

APPENDIX 2 線の帰属表

この表は、中性子放射化分析で現れてくる線をエネルギーの順に並べ (E_0)、その線を放出する放射性核種とその半減期、線の強度、同じ核種から放出される他の主要な線のエネルギー (E_1, E_2) とその強度 (%Int) をまとめたものである。Key 欄にマーク (*) がつけられているものは、核種同定の鍵となる重要な線である。

線のエネルギーが正確に求められていれば、この表を用いて放射性核種の同定を行うことができる。線のエネルギーが近い核種に間違っ同定しないためには、その他の線 (E_1, E_2) がスペクトル中にあり、かつ E_0, E_1, E_2 の強度比がここに示されている値と同じであることを確認する。その際、スペクトルに現れている強度比は、この表の強度比に Ge 半導体検出器の検出効率がかけられたものになっていることに注意すること。

表中強度の欄に記号が書かれているものは、次の意味をもっている。これらの強度比は Ge 半導体検出器の大きさやジオメトリに依存する。

E	escape peak	
		= $E - 511.00$ keV (single escape peak)
		= $E - 1022.00$ keV (double escape peak)
P	pair production peak	
		= 511.00 keV
S	sum peak	
		= $E_i + E_j$

この表は、

"The k_0 -Consistent IRI Gamma-ray Catalogue for INAA"

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の Table 3 "Gamma Rays from Radioactive Decay, Arranged by Energy" に、低エネルギー側の線などデータを補強して再構成したものである。

E0 (keV)	Nuclide	key	t _{1/2}	% Int	E1 (keV)	% Int	E2 (keV)	% Int	Remarks
27.47	I-125		60.14 d	37.4			Te KX		
35.46	I-125	*	60.14 d	6.75					
53.44	Ge-73*								
58.60	Co-60m	*	10.47 m	2.01	1332.5	0.25			
59.54	Am-241	*	432 y	36					
63.12	Yb-169		32.022 d	43.7	197.96	34.9	177.22	21.4	
63.58	Re-188m		18.6 m	21.6					
67.75	Ta-182		115 d	41.2	1121.3	34.7	1221.41	27.2	
68.75	Ge-73*								
69.67	Sm-153		1.946 d	4.312	103.18	28.3	97.43	0.729	
70.40	Pd-111m		5.5 h	8.31	172.18	33.6	391.18	5.37	
72.80	Pb Ka2			† 55					
74.67	U-239	*	23.47 m	48.1					
74.97	Pb Ka1			† 100					
75.34	Pa-233		27 d	1.17	94.67	10.2	98.44	16	
77.35	Hg-197	*	64.14 h	18.7					
80.19	I-131		8.04 d	2.62	364.48	80.8	636.97	7.5	
80.57	Ho-166	*	1.117 d	6.33	1379.32	0.93	1581.88	0.181	
80.96	Mo-101		14.6 m	3.84	191.97	18.7	590.93	16.3	
84.80	Pb Kb2			† 35					
86.79	Tb-160		72.3 d	13.38	879.36	29.8	298.58	26.8	
86.80	Pa-233		27.3 d	1.99	94.67	10.2	98.44	16	
87.30	Pb Kb1			† 10					
88.03	Ag-109m		39.8 s	3.61					
88.03	Cd-109	*	462.6 d	3.63					
88.37	Lu-176		3.635 d	8.9					
89.36	Hf-175		70.2 d	2.34	343.4	86.9	432.75	1.57	
89.73	Cd-117		2.49 h	3.26	273.35	27.9	1303.26	18.4	
91.10	Nd-147		10.98 d	27.9	531.01	13.1	319.42	1.95	
91.43	Ta-182		115 d	(E)	1121.3	34.7	1221.41	27.2	
92.20	Br-82		1.4708 d	0.745	776.5	83.2	554.3	70.4	
92.27	Ba-131		11.5 d	0.637	496.26	43.7	123.78	29.1	
92.37	Th-234		24.1 d	2.72	92.79	2.68	112.81	0.241	
92.79	Th-234		24.1 d	2.68	92.37	2.72	112.81	0.241	
94.66	U Ka2			† 56					
94.67	Pa-233		27 d	10.2	98.44	16	111	6	
94.70	Dy-165	*	2.334 h	3.58	361.67	0.841	633.42	0.567	
96.12	U-235		703800000 y	0.118	185.71	48.7	194.93	12.2	
96.55	Pt-191		2.9 d	3.27	538.91	13.7	409.48	8	
96.70	Ag-111		7.45 d	0.196	342.08	6.73	245.38	1.23	
96.88	Sm-153		1.946 d	0.007	103.18	28.3	97.43	0.729	
96.90	Pa-231		32800 y	0.088	299.93	2.37	302.52	1.7	
97.11	Rh-104m	*	4.34 m	2.79	128.95	(S)			
97.43	Sm-153		1.946 d	0.729	103.18	28.3	172.85	0.0658	
97.43	Gd-153	*	241.6 d	27.5	103.18	19.5	172.85	0.0285	
97.45	Ta-182		115 d	(S)	1121.3	34.7	1221.41	27.2	
98.19	Te-131m		1.25 d	0.0128	773.68	37.7	852.24	19.2	
98.44	U Ka1			† 100					
98.44	Pa-233		27 d	16	94.67	10.2	111	6	
98.88	Pt-195m	*	4.02 d	11.3	129.77	2.79	129.72	0.0847	
98.97	Am-241		432 y	0.0203	59.54	36			
99.08	W-183m		5.15 s	8.28	107.93	18.7	160.53	5.05	
99.30	Th-231		1.063 d	0.119	102.26	0.409	183.5	0.272	
99.50	Ac-228		6.1 h	1.3	911	25	968.79	15	
99.52	Np-239		2.355 d	15	277.6	14.1	228.18	10.7	
99.99	Pm-151		1.1833 d	2.52	340.05	22.4	167.72	7.83	
100.03	Te-131m		1.25 d	0.0726	773.68	37.7	852.24	19.2	
100.11	Ta-182		115 d	13.9	1121.3	34.7	1221.41	27.2	
100.40	Ac-228		6.1 h	0.12	911	25	968.79	15	
100.76	Pm-151		1.1833 d	0.0118	340.05	22.4	167.72	7.83	
100.90	Br-82		1.4708 d	0.0686	776.5	83.2	554.3	70.4	

100.90	Pa-231		32800 y	0.032	299.93	2.37	302.52	1.7
101.89	Te-131m		1.25 d	0.167	773.68	37.7	852.24	19.2
101.90	Pm-151		1.1833 d	1.29	340.05	22.4	167.72	7.83
102.07	Te-131m	*	1.25 d	7.88	773.68	37.7	852.24	19.2
102.26	Th-231		1.063 d	0.409	183.5	0.272	163.14	0.155
102.31	Gd-161		3.7 m	13.9	360.94	60.5	314.92	22.9
102.98	Se-81m	*	57.28 m	9.68	260.29	0.0571		
102.98	Am-241		432 y	0.0195	59.54	36		
103.08	Tb-161		6.91 d	0.113	106.14	0.0882		
103.16	Te-131m		1.25 d	0.0454	773.68	37.7	852.24	19.2
103.18	Sm-153	*	1.946 d	28.3	97.43	0.729	172.85	0.0658
103.18	Gd-153	*	241.6 d	19.5	97.43	27.5	172.85	0.0285
103.73	Np-239		2.355 d	23.9	277.6	14.1	228.18	10.7
103.84	Pd-109		13.7 h	0.000926	311.37	0.032	647.25	0.0243
103.92	Pa-233		27 d	0.691	94.67	10.2	98.44	16
104.00	Yb-177m	*	6.41 s	76.6	227.1	12.2		
104.35	Sm-155	*	22.1 m	75	245.79	3.75	141.44	2.02
104.81	Pm-151		1.1833 d	3.52	340.05	22.4	167.72	7.83
105.31	Eu-155	*	4.96 y	20.6	146.08	0.053		
105.35	Hf-177m		1.08 s	16.2	208.36	73.4	228.47	49.2
106.13	Np-239		2.355 d	22.7	277.6	14.1	228.18	10.7
106.14	Tb-161		6.91 d	0.0882	103.08	0.113		
106.49	Np-239		2.355 d	0.0479	277.6	14.1	228.18	10.7
106.51	Eu-154		8.8 y	(E)	123.1	40.4	1274.54	35.4
106.59	W-187		23.9 h	0.0245	685.74	26.4	479.53	21
107.02	Os-193		1.271 d	0.636	138.91	4.26	460.5	3.95
107.93	W-183m	*	5.15 s	18.7	99.08	8.28	160.53	5.05
108.12	Ba-131m	*	14.6 m	55.1				
108.16	Dy-165m		1.258 m	(S)	515.47	1.56	361.67	0.544
108.40	Th-233		22.3 m	0.3	111.90	0.1	459.32	1.39
109.19	U-235		703800000 y	1.5	185.71	48.7	194.93	12.2
109.29	Te-125m	*	58 d	0.281				
109.38	Te-131		25 m	0.0629	149.72	68.3	452.33	18.1
109.38	Te-131m		1.25 d	0.00412	773.68	37.7	852.24	19.2
109.40	La-140		1.678 d	0.2	1596.54	95.3	487.02	45.9
109.78	Yb-169		32.022 d	17.4	197.96	34.9	177.22	21.4
109.90	O-19		26.91 s	2.5	197.1	95.9	1356.9	55.8
110.37	Ta-182		115 d	0.0907	1121.3	34.7	1221.41	27.2
111.00	Pa-233		27 d	6	94.67	10.2	98.44	16
111.39	Er-171		7.52 h	20.4	308.33	64.4	295.67	28.9
111.86	Te-132		3.26 d	1.85	228.26	88.2	116.4	1.93
111.90	Te-131m		1.25 d	0.027	773.68	37.7	852.24	19.2
111.90	Th-233		22.3 m	0.1	108.4	0.301	459.32	1.39
112.58	Ga-72		14.1 h	0.187	834.09	95.6	2201.7	25.8
112.81	Th-234		24.1 d	0.241	92.37	2.72	92.79	2.68
112.95	Lu-177		6.71 d	6.4	208.36	11	321.31	0.222
112.95	Hf-177m		1.08 s	27.5	208.36	73.4	228.47	49.2
113.33	Te-131m		1.25 d	0.0114	773.68	37.7	852.24	19.2
113.59	Ba-140		12.746 d	0.0181	537.31	24.3	162.7	6.2
113.67	Ta-182		115 d	1.91	1121.3	34.7	1221.41	27.2
113.72	W-187		23.9 h	0.0742	685.74	26.4	479.53	21
113.81	Yb-175		4.19 d	1.9	396.33	6.5	282.52	3.06
114.31	Nd-149		1.73 h	18.7	211.29	27.2	270.15	10.7
114.87	Pa-233		27 d	2	94.67	10.2	98.44	16
115.17	Pb-212		10.64 h	0.592	238.59	42.9	300.13	3.33
115.18	Th-233		22.3 m	0.002	108.4	0.301	459.32	1.39
115.23	Te-129m		33.6 d	0.00027	695.84	2.99	729.53	0.696
115.41	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2
115.61	Th-231		1.063 d	0.00109	102.26	0.409	183.5	0.272
115.87	U-235		703800000 y	0.99	185.71	48.7	194.93	12.2
116.40	Te-132		3.26 d	1.93	228.26	88.2	111.86	1.85
116.41	Ta-182		115 d	0.433	1121.3	34.7	1221.41	27.2
116.69	Er-171		7.52 h	2.29	308.33	64.4	295.67	28.9

116.71	Nd-151	12.44 m	46.7	255.58	16.7	1180.6	15.3
116.81	Th-231	1.063 d	0.099	102.26	0.409	183.5	0.272
116.93	Np-239	2.355 d	8.6	277.6	14.1	228.18	10.7
118.19	Yb-169	32.022 d	1.87	197.96	34.9	177.22	21.4
118.85	Ba-140	12.746 d	0.0512	537.31	24.3	162.7	6.2
119.98	U-235	703800000 y	0.0258	185.71	48.7	194.93	12.2
120.49	Nd-147	10.98 d	0.395	91.1	27.9	531.01	13.1
120.97	Np-239	2.355 d	2.98	277.6	14.1	228.18	10.7
121.12	Se-75	119.77 d	17.2	264.66	59.1	136	59
121.12	Ge-75m	48 s	0.00534	139.53	38.7	136	0.0183
121.62	Zn-71	2.45 m	3.02	511.65	30.2	910.35	7.83
121.62	Zn-71m	3.94 h	2.85	386.38	93	487.36	62.3
121.62	Yb-177	1.9 h	3.41	150.4	20	1080.24	5.5
121.62	Lu-177m	160.9 d	6.04	413.66	17.1	319.03	10.1
121.78	Eu-152	13.33 y	28.3	344.29	26	1408	20.8
121.78	Eu-152m1	9.32 h	7.82	841.58	14.5	963.36	11.9
122.06	Co-57	* 271.79 d	85.6	136.47	10.68	14.4	9.16
122.30	Ra-223	11.43 d	1.18	269.39	13.6	154.19	5.58
122.43	Re-186	3.777 d	0.654	137.14	8.48	767.5	0.0262
123.10	Eu-154	8.8 y	40.4	1274.54	35.4	723.35	19.6
123.78	Ba-131	11.5 d	29.1	496.26	43.7	216.05	19.9
124.05	Er-171	7.52 h	9.09	308.33	64.4	295.67	28.9
124.93	Th-231	1.063 d	0.0558	102.26	0.409	183.5	0.272
125.30	Am-241	432.2 y	0.0041	59.54	100		
125.74	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
126.20	Te-131m	1.25 d	0.00538	773.68	37.7	852.24	19.2
127.22	Tc-101	14.2 m	2.85	306.83	88	545.05	5.99
127.37	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
127.48	Te-131m	1.25 d	0.0216	773.68	37.7	852.24	19.2
127.49	Cs-134m	* 2.91 h	12.6				
128.13	Ba-131	11.5 d	0.0159	496.26	43.7	123.78	29.1
128.49	Hf-177m	1.08 s	20.4	208.36	73.4	228.47	49.2
128.95	Rh-104m	4.34 m	(S)	97.11	2.79		
129.11	Ac-228	6.1 h	2.89	911	25	968.79	15
129.27	Br-82	1.47 d	0.03	776.5	83.2	554.3	70.4
129.30	Pu-239	* 24110 y	0.00631	413.71	0.00147		
129.43	Os-191	* 15.4 d	25.6				
129.43	Pt-191	2.9 d	3.2	538.91	13.7	409.48	8
129.60	Rh-105m	45 s	20				
129.72	Pt-195m	4.02 d	0.0847	98.88	11.3	129.77	2.79
129.77	Pt-195m	* 4.02 d	2.79	98.88	11.3	129.72	0.0847
130.17	Au-197m	7.8 s	3.18	279.11	72		
130.17	Hg-197m	23.8 h	(S)	133.96	34.1	164.95	0.266
130.52	Yb-169	32.022 d	11.2	197.96	34.9	177.22	21.4
130.61	Rn-219	3.96 s	0.127	271.19	10.2	401.8	6.61
131.09	Th-233	22.3 m	0.0651	108.4	0.301	459.32	1.39
131.11	La-140	1.678 d	0.438	1596.54	95.3	487.02	45.9
131.54	Eu-154	8.8 y	0.0206	123.1	40.4	1274.54	35.4
131.60	Th-228	1.9131 y	0.128	215.97	0.258	166.41	0.0818
132.71	Ba-140	12.746 d	0.202	537.31	24.3	162.7	6.2
132.94	Hf-181	42.39 d	35.8	482	80.6	345.83	15
133.33	Ag-110m	249.76 d	0.0729	657.76	94.6	884.68	72.6
133.40	Ce-146	13.52 m	7.4	316.8	50.9	218.4	18.8
133.46	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
133.54	Ce-144	* 284.9 d	11.1				
133.58	Ba-131	11.5 d	2.18	496.26	43.7	123.78	29.1
133.96	Hg-197m	* 23.8 h	34.1	164.95	0.266	130.17	(S)
134.04	Th-231	1.063 d	0.0241	102.26	0.409	183.5	0.272
134.17	Pd-109	13.7 h	0.00132	311.37	0.032	647.25	0.0243
134.23	W-187	23.9 h	8.56	685.74	26.4	479.53	21
134.23	Th-233	22.3 m	0.00239	108.4	0.301	459.32	1.39
134.85	Eu-154	8.8 y	0.00993	123.1	40.4	1274.54	35.4
134.87	Te-131m	1.25 d	0.687	773.68	37.7	852.24	19.2

135.41	I-134	52.6 m	4.09	847.06	95.3	884.13	64.9	
135.69	Ac-228	6.1 h	0.035	911	25	968.79	15	
136.00	Se-75	119.77 d	59	264.66	59.1	279.54	25.2	
136.00	Ge-75m	48 s	0.0183	139.53	38.7	264.66	0.0182	
136.17	Hf-181	42.39 d	5.79	482	80.6	132.94	35.8	
136.17	W-181	121.2 d	0.0318	152.21	0.0841			
136.34	Ir-192	73.831 d	0.181	316.51	83.1	468.07	47.6	
136.35	I-132	2.284 h	0.079	667.73	98.6	772.68	76.2	
136.47	Co-57	271.79 d	10.68	122.06	85.6	14.4	9.16	
136.70	Lu-177	6.71 d	0.0483	208.36	11	112.95	6.4	
136.70	Hf-177m	1.08 s	1.66	208.36	73.4	228.47	49.2	
137.14	Re-186	* 3.777 d	8.48	122.43	0.654	767.5	0.0262	
137.33	Ba-131	11.5 d	0.0318	496.26	43.7	123.78	29.1	
137.41	Br-82	1.4708 d	0.156	776.5	83.2	554.3	70.4	
137.59	Ac-228	6.1 h	0.152	911	25	968.79	15	
137.64	Te-131m	1.25 d	0.077	773.68	37.7	852.24	19.2	
137.65	Yb-175	4.19 d	0.116	396.33	6.5	282.52	3.06	
138.36	In-116m	54.15 m	3.29	1293.59	85.1	1097.29	56.2	
138.48	Pt-191	2.9 d	0.0239	538.91	13.7	409.48	8	
138.61	Yb-177	1.9 h	1.33	150.4	20	1080.24	5.5	
138.87	Nd-151	12.44 m	7.75	116.71	46.7	255.58	16.7	
138.91	Os-193	* 1.271 d	4.26	460.5	3.95	557.34	1.3	
139.08	As-77	1.6179 d	0.01	238.97	1.59	520.61	0.469	
139.28	Pm-151	1.1833 d	0.47	340.05	22.4	167.72	7.83	
139.53	Ge-75m	* 48 s	38.7	136	0.0183	264.66	0.0182	Cosmic bkg
140.47	Mo-99	2.7477 d	4.4	739.5	12	181.07	6.07	
140.47	Tc-99m	* 6.006 h	87.2					
140.76	U-235	703800000 y	4.54	185.71	48.7	194.93	12.2	
141.14	W-187	23.9 h	(S)	685.74	26.4	479.53	21	
141.18	Te-131	25 m	0.0277	149.72	68.3	452.33	18.1	
141.19	Ac-228	6.1 h	0.0473	911	25	968.79	15	
141.44	Sm-155	22.1 m	2.02	104.35	75	245.79	3.75	
142.53	Sc-46m	* 18.7 s	62					
142.65	Fe-59	44.496 d	1.02	1099.25	56.5	1291.6	43.2	
142.75	Zn-71m	3.94 h	5.58	386.38	93	487.36	62.3	
143.15	Pm-151	1.1833 d	0.212	340.05	22.4	167.72	7.83	
143.23	Th-233	22.3 m	0.0143	108.4	0.301	459.32	1.39	
143.57	Th-230	75400 y	0.0491	253.5	0.0111	185.77	0.00876	
143.76	U-235	703800000 y	9.3	185.71	48.7	194.93	12.2	
143.95	Hg-197	2.6725 d	(S)	191.36	0.608	268.7	0.0379	
144.19	Ra-223	11.43 d	3.25	269.39	13.6	154.19	5.58	
144.87	Yb-175	4.19 d	0.331	396.33	6.5	282.52	3.06	
145.30	Hg-197	2.6725 d	(S)	191.36	0.608	268.7	0.0379	
145.39	Bi-212	1.009 h	0.00701	727.29	6.7	1620.59	1.52	
145.44	Ce-141	* 32.5 d	48.3					
145.91	Th-231	1.063 d	0.0318	102.26	0.409	183.5	0.272	
146.03	Eu-154	8.8 y	0.0258	123.1	40.4	1274.54	35.4	
146.08	Eu-155	4.96 y	0.053	105.31	20.6			
146.08	Hg-197	2.6725 d	(S)	191.36	0.608	268.7	0.0379	
146.11	Ac-228	6.1 h	0.208	911	25	968.79	15	
146.79	Ta-182m	15.84 m	37.2	171.59	46.5	184.96	23.1	
147.17	Lu-177m	160.9 d	3.52	413.66	17.1	319.03	10.1	
147.18	I-132	2.284 h	0.237	667.73	98.6	772.68	76.2	
147.52	Pm-151	1.1833 d	0.159	340.05	22.4	167.72	7.83	
147.96	Eu-152	13.33 y	0.0395	121.78	28.3	344.29	26	
149.17	Ru-105	4.44 h	1.74	724.27	46.6	469.35	17.2	
149.22	Te-131m	1.25 d	0.0873	773.68	37.7	852.24	19.2	
149.72	Te-131	* 25 m	68.3	452.33	18.1	1146.96	4.84	
149.72	Te-131m	* 1.25 d	4.23	773.68	37.7	852.24	19.2	
150.20	Ge-77	11.3 h	0.0356	264.42	50.9	211.01	29.1	
150.40	Yb-177	* 1.9 h	20	1080.24	5.5	121.62	3.41	
150.82	Cd-111m	* 48.6 m	30.2	245.38	94			
150.93	U-235	703800000 y	0.285	185.71	48.7	194.93	12.2	

151.09	Te-131m		1.25 d	0.0762	773.68	37.7	852.24	19.2	
151.18	Kr-85m	*	4.48 h	75	304.87	13.7			
151.18	Sr-85m		1.1258 h	12.3	231.78	84.1			
151.42	Th-233		22.3 m	0.00875	108.4	0.301	459.32	1.39	
151.63	Sm-153		1.946 d	0.0114	103.18	28.3	97.43	0.729	
152.21	W-181	*	121.2 d	0.0841	136.17	0.0318			
152.42	Ta-182		115 d	7.17	1121.3	34.7	1221.41	27.2	
153.30	Hf-177m		1.08 s	22.2	208.36	73.4	228.47	49.2	
153.58	Th-233		22.3 m	0.0659	108.4	0	459.3	2	1.39
153.80	Dy-165m		1.258 m	0.245	515.47	1.56	361.67	0.544	
153.90	Xe-138		14.08 m	5.95	258.45	31.4	1768.38	16.6	
154.00	Ac-228		6.1 h	0.787	911	25	968.79	15	
154.19	Ra-223		11.43 d	5.58	269.39	13.6	323.9	3.8	
154.77	Os-193		1.271 d	0.03	138.91	4.26	460.5	3.95	
154.89	Nd-147		10.98 d	0.0279	91.1	27.9	531.01	13.1	
155.06	Re-188	*	16.98 h	14.9	633.08	1.25	478.02	1.04	
155.12	Hg-197		2.6725 d	(S)	191.36	0.608	268.7	0.0379	
155.84	Nd-149		1.73 h	6.05	211.29	27.2	114.31	18.7	
156.02	Sn-117m		13.61 d	2.1	158.56	86.3	314.58	(S)	
156.19	Pm-151		1.1833 d	0.147	340.05	22.4	167.72	7.83	
156.25	Eu-154		8.8 y	0.00993	123.1	40.4	1274.54	35.4	
156.36	Ge-77		11.3 h	0.759	264.42	50.9	211.01	29.1	
156.37	Ta-182		115 d	2.74	1121.3	34.7	1221.41	27.2	
157.14	Ba-131		11.5 d	0.199	496.26	43.7	123.78	29.1	
157.59	Hg-197		2.6725 d	(S)	191.36	0.608	268.7	0.0379	
158.38	Au-199	*	3.139 d	36.8	208.2	8.36			
158.38	Hg-199m		42.6 m	52.5	374.1	13.8			
158.56	In-117m		1.942 h	15.9	315.3	17.5			
158.56	Sn-117m	*	13.61 d	86.3	156.02	2.1	314.58	(S)	
158.59	Ra-223		11.43 d	0.00692	269.39	13.6	154.19	5.58	
158.81	Ta-182		115 d	(E)	1121.3	34.7	1221.41	27.2	
158.99	Te-123m	*	119.7 d	84					
159.03	Ge-77		11.3 h	0.218	264.42	50.9	211.01	29.1	
159.38	Sc-47	*	3.341 d	67.9					
159.70	Ge-77m								Cosmic bkg
159.75	Hf-177m		1.08 s	0.709	208.36	73.4	228.47	49.2	
160.00	Ac-227	*	21.77 y	0.0077					
160.32	Sn-123m	*	40.08 m	85.6					
160.53	W-183m		5.15 s	5.05	107.93	18.7	99.08	8.28	
160.60	Ba-133		10.54 y	0.598	356	62.1	302.85	18.4	
161.92	Se-77m	*	17.45 s	52.4					
162.39	In-116m2	*	2.18 s	100					
162.51	Th-233		22.3 m	0.171	108.4	0.301	459.32	1.39	
162.58	Th-233		22.3 m	0.15	108.4	0.301	459.32	1.39	
162.70	Ba-140		12.746 d	6.2	537.31	24.3	304.87	4.29	
162.84	Os-185		93.6 d	0.561	646.11	80.9	874.81	6.61	
162.90	Pm-151		1.1833 d	0.84	340.05	22.4	167.72	7.83	
163.14	Th-231		1.063 d	0.155	102.26	0.409	183.5	0.272	
163.36	U-235		703800000 y	4.7	185.71	48.7	194.93	12.2	
163.56	Pm-151		1.1833 d	1.5	340.05	22.4	167.72	7.83	
164.60	Bi-212		1.009 h	0.00395	727.29	6.7	1620.59	1.52	
164.95	Hg-197m		23.8 h	0.266	133.96	34.1	130.17	(S)	
165.21	Gd-161		3.7 m	2.6	360.94	60.5	314.92	22.9	
165.85	Ba-139	*	1.3798 h	22	1420.53	0.302	1254.68	0.0302	
165.85	Ce-139	*	137.66 d	79.9					
165.92	Kr-88		2.84 h	3.1	196.34	26	834.86	13	
166.41	Th-228		1.9131 y	0.0818	215.97	0.258	131.6	0.128	
167.72	Pm-151		1.1833 d	7.83	340.05	22.4	275.18	6.61	
167.85	Ta-182		115 d	(S)	1121.3	34.7	1221.41	27.2	
168.59	Sr-93		7.4 m	18	590.2	66.5	875.86	23.9	
168.90	Te-133m		55.4 m	7.6	912.58	62.9	647.4	21.4	
168.95	W-187		23.9 h	0.0025	685.74	26.4	479.53	21	
169.18	Th-233		22.3 m	0.335	108.4	0.301	459.32	1.39	

169.30	Ac-228	6.1 h	0.01	911	25	968.79	15
170.11	Pt-199	30.8 m	0.0222	542.96	14.7	493.74	5.73
170.67	Mg-27	9.462 m	0.788	843.76	72.9	1014.43	29.1
170.77	Th-233	22.3 m	0.13	108.4	0.301	459.32	1.39
171.02	Nd-151	12.44 m	4.12	116.71	46.7	255.58	16.7
171.59	Ta-182m	* 15.84 m	46.5	146.79	37.2	184.96	23.1
171.86	Lu-177m	160.9 d	4.79	413.66	17.1	319.03	10.1
172.18	Pd-111m	* 5.5 h	33.6	391.18	5.37	632.5	3.56
172.22	Pt-191	2.9 d	3.52	538.91	13.7	409.48	8
172.85	Sm-153	1.946 d	0.0658	103.18	28.3	97.43	0.729
172.85	Gd-153	241.6 d	0.0285	97.43	27.5	103.18	19.5
173.53	La-140	1.678 d	0.129	1596.54	95.3	487.02	45.9
174.18	Th-231	1.063 d	0.0204	102.26	0.409	183.5	0.272
174.30	Ac-228	6.1 h	0.202	911	25	968.79	15
174.39	Hf-177m	1.08 s	16.7	208.36	73.4	228.47	49.2
175.09	Nd-151	12.44 m	7.65	116.71	46.7	255.58	16.7
174.95	Ge-71m	* 20.4 ms	91				
175.35	Sc-48	1.821 d	7.46	983.5	100	1312.05	100
175.38	Er-171	7.52 h	0.089	308.33	64.4	295.67	28.9
175.71	Ra-223	11.43 d	0.0016	269.39	13.6	154.19	5.58
176.28	Ga-70	21.15 m	0.299	1039.33	0.676		
176.32	Sb-125	2.73 y	6.79	427.88	29.3	600.5	17.8
176.68	Pt-199	30.8 m	0.0281	542.96	14.7	493.74	5.73
176.71	Pb-212	10.64 h	0.0509	238.59	42.9	300.13	3.33
177.01	Hf-177m	1.08 s	4.84	208.36	73.4	228.47	49.2
177.15	Pm-151	1.1833 d	3.58	340.05	22.4	167.72	7.83
177.21	I-131	8.04 d	0.25	364.48	80.8	636.97	7.5
177.22	Yb-169	* 32.022 d	21.4	197.96	34.9	109.78	17.4
177.31	Ge-77	11.3 h	0.168	264.42	50.9	211.01	29.1
177.41	Ra-223	11.43 d	0.047	269.39	13.6	154.19	5.58
178.98	Pt-191	2.9 d	1.02	538.91	13.7	409.48	8
179.03	Th-233	22.3 m	0.0379	108.4	0.301	459.32	1.39
179.39	Ta-182	115 d	3.14	1121.3	34.7	1221.41	27.2
179.71	Ra-223	11.43 d	0.153	269.39	13.6	154.19	5.58
180.05	Os-193	1.271 d	0.182	138.91	4.26	460.5	3.95
180.80	Th-233	22.3 m	0.0008	108.4	0.301	459.32	1.39
180.87	Te-134	41.8 m	18	767.21	28	210.45	22.2
181.07	Mo-99	2.7477 d	6.07	739.5	12	140.47	4.4
181.24	Gd-161	3.7 m	0.75	360.94	60.5	314.92	22.9
181.71	Np-239	2.355 d	0.111	277.6	14.1	228.18	10.7
181.80	Os-193	1.271 d	0.193	138.91	4.26	460.5	3.95
182.26	Te-131m	1.25 d	0.717	773.68	37.7	852.24	19.2
182.44	Te-131m	1.25 d	0.855	773.68	37.7	852.24	19.2
182.50	U-235	703800000 y	1.47	185.71	48.7	194.93	12.2
182.96	Y-91	58.51 d	(E)	1204.96	0.3	693.96	(E)
183.18	Te-131m	1.25 d	0.153	773.68	37.7	852.24	19.2
183.49	I-132	2.284 h	0.158	667.73	98.6	772.68	76.2
183.50	Th-231	1.063 d	0.272	102.26	0.409	163.14	0.155
184.09	Tc-101	14.2 m	1.67	306.83	88	545.05	5.99
184.41	Ho-166	1.117 d	0.002	1379.32	0.93	1581.88	0.181
184.79	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
184.80	Ac-228	6.1 h	0.458	911	25	968.79	15
184.96	Ta-182m	15.84 m	23.1	171.59	46.5	146.79	37.2
185.71	U-235	* 703800000 y	48.7	194.93	12.2	143.76	9.3
185.77	Pt-199	30.8 m	3.25	542.96	14.7	493.74	5.73
185.77	Th-230	75400 y	0.00876	143.57	0.0491	253.5	0.0111
186.18	Ra-226	* 1600 y	3.29				
186.55	Pm-151	1.1833 d	0.165	340.05	22.4	167.72	7.83
186.68	Th-233	22.3 m	0.0339	108.4	0.301	459.32	1.39
187.71	Pt-191	2.9 d	0.416	538.91	13.7	409.48	8
188.27	Eu-154	8.8 y	0.227	123.1	40.4	1274.54	35.4
188.62	Nd-149	1.73 h	1.99	211.29	27.2	114.31	18.7
188.77	Th-231	1.063 d	0.0279	102.26	0.409	183.5	0.272

188.90	Pd-109m	*	4.69 m	55.1				
189.65	Te-131m		1.25 d	0.491	773.68	37.7	852.24	19.2
190.28	In-114m		49.51 d	15.4	558.43	4.38	725.24	4.33
190.31	Ba-141		18.27 m	45.9	304.18	25.2	276.91	23.3
190.54	Th-233		22.3 m	0.13	108.4	0.301	459.32	1.39
190.62	Hf-181		42.39 d	(S)	482	80.6	132.94	35.8
191.20	Ac-228		6.1 h	0.128	911	25	968.79	15
191.36	Pt-197	*	18.3 h	3.7	268.7	0.231		
191.36	Hg-197		2.6725 d	0.608	268.7	0.0379	143.95	(S)
191.69	Pt-199		30.8 m	2.37	542.96	14.7	493.74	5.73
191.94	Mo-101		14.6 m	18.7	590.93	16.3	1012.53	12.8
192.00	Nd-149		1.73 h	0.595	211.29	27.2	114.31	18.7
192.35	Fe-59		44.496 d	3.08	1099.25	56.5	1291.6	43.2
194.14	As-76		1.097 d	(E)	559.08	45	657.06	6.16
194.75	Ge-77		11.3 h	1.68	264.42	50.9	211.01	29.1
194.75	Ge-77m		52.9 s	0.482	215.48	20.8	419.72	0.0974
194.79	W-187		23.9 h	(S)	685.74	26.4	479.53	21
194.93	U-235		703800000 y	12.2	185.71	48.7	143.76	9.3
195.04	Th-233		22.3 m	0.154	108.4	0.301	459.32	1.39
195.54	Pt-191		2.9 d	0.0032	538.91	13.7	409.48	8
195.57	Lu-177m		160.9 d	0.839	413.66	17.1	319.03	10.1
196.34	Kr-88	*	2.84 h	26	834.86	13	1529.75	10.9
196.64	Nd-147		10.98 d	0.204	91.1	27.9	531.01	13.1
197.03	Tb-160		72.3 d	5.15	879.36	29.8	298.58	26.8
197.10	O-19	*	26.91 s	95.9	1356.9	55.8	109.9	3.1
197.37	Nd-151		12.44 m	0.337	116.71	46.7	255.58	16.7
197.96	Yb-169		32.022 d	34.9	177.22	21.4	109.78	17.4
198.35	Ta-182		115 d	1.52	1121.3	34.7	1221.41	27.2
198.60	Ge-75		1.3797 h	1.31	264.66	11.2	468.77	0.222
198.60	Se-75		119.77 d	1.53	264.66	59.1	136	59
198.91	Nd-149		1.73 h	1.45	211.29	27.2	114.31	18.7
199.71	Ac-228		6.1 h	0.368	911	25	968.79	15
200.15	Th-233		22.3 m	(S)	108.4	0.301	459.32	1.39
200.46	As-77		1.6179 d	0.000666	238.97	1.59	520.61	0.469
200.63	Te-131m	*	1.25 d	7.42	773.68	37.7	852.24	19.2
201.22	Te-134		41.8 m	8.69	767.21	28	210.45	22.2
201.39	Ir-192		73.831 d	0.454	316.51	83.1	468.07	47.6
201.71	Th-233		22.3 m	0.0325	108.4	0.301	459.32	1.39
201.94	Pm-151		1.1833 d	0.85	340.05	22.4	167.72	7.83
202.06	Se-75		119.77 d	(S)	264.66	59.1	136	59
202.10	U-235		703800000 y	3.64	185.71	48.7	194.93	12.2
202.47	Y-90m	*	3.19 h	96.6	479.49	90.7		
203.19	Np-239		2.355 d	(S)	277.6	14.1	228.18	10.7
203.58	Hg-205	*	5.2 m	2.2				
203.96	Te-131m		1.25 d	0.019	773.68	37.7	852.24	19.2
204.10	Sb-125		2.73 y	0.322	427.88	29.3	600.5	17.8
204.11	Hf-177m		1.08 s	19.8	208.36	73.4	228.47	49.2
204.20	Ac-228		6.1 h	0.21	911	25	968.79	15
205.31	U-235		703800000 y	4.7	185.71	48.7	194.93	12.2
205.58	Pb-214		27 m	0.0198	351.92	37	295.2	19.1
205.60	Np-239		2.355 d	(S)	277.6	14.1	228.18	10.7
205.80	Ir-192		73.831 d	3.25	316.51	83.1	468.07	47.6
205.94	Th-228		1.9131 y	0.0279	215.97	0.258	131.6	0.128
206.21	W-187		23.9 h	0.137	685.74	26.4	479.53	21
207.47	Te-131m		1.25 d	0.0341	773.68	37.7	852.24	19.2
207.80	Er-167m	*	2.28 s	41.6				
208.01	Sb-125		2.73 y	0.235	427.88	29.3	600.5	17.8
208.13	Nd-149		1.73 h	2.91	211.29	27.2	114.31	18.7
208.20	Au-199	*	3.139 d	8.36	158.38	36.8		
208.36	Lu-177	*	6.71 d	11	112.95	6.4	321.31	0.222
208.36	Hf-177m	*	1.08 s	73.4	228.47	49.2	378.5	37.9
208.71	Ge-77		11.3 h	0.891	264.42	50.9	211.01	29.1
208.94	Te-129		1.16 h	0.18	459.52	7.69	487.31	1.42

208.94	Te-129m	33.6 d	2.85E-05	695.84	2.99	729.53	0.696
208.95	Pt-191	2.9 d	0.136	538.91	13.7	409.48	8
208.97	Pm-151	1.1833 d	1.63	340.05	22.4	167.72	7.83
209.20	Ac-228	* 6.1 h	4.09	911	25	968.79	15
209.75	Np-239	2.355 d	3.31	277.6	14.1	228.18	10.7
210.27	Er-171	7.52 h	0.007	308.33	64.4	295.67	28.9
210.45	Te-134	41.8 m	22.2	767.21	28	277.95	20.8
210.46	Th-233	22.3 m	0.035	108.4	0.301	459.32	1.39
210.48	Te-129	1.16 h	0.00131	459.52	7.69	487.31	1.42
210.60	Ce-146	13.52 m	4.49	316.8	50.9	218.4	18.8
210.65	Gd-159	18.56 h	0.0177	363.5	11	348.13	0.216
210.89	Ac-228	6.1 h	0.229	911	25	968.79	15
210.92	Er-171	7.52 h	0.641	308.33	64.4	295.67	28.9
211.01	Ge-77	11.3 h	29.1	264.42	50.9	215.48	27
211.29	Nd-149	* 1.73 h	27.2	114.31	18.7	270.15	10.7
211.59	Nd-147	10.98 d	(S)	91.1	27.9	531.01	13.1
212.03	Mo-101	14.6 m	0.508	191.94	18.7	590.93	16.3
213.78	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
213.94	Pt-191	2.9 d	0.0088	538.91	13.7	409.48	8
213.97	Te-131m	1.25 d	0.372	773.68	37.7	852.24	19.2
214.42	Hf-177m	1.08 s	8.33	208.36	73.4	228.47	49.2
214.65	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8
214.90	Pd-107m	* 21.3 s	68.7				
215.25	Hf-180m	5.519 h	100	332.27	100	443.14	79.1
215.30	U-235	703800000 y	0.243	185.71	48.7	194.93	12.2
215.32	Te-131m	1.25 d	(E)	773.68	37.7	852.24	19.2
215.38	Te-131m	1.25 d	(E)	773.68	37.7	852.24	19.2
215.48	Ge-77	11.3 h	27	264.42	50.9	211.01	29.1
215.48	Ge-77m	* 52.9 s	20.8	194.75	0.482	419.72	0.0974
215.64	Tb-160	72.3 d	3.95	879.36	29.8	298.58	26.8
215.70	Ru-97	* 2.88 d	85.9	324.49	10.2	569.31	0.89
215.97	Th-228	1.9131 y	0.258	131.6	0.128	166.41	0.0818
216.05	Ba-131	11.5 d	19.9	496.26	43.7	123.78	29.1
216.15	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
216.67	Th-233	22.3 m	0.015	108.4	0.301	459.32	1.39
218.09	Lu-177m	160.9 d	3.12	413.66	17.1	319.03	10.1
218.14	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
218.40	Ce-146	13.52 m	18.8	316.8	50.9	264.8	8.19
218.90	Zr-97	16.9 h	0.175	507.7	5.05	1147.94	2.64
219.10	Ge-77	11.3 h	0.137	264.42	50.9	211.01	29.1
219.13	Os-193	1.271 d	0.277	138.91	4.26	460.5	3.95
219.33	Pt-199	30.8 m	0.387	542.96	14.7	493.74	5.73
219.69	Pt-191	2.9 d	0.658	538.91	13.7	409.48	8
220.19	Np-239	2.355 d	(S)	277.6	14.1	228.18	10.7
220.96	Cd-117	2.49 h	1.19	273.35	27.9	1303.26	18.4
221.08	Ag-110m	249.76 d	0.068	657.76	94.6	884.68	72.6
221.50	Br-82	1.4708 d	2.25	776.5	83.2	554.3	70.4
221.53	Te-131	25 m	0.0329	149.72	68.3	452.33	18.1
221.77	Pt-191	2.9 d	0.115	538.91	13.7	409.48	8
222.09	Ta-182	* 115 d	7.59	1121.3	34.7	1221.41	27.2
223.19	Np-239	2.355 d	(S)	277.6	14.1	228.18	10.7
223.24	Ba-133	10.54 y	0.459	356	62.1	302.85	18.4
223.70	Pt-191	2.9 d	0.112	538.91	13.7	409.48	8
223.81	Ac-228	6.1 h	0.341	911	25	968.79	15
225.24	Se-83	22.5 m	31.8	356.71	68.6	510.04	44.2
225.90	Pt-199	30.8 m	0.16	542.96	14.7	493.74	5.73
226.02	Gd-159	18.56 h	0.21	363.5	11	348.13	0.216
226.05	Th-233	22.3 m	0.0229	108.4	0.301	459.32	1.39
227.10	Yb-177m	6.41 s	12.2	104	76.6		
227.14	Pm-151	1.1833 d	0.308	340.05	22.4	167.72	7.83
227.54	Te-131m	1.25 d	0.0145	773.68	37.7	852.24	19.2
228.18	Np-239	2.355 d	10.7	277.6	14.1	228.18	10.7
228.26	Te-132	* 3.26 d	88.2	116.4	1.93	111.86	1.85

228.47	Hf-177m	1.08 s	49.2	208.36	73.4	378.5	37.9	
228.60	Pt-195m	4.02 d	(S)	98.88	11.3	129.77	2.79	
229.31	Ta-182	115 d	3.62	1121.3	34.7	1221.41	27.2	
229.57	Nd-149	1.73 h	0.57	211.29	27.2	114.31	18.7	
229.59	Hf-175	70 d	0.774	343.4	86.9	432.75	1.57	
230.20	Pd-111	23.4 m	0.0233	579.97	0.836	1458.85	0.561	
230.62	Tb-160	72.3 d	0.0726	879.36	29.8	298.58	26.8	
230.84	Ga-72	14.1 h	0.0229	834.09	95.6	2201.7	25.8	
231.28	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
231.45	Cd-115	2.228 d	0.738	527.91	27.5	492.36	8.02	
231.58	Ce-143	1.375 d	2.02	293.28	42	664.58	5.25	
231.78	Sr-85m	* 1.1258 h	84.1	151.18	12.3			
232.08	Eu-154	8.8 y	0.0212	123.1	40.4	1274.54	35.4	
232.40	Pm-151	1.1833 d	1.03	340.05	22.4	167.72	7.83	
233.50	Tl-208	5.053 m	0.312	2614.59	98.6	583.1	84.1	
233.74	Tc-101	14.2 m	0.272	306.83	88	545.05	5.99	
233.84	Hf-177m	1.08 s	7.54	208.36	73.4	228.47	49.2	
234.15	Os-185	93.6 d	0.416	646.11	80.9	874.81	6.61	
234.59	Os-193	1.271 d	0.0513	138.91	4.26	460.5	3.95	
234.62	Pa-234m	1.17 m	0.084	1001.01	0.559	809.88	0.458	
235.50	I-134	52.6 m	2.18	847.06	95.3	884.13	64.9	
235.68	Nb-95m	* 3.61 d	24.9					
236.74	Pm-151	1.1833 d	0.192	340.05	22.4	167.72	7.83	
237.06	Pm-151	1.1833 d	0.515	340.05	22.4	167.72	7.83	
237.17	Er-171	7.52 h	0.302	308.33	64.4	295.67	28.9	
237.95	Th-233	22.3 m	0.00229	108.4	0.301	459.32	1.39	
238.22	Tc-101	14.2 m	0.306	306.83	88	545.05	5.99	
238.40	Pb-214	27 m	0.0103	351.92	37	295.2	19.1	Ra daughter
238.63	Pb-212	* 10.64 h	42.9	300.13	3.33	115.17	0.592	Th daughter
238.97	As-77	* 1.6179 d	1.59	520.61	0.469	249.78	0.409	
239.15	W-187	23.9 h	0.0834	685.74	26.4	479.53	21	
239.61	Ba-131	11.5 d	2.41	496.26	43.7	123.78	29.1	
239.88	Pt-199	30.8 m	0.181	542.96	14.7	493.74	5.73	
240.06	Pm-151	1.1833 d	3.6	340.05	22.4	167.72	7.83	
240.11	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
240.20	Nd-149	* 1.73 h	3.95	211.29	27.2	114.31	18.7	
240.34	Yb-169	32.022 d	0.128	197.96	34.9	177.22	21.4	
240.91	Pt-199	30.8 m	0.0295	542.96	14.7	493.74	5.73	
240.93	Te-131m	* 1.25 d	7.46	773.68	37.7	852.24	19.2	
240.97	Ra-224	* 3.66 d	3.8					Th daughter
241.63	Sr-92	2.71 h	2.97	1384.06	90	953.4	3.6	
241.90	La-140	1.678 d	0.473	1596.54	95.3	487.02	45.9	
241.98	Pb-214	27 m	7.45	351.92	37	295.2	19.1	Ra daughter
242.22	Te-129m	33.6 d	0.000667	695.84	2.99	729.53	0.696	
242.66	Xe-138	14.08 m	3.5	258.45	31.4	1768.38	16.6	
244.17	Si-31	2.622 h	(E)	1266.17	0.07	755.17	(E)	
244.63	Pt-191	2.9 d	0.0032	538.91	13.7	409.48	8	
244.69	Eu-152	13.33 y	7.5	121.78	28.3	344.29	26	
244.69	Eu-152m1	9.32 h	0.0327	841.58	14.5	963.36	11.9	
245.33	Pa-231	32800 y	0.00703	299.93	2.37	302.52	1.7	
245.38	Ag-111	* 7.45 d	1.23	342.08	6.73	96.7	0.196	
245.38	Cd-111m	48.6 m	94	150.82	30.2			
245.71	Nd-149	1.73 h	1.04	211.29	27.2	114.31	18.7	
245.79	Sm-155	22.1 m	3.75	104.35	75	141.44	2.02	
246.28	W-187	23.9 h	0.114	685.74	26.4	479.53	21	
246.45	Pt-199	30.8 m	2.16	542.96	14.7	493.74	5.73	
246.85	Ba-131	11.5 d	0.596	496.26	43.7	123.78	29.1	
246.87	U-235	703800000 y	0.53	185.71	48.7	194.93	12.2	
247.13	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
247.34	Th-231	1.063 d	(S)	102.26	0.409	183.5	0.272	
247.77	Yb-169	32.022 d	(S)	197.96	34.9	177.22	21.4	
247.97	Eu-154	8.8 y	6.59	123.1	40.4	1274.54	35.4	
248.25	Pa-233	27 d	0.054	94.67	10.2	98.44	16	

249.41	Ba-131	11.5 d	2.81	496.26	43.7	123.78	29.1
249.65	Lu-177	6.71 d	0.21	208.36	11	112.95	6.4
249.65	Hf-177m	1.08 s	7.24	208.36	73.4	228.47	49.2
249.78	As-77	1.6179 d	0.409	238.97	1.59	520.61	0.469
249.79	Xe-135	* 9.104 h	90	608.18	2.8		
250.58	Te-129	1.16 h	0.383	459.52	7.69	487.31	1.42
250.58	Te-129m	33.6 d	0.000393	695.84	2.99	729.53	0.696
250.63	Th-233	22.3 m	0.0047	108.4	0.301	459.32	1.39
251.13	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8
251.46	Yb-175	4.19 d	0.0844	396.33	6.5	282.52	3.06
251.61	Eu-152	13.33 y	0.0625	121.78	28.3	344.29	26
251.61	Os-193	1.271 d	0.216	138.91	4.26	460.5	3.95
252.40	Tl-208	5.053 m	0.799	2614.59	98.6	583.1	84.1
252.53	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
252.91	Th-233	22.3 m	0.0119	108.4	0.301	459.32	1.39
253.16	Te-131m	1.25 d	0.646	773.68	37.7	852.24	19.2
253.50	Th-230	75400 y	0.0111	143.57	0.0491	185.77	0.00876
254.22	Pm-151	1.1833 d	0.161	340.05	22.4	167.72	7.83
254.27	Zr-97	16.9 h	1.25	507.7	5.05	1147.94	2.64
254.42	Np-239	2.355 d	0.0985	277.6	14.1	228.18	10.7
254.65	Ge-77	11.3 h	0.2	264.42	50.9	211.01	29.1
254.65	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8
254.95	I-132	2.284 h	0.187	667.73	98.6	772.68	76.2
255.07	Sn-113	* 115.09 d	1.82				
255.46	Te-131m	1.25 d	0.293	773.68	37.7	852.24	19.2
255.58	Nd-151	* 12.44 m	16.7	116.71	46.7	1180.6	15.3
255.75	Pa-231	32800 y	0.1	299.93	2.37	302.52	1.7
256.48	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
257.30	Th-233	22.3 m	0.0679	108.4	0.301	459.32	1.39
257.50	Ac-228	6.1 h	0.0218	911	25	968.79	15
258.06	Nd-149	1.73 h	0.381	211.29	27.2	114.31	18.7
258.09	Pm-151	1.1833 d	0.541	340.05	22.4	167.72	7.83
258.23	Pa-234m	1.17 m	0.0545	1001.01	0.559	809.88	0.458
258.45	Xe-138	* 14.08 m	31.4	1768.38	16.6	396.56	6.29
258.46	Pa-233	27 d	0.00537	94.67	10.2	98.44	16
258.63	Gd-161	3.7 m	0.99	360.94	60.5	314.92	22.9
258.80	Pb-214	27 m	0.968	351.92	37	295.2	19.1
259.49	Pt-195m	4.02 d	(S)	98.88	11.3	129.77	2.79
260.16	Pa-231	32800 y	0.182	299.93	2.37	302.52	1.7
260.29	Se-81m	57.28 m	0.0571	102.98	9.68		
260.91	Cd-115	2.228 d	1.93	527.91	27.5	492.36	8.02
261.08	Yb-169	32.022 d	1.8	197.96	34.9	177.22	21.4
261.55	Te-133m	55.4 m	8.8	912.58	62.9	647.4	21.4
262.75	I-132	2.284 h	1.43	667.73	98.6	772.68	76.2
262.85	Ru-105	4.44 h	6.49	724.27	46.6	469.35	17.2
263.53	Nd-151	12.44 m	0.795	116.71	46.7	255.58	16.7
263.70	Ac-228	6.1 h	0.0329	911	25	968.79	15
264.07	Ta-182	115 d	3.62	1121.3	34.7	1221.41	27.2
264.42	Ge-77	* 11.3 h	50.9	211.01	29.1	215.48	27
264.66	Ge-75	* 1.3797 h	11.2	198.6	1.31	468.77	0.222
264.66	Se-75	* 119.77 d	59.1	136	59	279.54	25.2
264.66	Ge-75m	48 s	0.0182	139.53	38.7	136	0.0183
264.80	Ce-146	13.52 m	8.19	316.8	50.9	218.4	18.8
265.56	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
266.09	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
266.47	U-235	703800000 y	0.054	185.71	48.7	194.93	12.2
266.55	La-140	1.678 d	0.451	1596.54	95.3	487.02	45.9
266.91	Y-93	* 10.25 h	6.79	947.18	1.95		
267.00	Cd-115	2.228 d	0.0919	527.91	27.5	492.36	8.02
267.08	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
267.69	Nd-149	1.73 h	6.05	211.29	27.2	114.31	18.7
267.88	Ge-77	11.3 h	0.281	264.42	50.9	211.01	29.1
268.27	Ba-135m	* 1.1746 d	15.6				

268.70	Pt-197	18.3 h	0.231	191.36	3.7		
268.70	Hg-197	2.6725 d	0.0379	191.36	0.608	143.95	(S)
268.77	Pt-191	2.9 d	1.64	538.91	13.7	409.48	8
268.79	Lu-177m	160.9 d	3.33	413.66	17.1	319.03	10.1
268.87	Pt-199	30.8 m	(S)	542.96	14.7	493.74	5.73
269.10	Te-131m	1.25 d	0.0512	773.68	37.7	852.24	19.2
269.11	Hf-181	42.39 d	(S)	482	80.6	132.94	35.8
269.39	Ra-223	* 11.43 d	13.6	154.19	5.58	323.9	3.8
269.60	Fe-59	44.496 d	(E)	1099.25	56.5	1291.6	43.2
269.83	Eu-152	13.33 y	0.00813	121.78	28.3	344.29	26
270.14	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8
270.15	Nd-149	1.73 h	10.7	211.29	27.2	114.31	18.7
270.17	Ge-75	1.3797 h	0.00339	264.66	11.2	198.6	1.31
270.21	Ac-228	* 6.1 h	3.77	911	25	968.79	15
270.30	Te-129	1.16 h	0.00462	459.52	7.69	487.31	1.42
270.45	Pm-151	1.1833 d	0.065	340.05	22.4	167.72	7.83
270.53	Eu-152	13.33 y	0.00195	121.78	28.3	344.29	26
270.78	Eu-152	13.33 y	(E)	121.78	28.3	344.29	26
270.83	As-77	1.6179 d	0.00682	238.97	1.59	520.61	0.469
270.85	Gd-161	3.7 m	0.88	360.94	60.5	314.92	22.9
271.13	Eu-152	13.33 y	0.0729	121.78	28.3	344.29	26
271.13	Eu-152m1	9.32 h	0.0758	841.58	14.5	963.36	11.9
271.19	Rn-219	* 3.96 s	10.2	401.8	6.61	130.61	0.127
271.60	Pa-233	27 d	0.283	94.67	10.2	98.44	16
272.26	Zr-97	16.9 h	0.25	507.7	5.05	1147.94	2.64
272.85	Np-239	2.355 d	0.0748	277.6	14.1	228.18	10.7
273.35	Cd-117	2.49 h	27.9	1303.26	18.4	344.46	17.9
273.50	Br-82	1.4708 d	0.842	776.5	83.2	554.3	70.4
273.75	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
274.80	Pb-214	27 m	0.588	351.92	37	295.2	19.1
275.18	Pm-151	1.1833 d	6.61	340.05	22.4	167.72	7.83
275.38	Nd-147	10.98 d	0.8	91.1	27.9	531.01	13.1
275.99	Se-81	* 18.5 m	0.869	290.12	0.765	828.34	0.325
276.09	Ba-133m	* 1.621 d	18				
276.39	Ba-133	* 10.54 y	7.08	356	62.1	302.85	18.4
276.91	Ba-141	18.27 m	23.3	190.31	45.9	304.18	25.2
277.00	Pa-231	32800 y	0.062	299.93	2.37	302.52	1.7
277.07	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
277.19	Er-171	7.52 h	0.579	308.33	64.4	295.67	28.9
277.31	Tl-208	5.053 m	6.79	2614.59	98.6	583.1	84.1
277.60	Np-239	* 2.355 d	14.1	277.6	14.1	228.18	10.7
277.95	Te-134	41.8 m	20.8	767.21	28	210.45	22.2
278.08	Te-132	3.26 d	(S)	228.26	88.2	116.4	1.93
278.19	Te-131	25 m	0.0984	149.72	68.3	452.33	18.1
278.37	Te-129	1.16 h	0.566	459.52	7.69	487.31	1.42
278.37	Te-129m	33.6 d	0.00058	695.84	2.99	729.53	0.696
278.57	Te-131m	* 1.25 d	1.65	773.68	37.7	852.24	19.2
278.59	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
278.79	I-132	2.284 h	0.0395	667.73	98.6	772.68	76.2
278.99	Ac-228	6.1 h	0.229	911	25	968.79	15
279.11	Au-197m	7.8 s	72	130.17	3.18		
279.19	Hg-203	* 46.6 d	81.5				
279.19	Pb-203	* 2.169 d	80.8	401.31	3.43	680.5	0.72
279.50	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
279.54	Ge-75	1.3797 h	0.00567	264.66	11.2	198.6	1.31
279.54	Se-75	119.77 d	25.2	264.66	59.1	136	59
279.76	Dy-165	2.334 h	0.498	94.7	3.58	361.67	0.841
280.09	Pm-151	1.1833 d	0.237	340.05	22.4	167.72	7.83
280.19	Te-131	25 m	0.0171	149.72	68.3	452.33	18.1
280.45	Os-193	1.271 d	1.23	138.91	4.26	460.5	3.95
280.52	Rh-105	1.4733 d	0.166	319.22	18	306.28	5.12
281.23	Te-129	1.16 h	0.164	459.52	7.69	487.31	1.42
281.41	Te-129m	33.6 d	0.000566	695.84	2.99	729.53	0.696

281.52	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2		
281.64	As-77	1.6179 d	0.0483	238.97	1.59	520.61	0.469		
281.70	Te-129	1.16 h	0.00154	459.52	7.69	487.31	1.42		
281.74	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2		
281.79	Hf-177m	1.08 s	17.7	208.36	73.4	228.47	49.2		
281.90	Ac-228	6.1 h	0.458	911	25	968.79	15		
282.30	Hf-175	70 d	(S)	343.4	86.9	432.75	1.57		
282.52	Yb-175	4.19 d	3.06	396.33	6.5	113.81	1.9		
283.24	Te-131m	1.25 d	0.383	773.68	37.7	852.24	19.2		
283.26	Ir-192	73.831 d	0.252	316.51	83.1	468.07	47.6		
283.52	Pa-231	32800 y	1.59	299.93	2.37	302.52	1.7		
283.55	Gd-161	3.7 m	6	360.94	60.5	314.92	22.9		
283.82	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8		
284.26	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8		
284.30	I-131	8.04 d	6.03	364.48	80.8	636.97	7.5		
284.76	I-132	2.284 h	0.79	667.73	98.6	772.68	76.2		
285.26	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39		
285.44	Th-233	22.3 m	0.021	108.4	0.301	459.32	1.39		
285.46	Np-239	2.355 d	0.744	277.6	14.1	228.18	10.7		
286.03	Pm-149	2.2117 d	2.85	859.42	0.0936	591.08	0.0625		
287.00	Yb-169	32.022 d	(S)	197.96	34.9	177.22	21.4		
288.15	Bi-212	1.009 h	0.341	727.29	6.7	1620.59	1.52		
288.21	Ra-223	11.43 d	0.154	269.39	13.6	154.19	5.58		
288.46	I-135	6.55 h	3.08	1260.42	28.5	1131.52	22.5		
288.82	Os-193	1.271 d	0.141	138.91	4.26	460.5	3.95		
289.39	Ga-72	14.1 h	0.19	834.09	95.6	2201.7	25.8		
289.62	Pd-111	23.4 m	0.102	579.97	0.836	1458.85	0.561		
289.62	Pd-111m	5.5 h	1.04	391.18	5.37	632.5	3.56		
290.12	Se-81	*	18.5 m	0.765	275.99	0.869	828.34	0.325	
290.71	Pm-151	1.1833 d	0.795	340.05	22.4	167.72	7.83		
291.38	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8		
291.50	Hf-177m	1.08 s	1.35	208.36	73.4	228.47	49.2		
291.69	U-235	703800000 y	0.0108	185.71	48.7	194.93	12.2		
292.07	Cd-117	2.49 h	0.655	273.35	27.9	1303.26	18.4		
293.28	Ce-143	*	1.375 d	42	664.58	5.25	721.96	5.12	
293.55	Ir-194	19.15 h	2.52	328.46	13	645.16	1.15		
294.47	Ba-131	11.5 d	0.159	496.26	43.7	123.78	29.1		
294.79	Nd-149	1.73 h	0.582	211.29	27.2	114.31	18.7		
294.95	Ru-103	39.254 d	0.25	497.05	88.6	610.3	5.63		
295.14	Tc-101	14.2 m	0.0533	306.83	88	545.05	5.99		
295.22	Pb-214	*	27 m	19.1	351.92	37	241.98	7.45	Ra daughter
295.50	Br-82	1.4708 d	(E)	776.5	83.2	554.3	70.4		
295.67	Er-171	7.52 h	28.9	308.33	64.4	111.39	20.4		
295.80	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2		
295.93	Eu-152	13.33 y	0.441	121.78	28.3	344.29	26		
295.96	Ir-192	73.831 d	28.3	316.51	83.1	468.07	47.6		
296.45	Hf-177m	1.08 s	6.38	208.36	73.4	228.47	49.2		
296.51	Pt-199	30.8 m	(S)	542.96	14.7	493.74	5.73		
296.72	Te-131m	1.25 d	0.0358	773.68	37.7	852.24	19.2		
297.10	Te-131	25 m	0.0495	149.72	68.3	452.33	18.1		
297.99	Pt-199	30.8 m	0.0487	542.96	14.7	493.74	5.73		
298.46	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2		
298.51	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39		
298.58	Tb-160	72.3 d	26.8	879.36	29.8	966.15	25		
298.83	Os-193	1.271 d	0.186	138.91	4.26	460.5	3.95		
298.87	Pa-233	27 d	0.0252	94.67	10.2	98.44	16		
299.05	Hf-177m	1.08 s	1.95	208.36	73.4	228.47	49.2		
299.93	Pa-231	32800 y	2.37	302.52	1.7	283.52	1.59		
300.13	Pb-212	10.64 h	3.33	238.59	42.9	115.17	0.592		
300.18	Pa-233	27 d	6.2	94.67	10.2	98.44	16		
300.63	Nd-151	12.44 m	1.96	116.71	46.7	255.58	16.7		
300.76	Ir-194	19.15 h	0.35	328.46	13	293.55	2.52		
301.00	As-77	1.6179 d	0.000716	238.97	1.59	520.61	0.469		

301.12	Nd-149	1.73 h	0.38	211.29	27.2	114.31	18.7	
301.25	Eu-154	8.8 y	0.00993	123.1	40.4	1274.54	35.4	
301.99	I-132	2.284 h	0.00494	667.73	98.6	772.68	76.2	
302.05	Pm-151	1.1833 d	0.0134	340.05	22.4	167.72	7.83	
302.43	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
302.46	Pa-231	32800 y	0.325	299.93	2.37	302.52	1.7	
302.52	Pa-231	32800 y	1.7	299.93	2.37	283.52	1.59	
302.70	Te-131m	1.25 d	0.0385	773.68	37.7	852.24	19.2	
302.85	Ba-133	10.54 y	18.4	356	62.1	383.84	8.91	
303.92	Se-75	119.77 d	1.08	264.66	59.1	136	59	
304.02	Te-131m	1.25 d	0.0381	773.68	37.7	852.24	19.2	
304.18	Ba-141	*	18.27 m	25.2	190.31	45.9	276.91	23.3
304.72	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
304.87	Kr-85m	4.48 h	13.7	151.18	75			
304.87	Ba-140	12.746 d	4.29	537.31	24.3	162.7	6.2	
305.12	Eu-154	8.8 y	0.0178	123.1	40.4	1274.54	35.4	
305.18	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
305.50	Hf-177m	1.08 s	2.29	208.36	73.4	228.47	49.2	
305.50	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8	
305.50	Pb-214	27 m	0.0325	351.92	37	295.2	19.1	
305.55	Gd-159	18.56 h	0.0592	363.5	11	348.13	0.216	
306.28	Rh-105	*	1.4733 d	5.12	319.22	18	280.52	0.166
306.36	I-132	2.284 h	0.109	667.73	98.6	772.68	76.2	
306.75	Pm-151	1.1833 d	0.243	340.05	22.4	167.72	7.83	
306.83	Tc-101	*	14.2 m	88	545.05	5.99	127.22	2.85
306.85	La-140	1.678 d	0.021	1596.54	95.3	487.02	45.9	
307.74	Yb-169	32.022 d	10.8	197.96	34.9	177.22	21.4	
308.33	Er-171	*	7.52 h	64.4	295.67	28.9	111.39	20.4
308.45	Ir-192	73.831 d	29.3	316.51	83.1	468.07	47.6	
309.23	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
309.39	Te-131m	1.25 d	0.356	773.68	37.7	852.24	19.2	
309.41	Ac-228	6.1 h	0.0434	911	25	968.79	15	
309.56	Tb-160	72.3 d	0.856	879.36	29.8	298.58	26.8	
310.02	I-132	2.284 h	0.0888	667.73	98.6	772.68	76.2	
310.50	Co-60	5.271 y	(E)	1332.5	100	1173.24	99.9	
310.93	Nd-149	1.73 h	0.519	211.29	27.2	114.31	18.7	
311.37	Pd-109	13.7 h	0.032	647.25	0.0243	781.42	0.0112	
311.39	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
312.01	Pa-233	*	27 d	36	94.67	10.2	98.44	16
312.35	K-42	12.36 h	0.35	1524.58	18.7	899.21	0.0534	
312.58	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
312.88	Pa-231	32800 y	0.112	299.93	2.37	302.52	1.7	
313.49	Ge-77	11.3 h	0.0193	264.42	50.9	211.01	29.1	
313.71	Hf-177m	1.08 s	1.77	208.36	73.4	228.47	49.2	
313.99	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
314.10	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
314.30	Ac-228	6.1 h	0.156	911	25	968.79	15	
314.58	Sn-117m	13.61 d	(S)	158.56	86.3	156.02	2.1	
314.92	Gd-161	*	3.7 m	22.9	360.94	60.5	102.31	13.9
315.17	Eu-152	13.33 y	0.0504	121.78	28.3	344.29	26	
315.30	In-117m	*	1.942 h	17.5	158.56	15.9		
315.60	Eu-154	8.8 y	0.00461	123.1	40.4	1274.54	35.4	
315.88	Np-239	2.355 d	1.59	277.6	14.1	228.18	10.7	
316.10	I-132	2.284 h	0.158	667.73	98.6	772.68	76.2	
316.15	Yb-169	32.022 d	2.79E-05	197.96	34.9	177.22	21.4	
316.50	Ru-105	4.44 h	11	724.27	46.6	469.35	17.2	
316.51	Ir-192	*	73.831 d	83.1	468.07	47.6	308.45	29.3
316.80	Ce-146	*	13.52 m	50.9	218.4	18.8	264.8	8.19
317.06	Pt-199	30.8 m	4.87	542.96	14.7	493.74	5.73	
317.13	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
318.08	I-131	8.04 d	0.0816	364.48	80.8	636.97	7.5	
318.33	Ba-131	11.5 d	(S)	496.26	43.7	123.78	29.1	
318.38	Ta-182m	15.84 m	6.54	171.59	46.5	146.79	37.2	

319.03	Lu-177m	160.9 d	10.1	413.66	17.1	121.62	6.04
319.22	Rh-105	1.4733 d	18	306.28	5.12	280.52	0.166
319.42	Nd-147	10.98 d	1.95	91.1	27.9	531.01	13.1
320.08	Ti-51	* 5.76 m	93	928.64	6.87	608.56	1.17
320.08	Cr-51	* 27.704 d	9.83				
320.15	Mg-28	20.9 h	(E)	1342.15	54.1	941.56	36.2
320.19	Nd-151	12.44 m	0.902	116.71	46.7	255.58	16.7
320.25	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8
320.31	Ac-228	6.1 h	(S)	911	25	968.79	15
320.60	Te-129m	33.6 d	0.000608	695.84	2.99	729.53	0.696
320.74	Ta-182	115 d	(E)	1121.3	34.7	1221.41	27.2
320.77	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
321.02	Sb-125	2.73 y	0.409	427.88	29.3	600.5	17.8
321.31	Lu-177	6.71 d	0.222	208.36	11	112.95	6.4
321.31	Hf-177m	1.08 s	1.49	208.36	73.4	228.47	49.2
321.59	Os-193	1.271 d	1.28	138.91	4.26	460.5	3.95
321.89	Ac-228	6.1 h	0.25	911	25	968.79	15
322.04	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
322.04	Eu-154	8.8 y	0.0674	123.1	40.4	1274.54	35.4
322.20	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
322.95	Re-188	16.98 h	0.0157	155.06	14.9	633.08	1.25
323.24	Ba-131	11.5 d	0.00994	496.26	43.7	123.78	29.1
323.63	Pt-199	30.8 m	0.249	542.96	14.7	493.74	5.73
323.90	Ra-223	11.43 d	3.8	269.39	13.6	154.19	5.58
323.91	Pm-151	1.1833 d	1.21	340.05	22.4	167.72	7.83
324.49	Ru-97	2.88 d	10.2	215.7	85.9	569.31	0.89
324.81	Eu-152	13.33 y	0.075	121.78	28.3	344.29	26
325.78	I-131	8.04 d	0.239	364.48	80.8	636.97	7.5
326.06	Ge-77	11.3 h	0.0254	264.42	50.9	211.01	29.1
326.11	Ru-105	4.44 h	1.05	724.27	46.6	469.35	17.2
326.26	U-235	703800000 y	(S)	185.71	48.7	194.93	12.2
326.55	Nd-149	1.73 h	4.66	211.29	27.2	114.31	18.7
327.02	Pa-231	32800 y	0.031	299.93	2.37	302.52	1.7
327.61	Ac-228	6.1 h	0.796	911	25	968.79	15
327.69	Hf-177m	1.08 s	22.9	208.36	73.4	228.47	49.2
328.00	Bi-212	1.009 h	0.137	727.29	6.7	1620.59	1.52
328.00	Ac-228	* 6.1 h	3.33	911	25	968.79	15
328.15	Tl-207	4.77 m	0.00143	897.79	0.237	569.64	0.00102
328.36	Cd-115	2.228 d	0.00329	527.91	27.5	492.36	8.02
328.46	Ir-194	* 19.15 h	13	293.55	2.52	645.16	1.15
328.76	La-140	1.678 d	20.6	1596.54	95.3	487.02	45.9
329.42	Eu-152	13.33 y	0.122	121.78	28.3	344.29	26
329.42	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
329.70	Pm-151	1.1833 d	0.233	340.05	22.4	167.72	7.83
329.87	Pa-231	32800 y	1.32	299.93	2.37	302.52	1.7
330.49	Zr-97	16.9 h	0.111	507.7	5.05	1147.94	2.64
330.80	Ru-105	4.44 h	0.658	724.27	46.6	469.35	17.2
330.83	Te-131m	1.25 d	0.0293	773.68	37.7	852.24	19.2
331.26	As-77	1.6179 d	0.000159	238.97	1.59	520.61	0.469
331.81	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
332.04	Sn-125	* 9.64 d	1.34	1067.03	9.03	1089.17	4.28
332.04	Sn-125m	9.52 m	96.9	1403.68	0.699	589.78	0.204
332.27	Hf-180m	* 5.519 h	100	215.25	100	443.14	79.1
332.39	Ac-228	6.1 h	0.425	911	25	968.79	15
332.65	Nd-151	12.44 m	0.58	116.71	46.7	255.58	16.7
333.69	Mo-101	14.6 m	0.775	191.94	18.7	590.93	16.3
333.90	Ra-223	11.43 d	(S)	269.39	13.6	154.19	5.58
334.27	Te-131m	* 1.25 d	9.43	773.68	37.7	852.24	19.2
334.31	Np-239	2.355 d	2.04	277.6	14.1	228.18	10.7
334.60	Se-75	119.77 d	(S)	264.66	59.1	136	59
335.00	Fe-59	44.496 d	0.27	1099.25	56.5	1291.6	43.2
335.50	Te-131m	1.25 d	0.131	773.68	37.7	852.24	19.2
335.79	Sb-124	60.2 d	0.0784	602.73	97.7	1690.97	47

336.26	In-115m	*	4.486 h	45.8	497.36	0.047			
336.69	Ga-72		14.1 h	0.107	834.09	95.6	2201.7	25.8	
337.33	Tb-160		72.3 d	0.324	879.36	29.8	298.58	26.8	
337.53	Ge-77		11.3 h	0.218	264.42	50.9	211.01	29.1	
338.08	Gd-161		3.7 m	1.6	360.94	60.5	314.92	22.9	
338.14	Ge-75		1.3797 h	0.00451	264.66	11.2	198.6	1.31	
338.30	Ra-223		11.43 d	2.77	269.39	13.6	154.19	5.58	
338.31	Ac-228	*	6.1 h	12.3	911	25	968.79	15	Th daughter
338.38	Pt-191		2.9 d	(S)	538.91	13.7	409.48	8	
338.50	Ge-77		11.3 h	0.633	264.42	50.9	211.01	29.1	
340.05	Pm-151		1.1833 d	22.4	167.72	7.83	275.18	6.61	
340.46	Eu-152		13.33 y	0.0275	121.78	28.3	344.29	26	
340.59	Pa-233		27 d	4.16	94.67	10.2	98.44	16	
340.65	Pa-231		32800 y	0.174	299.93	2.37	302.52	1.7	
341.30	Ac-228		6.1 h	0.327	911	25	968.79	15	
341.69	Hf-177m		1.08 s	2.04	208.36	73.4	228.47	49.2	
342.08	Ag-111	*	7.45 d	6.73	245.38	1.23	96.7	0.196	
342.59	Te-129		1.16 h	0.0492	459.52	7.69	487.31	1.42	
342.88	Te-129		1.16 h	0.00847	459.52	7.69	487.31	1.42	
342.95	Te-131		25 m	0.579	149.72	68.3	452.33	18.1	
343.00	Te-131m		1.25 d	0.385	773.68	37.7	852.24	19.2	
343.20	I-132		2.284 h	0.0986	667.73	98.6	772.68	76.2	
343.37	Pt-191		2.9 d	0.0128	538.91	13.7	409.48	8	
343.40	Hf-175	*	70 d	86.9	432.75	1.57	229.59	0.774	
343.67	Ba-141	*	18.27 m	14.1	190.31	45.9	304.18	25.2	
344.12	Th-233		22.3 m	(S)	108.4	0.301	459.32	1.39	
344.29	Eu-152		13.33 y	26	121.78	28.3	1408	20.8	
344.29	Eu-152m1		9.32 h	2.43	841.58	14.5	963.36	11.9	
344.46	Cd-117		2.49 h	17.9	273.35	27.9	1303.26	18.4	
344.87	Pm-151		1.1833 d	2.1	340.05	22.4	167.72	7.83	
345.72	Ta-182		115 d	(S)	1121.3	34.7	1221.41	27.2	
345.83	Hf-181	*	42.39 d	15	482	80.6	132.94	35.8	
345.86	U-235		703800000 y	0.137	185.71	48.7	194.93	12.2	
346.60	Na-24		14.9 h	(E)	1368.6	100	2753.99	99.9	
346.75	Eu-154		8.8 y	0.0302	123.1	40.4	1274.54	35.4	
346.81	Pt-197m	*	1.573 h	11.1	399.91	(S)			
347.18	Nd-151		12.44 m	0.428	116.71	46.7	255.58	16.7	
347.52	Th-233		22.3 m	0.0119	108.4	0.301	459.32	1.39	
348.13	Gd-159		18.56 h	0.216	363.5	11	226.02	0.21	
349.22	Nd-149		1.73 h	1.47	211.29	27.2	114.31	18.7	
350.05	Ge-77		11.3 h	0.0158	264.42	50.9	211.01	29.1	
350.08	Ru-105		4.44 h	0.285	724.27	46.6	469.35	17.2	
350.66	Ce-143		1.375 d	3.35	293.28	42	664.58	5.25	
350.79	Mg-28		20.9 h	(E)	1342.15	54.1	941.56	36.2	
351.00	Bi-211	*	2.14 m	12.8					
351.15	Ba-131		11.5 d	0.118	496.26	43.7	123.78	29.1	
351.20	Pt-191		2.9 d	3.35	538.91	13.7	409.48	8	
351.35	Te-131m		1.25 d	0.208	773.68	37.7	852.24	19.2	
351.67	Te-131		25 m	0.0227	149.72	68.3	452.33	18.1	
351.72	I-132		2.284 h	0.079	667.73	98.6	772.68	76.2	
351.83	Ta-182		115 d	(E)	1121.3	34.7	1221.41	27.2	
351.92	Pb-214	*	27 m	37	295.2	19.1	241.98	7.45	Ra daughter
352.92	Ac-228		6.1 h	(S)	911	25	968.79	15	
353.02	Ge-75		1.3797 h	0.0202	264.66	11.2	198.6	1.31	
353.12	Th-233		22.3 m	(S)	108.4	0.301	459.32	1.39	
353.13	Pt-191		2.9 d	(S)	538.91	13.7	409.48	8	
353.48	Os-193		1.271 d	(S)	138.91	4.26	460.5	3.95	
353.67	Te-131		25 m	0.0187	149.72	68.3	452.33	18.1	
354.37	Pa-231		32800 y	0.0801	299.93	2.37	302.52	1.7	
355.05	Te-131m		1.25 d	0.225	773.68	37.7	852.24	19.2	
355.40	In-116m		54.15 m	0.819	1293.59	85.1	1097.29	56.2	
355.47	Zr-97		16.9 h	2.27	507.7	5.05	1147.94	2.64	
355.70	Bi-214		19.9 m	(E)	609.29	44.9	1764.5	15.8	

356.00	Ba-133	*	10.54 y	62.1	302.85	18.4	383.84	8.91
356.06	U-235		703800000 y	0.045	185.71	48.7	194.93	12.2
356.55	Ta-182m		15.84 m	0.277	171.59	46.5	146.79	37.2
356.71	Se-83	*	22.5 m	68.6	510.04	44.2	225.24	31.8
356.99	Nd-151		12.44 m	(E)	116.71	46.7	255.58	16.7
357.00	Nd-151		12.44 m	0.41	116.71	46.7	255.58	16.7
357.00	Ac-228		6.1 h	0.0559	911	25	968.79	15
357.06	Pa-231		32800 y	0.154	299.93	2.37	302.52	1.7
357.12	Eu-152		13.33 y	0.00479	121.78	28.3	344.29	26
357.32	Ho-166		1.117 d	(E)	1379.32	0.93	1581.88	0.181
357.54	Te-131m		1.25 d	0.019	773.68	37.7	852.24	19.2
357.72	Os-193		1.271 d	0.00988	138.91	4.26	460.5	3.95
357.82	Pd-111m		5.5 h	0.42	391.18	5.37	632.5	3.56
358.00	Rh-104		42.3 s	0.016	555.83	1.99	1237.05	0.0657
358.69	As-77		1.6179 d	(S)	238.97	1.59	520.61	0.469
359.90	Th-233		22.3 m	0.119	108.4	0.301	459.32	1.39
359.93	Pt-191	*	2.9 d	6	538.91	13.7	409.48	8
360.94	Gd-161	*	3.7 m	60.5	314.92	22.9	102.31	13.9
361.31	Th-233		22.3 m	0.0379	108.4	0.301	459.32	1.39
361.67	Dy-165	*	2.334 h	0.841	94.7	3.58	633.42	0.567
361.67	Dy-165m		1.258 m	0.544	515.47	1.56	153.8	0.245
361.85	Os-193		1.271 d	0.295	138.91	4.26	460.5	3.95
362.12	Te-131m		1.25 d	0.0733	773.68	37.7	852.24	19.2
362.26	Kr-88		2.84 h	2.25	196.34	26	834.86	13
362.78	Ir-192		73.831 d	(S)	316.51	83.1	468.07	47.6
363.50	I-132		2.284 h	0.45	667.73	98.6	772.68	76.2
363.50	Gd-159	*	18.56 h	11	348.13	0.216	226.02	0.21
363.91	Cd-115		2.228 d	0.00609	527.91	27.5	492.36	8.02
364.18	Ta-182		115 d	(S)	1121.3	34.7	1221.41	27.2
364.48	I-131	*	8.04 d	80.8	636.97	7.5	284.3	6.03
365.06	Te-131m		1.25 d	1.05	773.68	37.7	852.24	19.2
365.07	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
366.38	Ni-65		2.52 h	4.61	1481.9	23.5	1115.52	14.7
366.42	Mo-99		2.7477 d	1.15	739.5	12	181.07	6.07
366.47	Eu-152		13.33 y	(S)	121.78	28.3	344.29	26
366.48	Nd-147		10.98 d	(S)	91.1	27.9	531.01	13.1
366.63	Nd-149		1.73 h	0.662	211.29	27.2	114.31	18.7
366.69	Pt-191		2.9 d	(S)	538.91	13.7	409.48	8
366.93	Cd-117m		3.36 h	6.24	1065.98	30	1997.31	26.2
367.37	Ge-77		11.3 h	13.3	264.42	50.9	211.01	29.1
367.43	Lu-177m		160.9 d	2.89	413.66	17.1	319.03	10.1
367.80	Eu-152		13.33 y	0.858	121.78	28.3	344.29	26
368.09	Th-233		22.3 m	0.0047	108.4	0.301	459.32	1.39
368.21	U-235		703800000 y	(S)	185.71	48.7	194.93	12.2
368.92	Ba-131		11.5 d	0.0299	496.26	43.7	123.78	29.1
370.78	Eu-154		8.8 y	(S)	123.1	40.4	1274.54	35.4
370.86	Yb-169		32.022 d	0.00663	197.96	34.9	177.22	21.4
370.97	Eu-154		8.8 y	(S)	123.1	40.4	1274.54	35.4
371.07	Eu-154		8.8 y	(S)	123.1	40.4	1274.54	35.4
371.30	Ce-143		1.375 d	0.021	293.28	42	664.58	5.25
371.70	Ra-223		11.43 d	0.49	269.39	13.6	154.19	5.58
371.98	Er-171		7.52 h	0.256	308.33	64.4	295.67	28.9
373.01	La-140		1.678 d	(S)	1596.54	95.3	487.02	45.9
373.19	Ba-131		11.5 d	13.3	496.26	43.7	123.78	29.1
374.10	Hg-199m	*	42.6 m	13.8	158.38	52.5		
374.52	Ir-192		73.831 d	0.708	316.51	83.1	468.07	47.6
374.70	Pb-204m		1.12 h	89	899.2	99	911.6	94
375.52	Pa-233		27 d	0.575	94.67	10.2	98.44	16
375.80	Te-131m		1.25 d	0.0112	773.68	37.7	852.24	19.2
376.61	Pd-111	*	23.4 m	0.444	579.97	0.836	1458.85	0.561
376.61	Pd-111m		5.5 h	0.877	391.18	5.37	632.5	3.56
377.22	Th-233		22.3 m	0.0379	108.4	0.301	459.32	1.39
377.29	Os-193		1.271 d	0.0711	138.91	4.26	460.5	3.95

378.11	Ac-228	6.1 h	0.0808	911	25	968.79	15	
378.50	Hf-177m	1.08 s	37.9	208.36	73.4	228.47	49.2	
378.61	Tc-100	15.8 s	0.0287	539.59	7	590.81	5.7	
379.81	Pm-151	1.1833 d	0.941	340.05	22.4	167.72	7.83	
380.42	Sb-125	2.73 y	1.52	427.88	29.3	600.5	17.8	
381.54	Ga-72	14.1 h	0.268	834.09	95.6	2201.7	25.8	
382.89	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
383.50	Ac-228	6.1 h	(S)	911	25	968.79	15	
383.73	Np-239	2.355 d	(S)	277.6	14.1	228.18	10.7	
383.80	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
383.81	Te-131m	1.25 d	0.199	773.68	37.7	852.24	19.2	
383.84	Ba-133	10.54 y	8.91	356	62.1	302.85	18.4	
384.00	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
384.06	Te-131	25 m	0.869	149.72	68.3	452.33	18.1	
384.66	Nd-149	1.73 h	0.335	211.29	27.2	114.31	18.7	
385.04	Hf-177m	1.08 s	3.75	208.36	73.4	228.47	49.2	
385.37	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
385.68	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
386.00	Eu-152	13.33 y	(E)	121.78	28.3	344.29	26	
386.00	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
386.34	Sn-125m	9.52 m	0.0951	332.04	96.9	1403.68	0.699	
386.38	Zn-71m	*	3.94 h	93	487.36	62.3	620.29	56.6
386.80	Bi-214	19.9 m	0.354	609.29	44.9	1764.5	15.8	
387.35	Pa-233	27 d	(S)	94.67	10.2	98.44	16	
387.47	Os-193	*	1.271 d	1.26	138.91	4.26	460.5	3.95
387.81	U-235	703800000 y	0.137	185.71	48.7	194.93	12.2	
387.83	I-132	2.284 h	0.167	667.73	98.6	772.68	76.2	
388.40	Sr-87m	*	2.795 h	82.1				
388.47	I-126	*	12.8 d	35.4	666.37	33.1		
388.95	Bi-214	19.9 m	0.429	609.29	44.9	1764.5	15.8	
389.49	Ce-143	1.375 d	0.0293	293.28	42	664.58	5.25	
390.03	Zn-71	2.45 m	3.83	511.65	30.2	910.35	7.83	
390.03	Zn-71m	3.94 h	2.6	386.38	93	487.36	62.3	
390.52	Pd-109	13.7 h	0.000926	311.37	0.032	647.25	0.0243	
390.63	U-235	703800000 y	(S)	185.71	48.7	194.93	12.2	
391.18	Pd-111	23.4 m	0.026	579.97	0.836	1458.85	0.561	
391.18	Pd-111m	*	5.5 h	5.37	632.5	3.56	574.98	3.18
391.69	In-113m	*	1.658 h	64.1				Sn-113 daughter
392.50	Tb-160	72.3 d	1.33	879.36	29.8	298.58	26.8	
393.36	Tc-101	14.2 m	0.0967	306.83	88	545.05	5.99	
393.40	Ru-105	4.44 h	3.72	724.27	46.6	469.35	17.2	
396.33	Yb-175	*	4.19 d	6.5	282.52	3.06	113.81	1.9
396.56	Xe-138	14.08 m	6.29	258.45	31.4	1768.38	16.6	
396.66	Pt-191	2.9 d	0.0104	538.91	13.7	409.48	8	
397.15	Eu-154	8.8 y	0.0302	123.1	40.4	1274.54	35.4	
397.47	Hf-175	70 d	(S)	343.4	86.9	432.75	1.57	
397.66	La-140	1.678 d	0.105	1596.54	95.3	487.02	45.9	
398.10	Ac-228	6.1 h	0.044	911	25	968.79	15	
398.12	V-52	3.75 m	0.00996	1434.08	100	1333.65	0.587	
398.16	Nd-147	10.98 d	0.871	91.1	27.9	531.01	13.1	
398.66	Pa-233	27 d	1.18	94.67	10.2	98.44	16	
398.70	Zn-71	2.45 m	0.608	511.65	30.2	910.35	7.83	
398.99	Ge-77	11.3 h	0.0914	264.42	50.9	211.01	29.1	
398.99	Ge-77m	52.9 s	0.00759	215.48	20.8	194.75	0.482	
398.99	Mo-101	14.6 m	0.9	191.94	18.7	590.93	16.3	
399.32	Th-233	22.3 m	0.0139	108.4	0.301	459.32	1.39	
399.91	Pt-197m	1.573 h	(S)	346.81	11.1			
400.59	Mg-28	20.9 h	36	1342.15	54.1	941.56	36.2	
400.66	Se-75	119.77 d	11.5	264.66	59.1	136	59	
401.10	Br-82	1.4708 d	0.0908	776.5	83.2	554.3	70.4	
401.31	Eu-154	8.8 y	0.208	123.1	40.4	1274.54	35.4	
401.31	Pb-203	2.169 d	3.43	279.19	80.8	680.5	0.72	
401.46	Xe-138	14.08 m	2.16	258.45	31.4	1768.38	16.6	

401.80	Rn-219	*	3.96 s	6.61	271.19	10.2	130.61	0.127
402.28	Nd-151		12.44 m	1.95	116.71	46.7	255.58	16.7
402.64	Kr-87	*	1.272 h	49.5				
403.20	As-76		1.097 d	0.023	559.1	45		
403.28	Hf-181		42.39 d	(S)	482	80.6	132.94	35.8
403.54	Eu-154		8.8 y	0.027	123.1	40.4	1274.54	35.4
403.73	Te-131m		1.25 d	0.0208	773.68	37.7	852.24	19.2
403.99	Ba-131		11.5 d	1.29	496.26	43.7	123.78	29.1
404.49	Pt-191		2.9 d	0.0112	538.91	13.7	409.48	8
404.71	Pd-111		23.4 m	0.0836	579.97	0.836	1458.85	0.561
404.80	Pb-211	*	36.1 m	3.98	831.79	3.5	426.99	1.75
405.18	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2
405.46	I-134		52.6 m	7.34	847.06	95.3	884.13	64.9
406.93	Pm-151		1.1833 d	0.187	340.05	22.4	167.72	7.83
407.61	Nd-151		12.44 m	0.458	116.71	46.7	255.58	16.7
408.00	Sb-125		2.73 y	0.183	427.88	29.3	600.5	17.8
408.76	Mo-101		14.6 m	1.6	191.94	18.7	590.93	16.3
408.88	Pt-191		2.9 d	0.0959	538.91	13.7	409.48	8
408.95	Cs-138		32.2 m	4.66	1435.8	76.2	462.78	30.8
409.48	Pt-191	*	2.9 d	8	538.91	13.7	359.93	6
409.81	Ac-228		6.1 h	1.46	911	25	968.79	15
410.23	U-235		703800000 y	0.027	185.71	48.7	194.93	12.2
410.52	Nd-147		10.98 d	0.139	91.1	27.9	531.01	13.1
410.73	Pm-151		1.1833 d	0.0626	340.05	22.4	167.72	7.83
411.02	Pt-199		30.8 m	(S)	542.96	14.7	493.74	5.73
411.12	Eu-152		13.33 y	2.22	121.78	28.3	344.29	26
411.18	Hf-181		42.39 d	(S)	482	80.6	132.94	35.8
411.41	Pt-191		2.9 d	0.00959	538.91	13.7	409.48	8
411.50	Mo-99		2.7477 d	0.0145	739.5	12	181.07	6.07
411.80	Au-198	*	2.6935 d	95.5	675.89	0.802	1087.69	0.159
412.08	V-52		3.75 m	(E)	1434.08	100	1333.65	0.587
412.60	Th-233		22.3 m	0.013	108.4	0.301	459.32	1.39
412.67	Tb-160		72.3 d	(S)	879.36	29.8	298.58	26.8
412.97	Pd-109		13.7 h	0.00658	311.37	0.032	647.25	0.0243
413.48	Ru-105		4.44 h	2.22	724.27	46.6	469.35	17.2
413.66	Lu-177m		160.9 d	17.1	319.03	10.1	121.62	6.04
413.68	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
413.71	Pu-239		24110 y	0.00147	129.297	0.00631		
414.60	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2
415.21	Pd-109		13.7 h	0.0107	311.37	0.032	647.25	0.0243
415.30	Pb-212		10.64 h	0.025	238.59	42.9	300.13	3.33
415.41	Pd-111		23.4 m	0.0843	579.97	0.836	1458.85	0.561
415.93	Pa-233		27 d	1.5	94.67	10.2	98.44	16
416.05	Eu-152		13.33 y	0.0974	121.78	28.3	344.29	26
416.31	Ge-77	*	11.3 h	20.6	264.42	50.9	211.01	29.1
416.47	Ir-192		73.831 d	0.666	316.51	83.1	468.07	47.6
416.81	I-132		2.284 h	0.463	667.73	98.6	772.68	76.2
416.92	In-116m	*	54.15 m	30	1293.59	85.1	1097.29	56.2
417.59	Pt-199		30.8 m	0.391	542.96	14.7	493.74	5.73
417.66	I-135		6.55 h	3.52	1260.42	28.5	1131.52	22.5
417.71	Eu-152		13.33 y	(S)	121.78	28.3	344.29	26
418.00	I-130		12.5 h	32.6	536.1			
418.40	Th-233		22.3 m	(S)	108.4	0.301	459.32	1.39
418.53	Hf-177m		1.08 s	25.4	208.36	73.4	228.47	49.2
419.08	Ge-75		1.3797 h	0.184	264.66	11.2	198.6	1.31
419.50	Ac-228		6.1 h	0.0235	911	25	968.79	15
419.72	Ge-77		11.3 h	1.16	264.42	50.9	211.01	29.1
419.72	Ge-77m		52.9 s	0.0974	215.48	20.8	194.75	0.482
419.72	Er-171		7.52 h	0.083	308.33	64.4	295.67	28.9
420.32	Os-193		1.271 d	0.165	138.91	4.26	460.5	3.95
421.37	Te-131		25 m	0.042	149.72	68.3	452.33	18.1
421.60	Mo-101		14.6 m	0.563	191.94	18.7	590.93	16.3
422.89	Pt-191		2.9 d	(S)	538.91	13.7	409.48	8

422.90	I-133	20.8 h	0.308	529.85	86.3	875.31	4.46	
423.19	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
423.53	Nd-149	1.73 h	9.44	211.29	27.2	114.31	18.7	
423.56	Nd-151	*	12.44 m	7.33	116.71	46.7	255.58	16.7
423.72	Ba-140	12.746 d	3.12	537.31	24.3	162.7	6.2	
423.91	Pd-109	13.7 h	0.000951	311.37	0.032	647.25	0.0243	
424.11	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
424.19	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
424.43	Sm-153	1.946 d	0.00229	103.18	28.3	97.43	0.729	
425.02	Er-171	7.52 h	0.0224	308.33	64.4	295.67	28.9	
425.33	Pt-199	30.8 m	0.175	542.96	14.7	493.74	5.73	
426.99	Pb-211	*	36.1 m	1.75	404.8	3.98	831.79	3.5
427.54	Ba-131	11.5 d	0.0994	496.26	43.7	123.78	29.1	
427.88	Sb-125	*	2.73 y	29.3	600.5	17.8	635.89	11.2
428.01	Ac-228	6.1 h	(S)	911	25	968.79	15	
428.29	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
430.53	Ge-77	11.3 h	0.00968	264.42	50.9	211.01	29.1	
430.66	Sr-92	2.71 h	3.33	1384.06	90	953.4	3.6	
430.75	Th-233	22.3 m	0.0229	108.4	0.301	459.32	1.39	
431.23	Mg-28	20.9 h	(S)	1342.15	54.1	941.56	36.2	
431.92	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
431.94	I-132	2.284 h	0.454	667.73	98.6	772.68	76.2	
432.40	Ra-223	11.43 d	(S)	269.39	13.6	154.19	5.58	
432.46	Te-131m	1.25 d	0.654	773.68	37.7	852.24	19.2	
432.53	La-140	1.678 d	2.99	1596.54	95.3	487.02	45.9	
432.58	U-235	703800000 y	(S)	185.71	48.7	194.93	12.2	
432.75	Hf-175	70 d	1.57	343.4	86.9	229.59	0.774	
432.78	Tb-160	72.3 d	0.0166	879.36	29.8	298.58	26.8	
433.00	Ce-143	1.375 d	0.134	293.28	42	664.58	5.25	
433.01	Ac-228	6.1 h	(S)	911	25	968.79	15	
433.23	Th-233	22.3 m	0.015	108.4	0.301	459.32	1.39	
433.37	I-134	52.6 m	4.2	847.06	95.3	884.13	64.9	
433.54	Bi-212	1.009 h	0.0103	727.29	6.7	1620.59	1.52	
433.94	Ag-108	*	2.37 m	0.499	632.99	1.75	618.77	0.26
434.19	Cd-117	2.49 h	9.78	273.35	27.9	1303.26	18.4	
434.99	Te-134	*	41.8 m	18.6	767.21	28	210.45	22.2
436.99	Ba-133	10.54 y	(S)	356	62.1	302.85	18.4	
437.58	Ba-140	12.746 d	1.92	537.31	24.3	162.7	6.2	
438.14	Pt-199	30.8 m	(S)	542.96	14.7	493.74	5.73	
438.16	La-140	1.678 d	0.02	1596.54	95.3	487.02	45.9	
438.45	Pd-111	23.4 m	0.0486	579.97	0.836	1458.85	0.561	
438.63	Zn-69m	*	13.76 h	94.7				
438.69	Po-215	*	1.78 ms	0.0339				
439.24	Pt-191	2.9 d	0.592	538.91	13.7	409.48	8	
439.43	As-77	1.6179 d	0.000857	238.97	1.59	520.61	0.469	
439.57	Ge-77	11.3 h	0.19	264.42	50.9	211.01	29.1	
439.85	Ne-23	*	37.24 s	32.9				
439.91	Nd-147	10.98 d	1.19	91.1	27.9	531.01	13.1	
440.80	Ac-228	6.1 h	0.368	911	25	968.79	15	
440.81	Pm-151	1.1833 d	1.5	340.05	22.4	167.72	7.83	
440.98	Os-193	1.271 d	0.0916	138.91	4.26	460.5	3.95	
441.17	Th-233	22.3 m	0.229	108.4	0.301	459.32	1.39	
442.24	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
442.36	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8	
442.40	Ra-223	11.43 d	(S)	269.39	13.6	154.19	5.58	
442.92	I-128	*	24.99 m	16.8	526.57	1.57	969.49	0.407
443.14	Hf-180m	*	5.519 h	79.1	215.25	100	332.27	100
443.41	Ac-228	6.1 h	(S)	911	25	968.79	15	
443.52	Nd-149	1.73 h	1.5	211.29	27.2	114.31	18.7	
443.77	Ru-103	39.254 d	0.325	497.05	88.6	610.3	5.63	
443.89	Eu-152	13.33 y	2.79	121.78	28.3	344.29	26	
443.98	Eu-152	13.33 y	0.285	121.78	28.3	344.29	26	
444.00	Sb-124	60.2 d	0.192	602.73	97.7	1690.97	47	

444.49	Ge-77	11.3 h	0.0162	264.42	50.9	211.01	29.1
444.51	Eu-154	8.8 y	0.507	123.1	40.4	1274.54	35.4
444.51	Ac-228	6.1 h	(S)	911	25	968.79	15
444.80	Te-133m	55.4 m	2.8	912.58	62.9	647.4	21.4
444.80	La-140	1.678 d	0.0239	1596.54	95.3	487.02	45.9
445.10	Ra-223	11.43 d	1.27	269.39	13.6	154.19	5.58
445.15	Pt-191	2.9 d	0.0544	538.91	13.7	409.48	8
445.28	I-132	2.284 h	0.67	667.73	98.6	772.68	76.2
445.63	Pm-151	1.1833 d	4	340.05	22.4	167.72	7.83
446.80	Ra-223	11.43 d	(S)	269.39	13.6	154.19	5.58
446.81	Ag-110m	249.76 d	3.75	657.76	94.6	884.68	72.6
446.87	Ce-143	1.375 d	(S)	293.28	42	664.58	5.25
447.23	Ce-137	*	9 h	2.24			
447.41	Ce-143	1.375 d	0.0671	293.28	42	664.58	5.25
447.53	Pd-109	13.7 h	0.00083	311.37	0.032	647.25	0.0243
447.84	Th-233	22.3 m	0.15	108.4	0.301	459.32	1.39
447.95	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
448.52	Y-92	3.54 h	2.33	934.53	13.8	1405.4	4.78
448.70	Mo-101	14.6 m	0.69	191.94	18.7	590.93	16.3
449.83	Ga-72	14.1 h	0.0936	834.09	95.6	2201.7	25.8
451.16	Rh-104	42.3 s	0.00616	555.83	1.99	1237.05	0.0657
451.29	Pm-151	1.1833 d	0.279	340.05	22.4	167.72	7.83
451.39	Ba-131	11.5 d	0.0417	496.26	43.7	123.78	29.1
451.40	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
452.13	Rh-104	42.3 s	0.00576	555.83	1.99	1237.05	0.0657
452.18	U-235	703800000 y	(S)	185.71	48.7	194.93	12.2
452.33	Te-131	25 m	18.1	149.72	68.3	1146.96	4.84
452.33	Te-131m	1.25 d	1.17	773.68	37.7	852.24	19.2
452.75	Bi-212	1.009 h	0.362	727.29	6.7	1620.59	1.52
452.85	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6
453.25	Zn-71	2.45 m	0.188	511.65	30.2	910.35	7.83
453.25	Zn-71m	3.94 h	1.08	386.38	93	487.36	62.3
453.34	Re-188	16.98 h	0.0704	155.06	14.9	633.08	1.25
453.89	Pr-146	24.15 m	47.9	1524.78	15.6	735.81	7.44
454.24	Pd-109	13.7 h	0.000537	311.37	0.032	647.25	0.0243
454.43	Pd-111m	5.5 h	1.12	391.18	5.37	632.5	3.56
454.62	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
454.84	Bi-214	19.9 m	0.335	609.29	44.9	1764.5	15.8
454.89	W-187	23.9 h	0.0283	685.74	26.4	479.53	21
454.90	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
455.97	Pm-151	1.1833 d	0.0374	340.05	22.4	167.72	7.83
456.08	Dy-165	2.334 h	0.0425	94.7	3.58	361.67	0.841
456.90	As-76	1.097 d	0.036	559.1	45		
456.48	Pt-191	2.9 d	3.35	538.91	13.7	409.48	8
458.57	Pt-191	2.9 d	0.0432	538.91	13.7	409.48	8
459.11	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
459.31	Rh-104	42.3 s	0.00358	555.83	1.99	1237.05	0.0657
459.32	Th-233	22.3 m	1.39	108.4	0.301	459.32	1.39
459.52	Te-129	*	1.16 h	7.69	487.31	1.42	278.37
459.52	Te-129m	33.6 d	0.00121	695.84	2.99	729.53	0.696
460.28	Rh-104	42.3 s	0.00159	555.83	1.99	1237.05	0.0657
460.50	Os-193	*	1.271 d	3.95	138.91	4.26	557.34
460.66	Nd-151	12.44 m	1.1	116.71	46.7	255.58	16.7
460.99	Te-134	41.8 m	9.9	767.21	28	210.45	22.2
461.19	Ba-131	11.5 d	0.0596	496.26	43.7	123.78	29.1
461.34	Ge-77	11.3 h	1.19	264.42	50.9	211.01	29.1
461.50	Ac-228	6.1 h	(S)	911	25	968.79	15
462.61	Ba-131	11.5 d	0.0398	496.26	43.7	123.78	29.1
462.78	Cs-138	32.2 m	30.8	1435.8	76.2	1009.77	29.8
462.93	Te-131m	1.25 d	1.72	773.68	37.7	852.24	19.2
463.05	Cd-117	2.49 h	0.753	273.35	27.9	1303.26	18.4
463.32	In-116m	54.15 m	0.826	1293.59	85.1	1097.29	56.2
463.37	Sb-125	2.73 y	10.5	427.88	29.3	600.5	17.8

463.41	Ac-228	*	6.1 h	3.33	911	25	968.79	15	Th daughter
463.64	Sm-153		1.946 d	0.0156	103.18	28.3	97.43	0.729	
464.58	Te-134		41.8 m	4.6	767.21	28	210.45	22.2	
465.78	Pt-199		30.8 m	0.932	542.96	14.7	493.74	5.73	
465.83	Hf-177m		1.08 s	2.6	208.36	73.4	228.47	49.2	
467.22	Ba-141		18.27 m	5.46	190.31	45.9	304.18	25.2	
467.51	Th-233		22.3 m	0.018	108.4	0.301	459.32	1.39	
467.57	Ba-140		12.746 d	0.145	537.31	24.3	162.7	6.2	
467.70	Eu-154		8.8 y	(E)	123.1	40.4	1274.54	35.4	
468.07	Eu-154		8.8 y	0.0567	123.1	40.4	1274.54	35.4	
468.07	Ir-192	*	73.831 d	47.6	316.51	83.1	308.45	29.3	
468.10	Pt-199		30.8 m	0.991	542.96	14.7	493.74	5.73	
468.22	Te-131m		1.25 d	0.306	773.68	37.7	852.24	19.2	
468.77	Ge-75		1.3797 h	0.222	264.66	11.2	198.6	1.31	
469.35	Ru-105	*	4.44 h	17.2	724.27	46.6	676.33	15.5	
469.74	Bi-214		19.9 m	0.133	609.29	44.9	1764.5	15.8	
469.77	Sn-125		9.64 d	1.37	1067.03	9.03	1089.17	4.28	
469.94	Ge-77		11.3 h	0.00765	264.42	50.9	211.01	29.1	
470.41	Ac-228		6.1 h	(S)	911	25	968.79	15	
470.46	Te-121		16.8 d	1.4	573.13	80.2	507.59	17.7	
472.86	As-76		1.097 d	0.0501	559.08	45	657.06	6.16	
473.13	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1	
473.33	I-132		2.284 h	(E)	667.73	98.6	772.68	76.2	
473.39	Bi-212		1.009 h	0.0362	727.29	6.7	1620.59	1.52	
473.75	I-132		2.284 h	0.266	667.73	98.6	772.68	76.2	
474.00	Pt-191		2.9 d	(S)	538.91	13.7	409.48	8	
474.49	Bi-214		19.9 m	0.114	609.29	44.9	1764.5	15.8	
474.67	Pt-199		30.8 m	1.14	542.96	14.7	493.74	5.73	
475.36	Cs-134		2.062 y	1.46	604.71	97.5	795.87	85.3	
475.43	Ge-77		11.3 h	0.936	264.42	50.9	211.01	29.1	
475.87	Hf-181		42.39 d	0.612	482	80.6	132.94	35.8	
475.90	Ac-228		6.1 h	(S)	911	25	968.79	15	
476.62	Pd-111		23.4 m	0.0578	579.97	0.836	1458.85	0.561	
477.61	Be-7	*	53.3 d	10.4					cosmic
478.02	Re-188		16.98 h	1.04	155.06	14.9	633.08	1.25	
478.29	Eu-154		8.8 y	0.216	123.1	40.4	1274.54	35.4	
478.50	Ac-228		6.1 h	0.523	911	25	968.79	15	
478.52	I-132		2.284 h	0.0986	667.73	98.6	772.68	76.2	
478.77	Hf-181		42.39 d	(S)	482	80.6	132.94	35.8	
479.34	Rh-104		42.3 s	0.0028	555.83	1.99	1237.05	0.0657	
479.49	Y-90m	*	3.19 h	90.7	202.47	96.6			
479.53	W-187	*	23.9 h	21	685.74	26.4	134.23	8.56	
479.62	Dy-165		2.334 h	0.044	94.7	3.58	361.67	0.841	
479.95	Pt-191		2.9 d	0.0433	538.91	13.7	409.48	8	
480.13	Gd-161		3.7 m	2.7	360.94	60.5	314.92	22.9	
480.38	Ba-131		11.5 d	0.337	496.26	43.7	123.78	29.1	
480.38	La-140		1.678 d	(S)	1596.54	95.3	487.02	45.9	
480.38	Pb-214		27 m	0.289	351.92	37	295.2	19.1	
481.61	Ac-228		6.1 h	(S)	911	25	968.79	15	
482.00	Hf-181	*	42.39 d	80.6	132.94	35.8	345.83	15	
482.20	Ac-228		6.1 h	0.0379	911	25	968.79	15	
483.36	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1	
483.99	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2	
484.31	Os-193		1.271 d	0.16	138.91	4.26	460.5	3.95	
484.65	Ir-192		73.831 d	3.12	316.51	83.1	468.07	47.6	
485.90	Tl-208		5.053 m	0.062	2614.59	98.6	583.1	84.1	
486.04	Tb-160		72.3 d	0.0844	879.36	29.8	298.58	26.8	
486.10	Re-188		16.98 h	0.078	155.06	14.9	633.08	1.25	
486.46	Ba-131		11.5 d	1.88	496.26	43.7	123.78	29.1	
487.02	La-140		1.678 d	45.9	1596.54	95.3	815.78	23.5	
487.18	Pb-214		27 m	0.375	351.92	37	295.2	19.1	
487.26	Bi-214		19.9 m	(E)	609.29	44.9	1764.5	15.8	
487.31	Te-129		1.16 h	1.42	459.52	7.69	278.37	0.566	

487.31	Te-129m	33.6 d	0.000225	695.84	2.99	729.53	0.696	
487.36	Zn-71	2.45 m	0.117	511.65	30.2	910.35	7.83	
487.36	Zn-71m	3.94 h	62.3	386.38	93	620.29	56.6	
487.49	Rh-104	42.3 s	0.00316	555.83	1.99	1237.05	0.0657	
487.87	I-132	2.284 h	0.178	667.73	98.6	772.68	76.2	
488.19	Ac-228	6.1 h	(S)	911	25	968.79	15	
488.61	Eu-152	13.33 y	0.408	121.78	28.3	344.29	26	
488.92	I-134	52.6 m	1.42	847.06	95.3	884.13	64.9	
489.06	Ir-192	73.831 d	0.432	316.51	83.1	468.07	47.6	
489.21	Ca-47	4.536 d	6.74	1297.06	74.9	807.85	6.88	
489.26	Nd-147	10.98 d	0.154	91.1	27.9	531.01	13.1	
489.49	Ru-105	4.44 h	0.541	724.27	46.6	469.35	17.2	
490.38	Ce-143	1.375 d	1.96	293.28	42	664.58	5.25	
490.75	Th-233	22.3 m	0.16	108.4	0.301	459.32	1.39	
491.10	Ac-228	6.1 h	(S)	911	25	968.79	15	
491.26	I-126	12.8 d	2.71	388.47	31.4			
491.89	Te-129	1.16 h	0.00115	459.52	7.69	487.31	1.42	
492.36	Cd-115	2.228 d	8.02	527.91	27.5	260.91	1.93	
492.60	Bi-212	1.009 h	0.0198	727.29	6.7	1620.59	1.52	
492.67	Te-131	25 m	3.97	149.72	68.3	452.33	18.1	
492.67	Te-131m	1.25 d	0.00691	773.68	37.7	852.24	19.2	
493.51	Eu-152	13.33 y	0.0266	121.78	28.3	344.29	26	
493.74	Pt-199	30.8 m	5.73	542.96	14.7	317.06	4.87	
494.04	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
494.70	Pt-191	2.9 d	0.06	538.91	13.7	409.48	8	
494.85	Te-131	25 m	0.0733	149.72	68.3	452.33	18.1	
495.61	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
496.21	Te-131	25 m	0.0343	149.72	68.3	452.33	18.1	
496.26	Ba-131	*	11.5 d	43.7	123.78	29.1	216.05	19.9
497.05	Ru-103	*	39.254 d	88.6	610.3	5.63	557.02	0.832
497.34	Sb-125	2.73 y	0.0036	427.88	29.3	600.5	17.8	
497.36	In-115m	4.486 h	0.047	336.26	45.8			
497.45	Rh-104	42.3 s	0.00256	555.83	1.99	1237.05	0.0657	
498.40	Sb-124m1	1.55 m	24.5	602.73	25	645.86	25	
498.40	Ac-228	6.1 h	0.227	911	25	968.79	15	
498.94	Th-233	22.3 m	0.21	108.4	0.301	459.32	1.39	
499.25	Ru-105	4.44 h	2.02	724.27	46.6	469.35	17.2	
499.68	Mo-101	14.6 m	1.46	191.94	18.7	590.93	16.3	
500.69	Hf-180m	5.519 h	20.8	215.25	100	332.27	100	
502.30	Ac-228	6.1 h	(S)	911	25	968.79	15	
502.58	K-42	12.36 h	(E)	1524.58	18.7	312.35	0.35	
502.99	I-131	8.04 d	0.345	364.48	80.8	636.97	7.5	
503.41	Eu-152	13.33 y	0.152	121.78	28.3	344.29	26	
503.70	Ac-228	6.1 h	0.779	911	25	968.79	15	
503.90	Ge-77	11.3 h	0.0662	264.42	50.9	211.01	29.1	
503.98	Np-239	2.355 d	0.00143	277.6	14.1	228.18	10.7	
505.49	Pt-199	30.8 m	0.0754	542.96	14.7	493.74	5.73	
505.50	Ac-228	6.1 h	(S)	911	25	968.79	15	
505.91	I-132	2.284 h	5.01	667.73	98.6	772.68	76.2	
505.97	Mo-101	*	14.6 m	11.7	191.94	18.7	590.93	16.3
506.59	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
507.59	Te-121	16.8 d	17.7	573.13	80.2	470.46	1.4	
507.70	Zr-97	16.9 h	5.05	1147.94	2.64	355.47	2.27	
507.95	Ni-65	2.52 h	0.287	1481.9	23.5	1115.52	14.7	
508.85	Pd-111	23.4 m	0.208	579.97	0.836	1458.85	0.561	
509.31	Ac-228	6.1 h	0.49	911	25	968.79	15	
509.90	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4	
510.04	Se-83	22.5 m	44.2	356.71	68.6	225.24	31.8	
510.81	Tl-208	*	5.053 m	21.6	2614.59	98.6	583.1	84.1
511.00	Na-22	2.602 y	181	1274.53	99.8	1022	(S)	
511.00	Na-24	14.9 h	(P)	1368.6	100	2753.99	99.9	
511.00	Al-28	2.2406 m	(P)	1778.99	100	756.99	(E)	
511.00	K-40	1.277E+09 y	2.00E-3	460.83	0.7			

511.00	Ca-49	8.716 m	(P)	3084.54	92.1	1409.02	0.625
511.00	Mn-54	312.2 d	0.0479	834.83	100		
511.00	Mn-56	2.5785 h	(P)	846.81	98.9	1810.77	27.2
511.00	Co-58	70.916 d	29.8	810.79	99.4	863.96	0.72
511.00	Fe-59	44.496 d	(P)	1099.25	56.5	1291.6	43.2
511.00	Cu-64	12.701 h	37.9	1345.78	0.483	1022	(S)
511.00	Zn-65	244.1 d	2.91	1115.52	50.8	1022	(S)
511.00	Br-80	17.68 m	5.2	616.87	6.69	665.94	1.08
511.00	Y-88	106.61 d	1.83	1836.08	99.3	898.04	92.6
511.00	Zr-89	* 3.268 d	45.3				
511.00	La-140	1.678 d	(P)	1596.54	95.3	487.02	45.9
511.00	Eu-152	13.33 y	0.052	121.78	28.3	344.29	26
511.65	Zn-71	2.45 m	30.2	910.35	7.83	390.03	3.83
511.65	Zn-71m	3.94 h	28.5	386.38	93	487.36	62.3
511.75	W-187	23.9 h	0.624	685.74	26.4	479.53	21
511.97	Eu-154	8.8 y	0.0327	123.1	40.4	1274.54	35.4
512.00	Rn-222	* 3.825 d	0.07				
512.61	Ac-228	6.1 h	(S)	911	25	968.79	15
512.85	Mo-101	14.6 m	1.75	191.94	18.7	590.93	16.3
513.39	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
513.40	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
514.00	Sr-85	* 64.84 d	99.2				
514.01	Kr-85	10.756 y	0.434				
514.43	I-134	52.6 m	2.2	847.06	95.3	884.13	64.9
514.81	Tc-100	15.8 s	(E)	539.59	7	590.81	5.7
515.04	Os-193	1.271 d	0.0111	138.91	4.26	460.5	3.95
515.47	Dy-165	2.334 h	0.0362	94.7	3.58	361.67	0.841
515.47	Dy-165m	* 1.258 m	1.56	361.67	0.544	153.8	0.245
515.56	Mo-101	14.6 m	0.508	191.94	18.7	590.93	16.3
515.61	Ac-228	6.1 h	0.0479	911	25	968.79	15
516.16	Pm-151	1.1833 d	0.18	340.05	22.4	167.72	7.83
517.76	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
517.96	Os-193	1.271 d	(S)	138.91	4.26	460.5	3.95
518.01	Eu-154	8.8 y	0.0403	123.1	40.4	1274.54	35.4
518.80	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
520.24	Ge-77	11.3 h	0.281	264.42	50.9	211.01	29.1
520.24	Eu-152	13.33 y	0.0537	121.78	28.3	344.29	26
520.61	As-77	* 1.6179 d	0.469	238.97	1.59	249.78	0.409
522.52	Sm-155	22.1 m	0.15	104.35	75	245.79	3.75
522.68	I-132	* 2.284 h	16.1	667.73	98.6	772.68	76.2
523.30	Ac-228	6.1 h	0.0984	911	25	968.79	15
524.32	Nd-151	12.44 m	0.596	116.71	46.7	255.58	16.7
524.86	Ce-143	1.375 d	(S)	293.28	42	664.58	5.25
525.20	Os-193	1.271 d	0.0158	138.91	4.26	460.5	3.95
525.47	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
525.50	Pd-111m	5.5 h	1.3	391.18	5.37	632.5	3.56
526.55	Th-233	22.3 m	0.00629	108.4	0.301	459.32	1.39
526.56	Xe-135m	* 15.65 m	81.2				
526.57	I-128	24.99 m	1.57	442.92	16.8	969.49	0.407
527.58	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8
527.91	Cd-115	* 2.228 d	27.5	492.36	8.02	260.91	1.93
527.95	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
528.81	Mo-99	2.7477 d	0.0542	739.5	12	181.07	6.07
529.48	Gd-161	3.7 m	1.27	360.94	60.5	314.92	22.9
529.85	I-133	* 20.8 h	86.3	875.31	4.46	1298.21	2.33
531.01	Nd-147	* 10.98 d	13.1	91.1	27.9	319.42	1.95
531.44	Sm-153	1.946 d	0.064	103.18	28.3	97.43	0.729
531.45	Tc-101	14.2 m	1.02	306.83	88	545.05	5.99
531.51	Ge-77	11.3 h	0.0438	264.42	50.9	211.01	29.1
531.81	Te-129	1.16 h	0.0877	459.52	7.69	487.31	1.42
532.06	Os-193	1.271 d	0.083	138.91	4.26	460.5	3.95
532.30	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
533.31	Sm-153	1.946 d	0.032	103.18	28.3	97.43	0.729

533.60	Pb-214	27 m	0.145	351.92	37	295.2	19.1	
534.26	Eu-152	13.33 y	0.0429	121.78	28.3	344.29	26	
535.15	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
535.25	I-132	2.284 h	0.523	667.73	98.6	772.68	76.2	
536.09	I-130	*	12.4 h	99	668.54	96.1	739.48	82.3
536.81	Ac-228	6.1 h	(S)	911	25	968.79	15	
537.31	Ba-140	*	12.746 d	24.3	162.7	6.2	304.87	4.29
538.22	Se-81	18.5 m	0.0591	275.99	0.869	290.12	0.765	
538.67	W-187	23.9 h	(S)	685.74	26.4	479.53	21	
538.91	Pt-191	*	2.9 d	13.7	409.48	8	359.93	6
538.92	Ac-228	6.1 h	(S)	911	25	968.79	15	
539.06	Sm-153	1.946 d	0.02	103.18	28.3	97.43	0.729	
539.10	Hf-181	42.39 d	(S)	482	80.6	132.94	35.8	
539.54	Hf-181	42.39 d	(S)	482	80.6	132.94	35.8	
539.59	Tc-100	*	15.8 s	7	590.81	5.7	1536.81	0.429
540.50	Nd-149	*	1.73 h	7.7	211.29	27.2	114.31	18.7
540.87	I-134	52.6 m	7.62	847.06	95.3	884.13	64.9	
540.91	Ac-228	6.1 h	0.013	911	25	968.79	15	
540.97	W-187	23.9 h	(S)	685.74	26.4	479.53	21	
541.32	Ba-131	11.5 d	(S)	496.26	43.7	123.78	29.1	
541.49	Te-131m	1.25 d	0.106	773.68	37.7	852.24	19.2	
541.70	Pt-191	*	2.9 d	0.368	538.91	13.7	409.48	8
542.82	Bi-214	19.9 m	0.0825	609.29	44.9	1764.5	15.8	
542.96	Pt-199	*	30.8 m	14.7	493.74	5.73	317.06	4.87
543.90	Pb-214	27 m	0.075	351.92	37	295.2	19.1	
544.25	Sb-129	4.4 h	17.9	812.4	42.9	914.3	20	
544.91	Te-131	25 m	0.416	149.72	68.3	452.33	18.1	
545.05	Tc-101	14.2 m	5.99	306.83	88	127.22	2.85	
545.28	Pt-199	30.8 m	(S)	542.96	14.7	493.74	5.73	
545.60	Pd-111m	5.5 h	(S)	391.18	5.37	632.5	3.56	
545.83	Dy-165	2.334 h	0.162	94.7	3.58	361.67	0.841	
546.56	I-135	6.55 h	7.12	1260.42	28.5	1131.52	22.5	
546.60	Ac-228	6.1 h	0.445	911	25	968.79	15	
546.91	Te-131m	1.25 d	0.0275	773.68	37.7	852.24	19.2	
546.99	Cs-138	32.2 m	10.8	1435.8	76.2	462.78	30.8	
547.01	I-132	2.284 h	1.25	667.73	98.6	772.68	76.2	
547.02	Pd-111	23.4 m	0.368	579.97	0.836	1458.85	0.561	
547.30	Hf-181	42.39 d	(S)	482	80.6	132.94	35.8	
547.37	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
547.39	W-187	23.9 h	(S)	685.74	26.4	479.53	21	
548.20	Ac-228	6.1 h	(S)	911	25	968.79	15	
549.20	Ac-228	6.1 h	(S)	911	25	968.79	15	
549.42	Nb-97	1.202 h	0.0491	658.22	98.3	1024.71	1.08	
549.73	Rn-220	*	55.6 s	0.07				
550.01	Nd-151	12.44 m	0.673	116.71	46.7	255.58	16.7	
550.42	Te-131	25 m	0.0275	149.72	68.3	452.33	18.1	
551.32	Ba-131	11.5 d	(S)	496.26	43.7	123.78	29.1	
551.37	Pd-109	13.7 h	0.000609	311.37	0.032	647.25	0.0243	
551.51	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
551.51	W-187	23.9 h	4.91	685.74	26.4	479.53	21	
551.53	Te-129	1.16 h	0.00354	459.52	7.69	487.31	1.42	
551.66	Ge-77	11.3 h	(E)	264.42	50.9	211.01	29.1	
552.00	Te-129	1.16 h	0.00138	459.52	7.69	487.31	1.42	
552.09	Th-233	22.3 m	0.0239	108.4	0.301	459.32	1.39	
552.11	Ac-228	6.1 h	(S)	911	25	968.79	15	
552.19	Ac-228	6.1 h	(S)	911	25	968.79	15	
552.35	Se-81	18.5 m	0.11	275.99	0.869	290.12	0.765	
552.37	Te-129m	33.6 d	0.000281	695.84	2.99	729.53	0.696	
552.97	In-117	43.8 m	99.7					
553.01	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
553.98	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
554.04	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
554.30	Br-82	*	1.4708 d	70.4	776.5	83.2	619.1	43.3

555.19	Ac-228		6.1 h	0.047	911	25	968.79	15
555.26	Ce-143		1.375 d	(S)	293.28	42	664.58	5.25
555.56	Y-91m	*	49.71 m	94.9				
555.83	Rh-104	*	42.3 s	1.99	1237.05	0.0657	358	0.016
555.90	Ac-228		6.1 h	0.0137	911	25	968.79	15
556.07	Rb-86m	*	1.017 m	98.2				
556.20	Ac-228		6.1 h	(S)	911	25	968.79	15
556.41	Nd-149		1.73 h	1.2	211.29	27.2	114.31	18.7
556.56	Te-129m		33.6 d	0.117	695.84	2.99	729.53	0.696
557.02	Ru-103		39.254 d	0.832	497.05	88.6	610.3	5.63
557.34	Os-193		1.271 d	1.3	138.91	4.26	460.5	3.95
557.63	Eu-154		8.8 y	0.256	123.1	40.4	1274.54	35.4
557.75	Ge-77		11.3 h	0.0408	264.42	50.9	211.01	29.1
557.97	Ge-77		11.3 h	15.2	264.42	50.9	211.01	29.1
558.06	Te-131m		1.25 d	0.0227	773.68	37.7	852.24	19.2
558.08	Pd-109		13.7 h	0.00243	311.37	0.032	647.25	0.0243
558.43	In-114m	*	49.51 d	4.38	190.28	15.4	725.24	4.33
558.46	Cd-113 (n.g)							Cosmic bg
559.08	As-76	*	1.097 d	45	657.06	6.16	1216.14	3.41
559.27	Er-171		7.52 h	0.0466	308.33	64.4	295.67	28.9
559.60	Te-129		1.16 h	(S)	459.52	7.69	487.31	1.42
560.02	Te-129		1.16 h	0.00608	459.52	7.69	487.31	1.42
561.11	Y-92		3.54 h	2.41	934.53	13.8	1405.4	4.78
561.26	Bi-214		19.9 m	(E)	609.29	44.9	1764.5	15.8
562.12	Ac-228		6.1 h	(S)	911	25	968.79	15
562.79	Th-233		22.3 m	0.07	108.4	0.301	459.32	1.39
562.91	Ac-228		6.1 h	1.01	911	25	968.79	15
562.92	Eu-152m1		9.32 h	0.249	841.58	14.5	963.36	11.9
563.15	Ba-131		11.5 d	(S)	496.26	43.7	123.78	29.1
563.23	Cs-134		2.062 y	8.39	604.71	97.5	795.87	85.3
563.26	As-76		1.097 d	1.19	559.08	45	657.06	6.16
564.01	Eu-152		13.33 y	0.458	121.78	28.3	344.29	26
564.37	Sb-122	*	2.7 d	70	692.89	3.81	1257.26	0.805
564.40	Cd-117m		3.36 h	14.6	1065.98	30	1997.31	26.2
564.89	Pm-151		1.1833 d	0.349	340.05	22.4	167.72	7.83
565.18	Ba-131		11.5 d	(S)	496.26	43.7	123.78	29.1
565.67	Eu-152		13.33 y	(S)	121.78	28.3	344.29	26
565.70	Dy-165		2.334 h	0.129	94.7	3.58	361.67	0.841
565.99	Te-134	*	41.8 m	18.3	767.21	28	210.45	22.2
566.11	Se-81	*	18.5 m	0.258	275.99	0.869	290.12	0.765
566.42	Eu-152		13.33 y	0.129	121.78	28.3	344.29	26
566.66	Mo-101		14.6 m	0.733	191.94	18.7	590.93	16.3
567.30	Ba-140		12.746 d	(S)	537.31	24.3	162.7	6.2
567.33	Te-131		25 m	0.103	149.72	68.3	452.33	18.1
567.45	Mg-28		20.9 h	(E)	1342.15	54.1	941.56	36.2
568.88	Pt-191		2.9 d	0.0528	538.91	13.7	409.48	8
569.31	Ru-97		2.88 d	0.89	215.7	85.9	324.49	10.2
569.31	Cs-134		2.062 y	15.4	604.71	97.5	795.87	85.3
569.42	Ge-77		11.3 h	0.0745	264.42	50.9	211.01	29.1
569.64	Tl-207		4.77 m	0.00102	897.79	0.237	328.15	0.00143
569.91	Ac-228		6.1 h	(S)	911	25	968.79	15
571.60	As-76		1.097 d	0.14	559.08	45	657.06	6.16
572.10	Ac-228		6.1 h	0.264	911	25	968.79	15
572.55	Te-131m		1.25 d	0.0395	773.68	37.7	852.24	19.2
572.65	Ba-131		11.5 d	0.159	496.26	43.7	123.78	29.1
572.68	Bi-214		19.9 m	0.083	609.29	44.9	1764.5	15.8
573.13	Te-121	*	16.8 d	80.2	507.59	17.7	470.46	1.4
573.20	Os-193		1.271 d	0.0193	138.91	4.26	460.5	3.95
573.57	Th-233		22.3 m	0.042	108.4	0.301	459.32	1.39
574.04	La-140		1.678 d	(E)	1596.54	95.3	487.02	45.9
574.30	Te-133m		55.4 m	2.3	912.58	62.9	647.4	21.4
574.54	La-140		1.678 d	(E)	1596.54	95.3	487.02	45.9
574.91	Te-131		25 m	0.031	149.72	68.3	452.33	18.1

574.95	Pm-151	1.1833 d	0.117	340.05	22.4	167.72	7.83	
574.98	Pd-111m	5.5 h	3.18	391.18	5.37	632.5	3.56	
575.10	Ru-105	4.44 h	0.841	724.27	46.6	469.35	17.2	
575.18	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
575.30	As-76	1.097 d	0.068	559.1	45			
575.55	Dy-165	2.334 h	0.0787	94.7	3.58	361.67	0.841	
576.08	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
576.11	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
576.50	Pt-191	2.9 d	0.09	538.91	13.7	409.48	8	
577.37	Nd-151	12.44 m	0.444	116.71	46.7	255.58	16.7	
578.80	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
579.62	Ac-228	6.1 h	(S)	911	25	968.79	15	
579.97	Pd-111	*	23.4 m	0.836	1458.85	0.561	650.37	0.551
580.30	Pb-214	27 m	0.4	351.92	37	295.2	19.1	
580.32	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
580.78	Gd-159	18.56 h	0.0616	363.5	11	348.13	0.216	
582.06	Eu-154	8.8 y	0.841	123.1	40.4	1274.54	35.4	
582.51	Ge-77	11.3 h	0.738	264.42	50.9	211.01	29.1	
583.19	Tl-208	*	5.053 m	84.1	2614.59	98.6	510.81	21.6
								Th daughter
583.37	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
583.63	Pt-191	2.9 d	0.0759	538.91	13.7	409.48	8	
584.97	Ba-131	11.5 d	1.22	496.26	43.7	123.78	29.1	
585.32	Nd-151	12.44 m	1.58	116.71	46.7	255.58	16.7	
585.47	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
586.10	I-130	12.5 h	1.58	536				
586.29	Te-131m	1.25 d	1.87	773.68	37.7	852.24	19.2	
586.30	Eu-152	13.33 y	0.461	121.78	28.3	344.29	26	
587.13	Ce-143	1.375 d	0.243	293.28	42	664.58	5.25	
587.55	Ga-72	14.1 h	0.121	834.09	95.6	2201.7	25.8	
588.00	Pt-191	2.9 d	0.136	538.91	13.7	409.48	8	
588.58	Ir-192	73.831 d	4.46	316.51	83.1	468.07	47.6	
589.12	W-187	23.9 h	0.117	685.74	26.4	479.53	21	
589.19	Ir-194	19.15 h	0.137	328.46	13	293.55	2.52	
589.36	Nd-147	10.98 d	0.0458	91.1	27.9	531.01	13.1	
589.78	Sn-125m	9.52 m	0.204	332.04	96.9	1403.68	0.699	
590.20	Sr-93	*	7.4 m	66.5	875.86	23.9	888.18	21.6
590.81	Tc-100	*	15.8 s	5.7	539.59	7	1536.81	0.429
590.93	Mo-101	*	14.6 m	16.3	191.94	18.7	1012.53	12.8
591.08	Pm-149	2.2117 d	0.0625	286.03	2.85	859.42	0.0936	
591.12	I-132	2.284 h	0.0591	667.73	98.6	772.68	76.2	
591.81	Eu-154	8.8 y	4.83	123.1	40.4	1274.54	35.4	
592.07	Os-185	93.6 d	1.33	646.11	80.9	874.81	6.61	
592.10	Ac-228	6.1 h	(S)	911	25	968.79	15	
594.80	Nd-147	10.98 d	0.264	91.1	27.9	531.01	13.1	
595.32	Th-233	22.3 m	0.16	108.4	0.301	459.32	1.39	
595.37	I-134	52.6 m	11.2	847.06	95.3	884.13	64.9	
596.00	Zn-71m	3.94 h	27.9	386.38	93	487.36	62.3	
595.85	Ge-							
	73(n,gamma)							cosmic bg
597.20	Te-131m	1.25 d	0.0496	773.68	37.7	852.24	19.2	
597.40	Nd-151	12.44 m	0.795	116.71	46.7	255.58	16.7	
597.82	Ac-228	6.1 h	(S)	911	25	968.79	15	
599.11	Th-233	22.3 m	0.047	108.4	0.301	459.32	1.39	
599.95	I-132	2.284 h	0.0888	667.73	98.6	772.68	76.2	
600.50	Sb-125	2.73 y	17.8	427.88	29.3	635.89	11.2	
601.02	Ga-72	14.1 h	5.55	834.09	95.6	2201.7	25.8	
602.01	Ac-228	6.1 h	(S)	911	25	968.79	15	
602.05	Te-131	25 m	4.13	149.72	68.3	452.33	18.1	
602.05	Te-131m	1.25 d	0.27	773.68	37.7	852.24	19.2	
602.52	Pd-109	13.7 h	0.00798	311.37	0.032	647.25	0.0243	
602.56	Zr-97	16.9 h	1.38	507.7	5.05	1147.94	2.64	
602.73	Sb-124	60.2 d	97.7	1690.97	47	722.78	10.9	
602.73	Sb-124m1	1.55 m	25	645.86	25	498.4	24.5	

602.85	Eu-154	8.8 y	0.0372	123.1	40.4	1274.54	35.4		
602.92	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1		
604.41	Ir-192	73.831 d	8.24	316.51	83.1	468.07	47.6		
604.71	Cs-134	2.062 y	97.5	795.87	85.3	569.31	15.4		
605.59	Te-131	25 m	0.116	149.72	68.3	452.33	18.1		
606.30	Br-82	1.4708 d	1.26	776.5	83.2	554.3	70.4		
606.63	Sb-125	2.73 y	5.01	427.88	29.3	600.5	17.8		
606.99	Ac-228	6.1 h	(S)	911	25	968.79	15		
607.61	Ac-228	6.1 h	(S)	911	25	968.79	15		
608.18	Xe-135	9.104 h	2.8	249.79	90				
608.36	Mo-101	14.6 m	1.07	191.94	18.7	590.93	16.3		
608.56	Ti-51	5.76 m	1.17	320.08	93	928.64	6.87		
608.81	Hf-181	42.39 d	(S)	482	80.6	132.94	35.8		
609.16	Sm-153	1.946 d	0.0127	103.18	28.3	97.43	0.729		
609.31	Bi-214	*	19.9 m	44.9	1764.5	15.8	1120.31	15.3	Ra daughter
609.40	Te-131m	1.25 d	0.13	773.68	37.7	852.24	19.2		
609.46	Ni-65	2.52 h	0.14	1481.9	23.5	1115.52	14.7		
609.81	Th-233	22.3 m	0.085	108.4	0.301	459.32	1.39		
609.90	Ac-228	6.1 h	(S)	911	25	968.79	15		
610.20	Pt-199	30.8 m	0.0147	542.96	14.7	493.74	5.73		
610.30	Ru-103	39.254 d	5.63	497.05	88.6	557.02	0.832		
610.73	Ge-77	11.3 h	0.0582	264.42	50.9	211.01	29.1		
611.74	W-187	23.9 h	0.002	685.74	26.4	479.53	21		
612.47	Ir-192	73.831 d	5.23	316.51	83.1	468.07	47.6		
613.34	Eu-154	8.8 y	0.0923	123.1	40.4	1274.54	35.4		
613.76	W-187	23.9 h	(S)	685.74	26.4	479.53	21		
613.81	Ge-77	11.3 h	0.0841	264.42	50.9	211.01	29.1		
614.47	Ge-77	11.3 h	0.498	264.42	50.9	211.01	29.1		
614.47	Ge-77m	52.9 s	0.0413	215.48	20.8	194.75	0.482		
614.94	Hf-181	42.39 d	0.258	482	80.6	132.94	35.8		
615.42	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26		
616.10	Ac-228	6.1 h	0.0966	911	25	968.79	15		
616.87	Br-80	*	17.68 m	6.69	665.94	1.08	639.92	0.252	
617.30	Ac-228	6.1 h	(S)	911	25	968.79	15		
617.68	Ge-75	1.3797 h	0.112	264.66	11.2	198.6	1.31		
617.70	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1		
618.13	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9		
618.33	La-140	1.678 d	0.0599	1596.54	95.3	487.02	45.9		
618.34	W-187	23.9 h	6.07	685.74	26.4	479.53	21		
618.43	Pt-191	2.9 d	0.0088	538.91	13.7	409.48	8		
618.58	Hf-181	42.39 d	0.0403	482	80.6	132.94	35.8		
618.77	Ag-108	2.37 m	0.26	632.99	1.75	433.94	0.499		
619.10	Br-82	1.4708 d	43.3	776.5	83.2	554.3	70.4		
619.90	Ac-228	6.1 h	0.0633	911	25	968.79	15		
620.04	Ba-131	11.5 d	1.57	496.26	43.7	123.78	29.1		
620.06	Sr-91	9.52 h	1.77	1024.28	33.3	749.72	23.5		
620.21	Ac-228	6.1 h	(S)	911	25	968.79	15		
620.29	Zn-71m	3.94 h	56.6	386.38	93	487.36	62.3		
620.36	Ag-110m	249.76 d	2.81	657.76	94.6	884.68	72.6		
620.59	Cl-38	37.24 m	(E)	2167.68	42	1642.59	31		
620.63	Dy-165	2.334 h	0.0974	94.7	3.58	361.67	0.841		
620.70	Ac-228	6.1 h	0.072	911	25	968.79	15		
620.93	I-132	2.284 h	0.395	667.73	98.6	772.68	76.2		
621.06	Er-171	7.52 h	0.089	308.33	64.4	295.67	28.9		
621.17	I-132	2.284 h	1.58	667.73	98.6	772.68	76.2		
621.27	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39		
621.81	I-134	52.6 m	10.6	847.06	95.3	884.13	64.9		
622.01	Ir-194	19.15 h	0.335	328.46	13	293.55	2.52		
623.13	Pd-111	23.4 m	0.275	579.97	0.836	1458.85	0.561		
624.13	Pt-191	2.9 d	1.4	538.91	13.7	409.48	8		
624.29	Te-129	1.16 h	0.0969	459.52	7.69	487.31	1.42		
624.69	Ge-77	11.3 h	0.172	264.42	50.9	211.01	29.1		
624.96	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6		

625.02	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
625.26	Eu-154	8.8 y	0.314	123.1	40.4	1274.54	35.4	
625.47	W-187	23.9 h	1.05	685.74	26.4	479.53	21	
626.26	Ag-110m	249.76 d	0.214	657.76	94.6	884.68	72.6	
627.10	Tc-101	14.2 m	0.387	306.83	88	545.05	5.99	
627.98	I-134	52.6 m	2.2	847.06	95.3	884.13	64.9	
628.57	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8	
630.01	Ga-72	*	14.1 h	24.9	834.09	95.6	2201.7	25.8
630.24	Rh-104	42.3 s	0.00099	555.83	1.99	1237.05	0.0657	
630.27	I-132	*	2.284 h	13.7	667.73	98.6	772.68	76.2
630.36	Re-186	3.777 d	0.0235	137.14	8.48	122.43	0.654	
631.79	Ge-77	11.3 h	6.58	264.42	50.9	211.01	29.1	
632.14	Y-95	10.3 m	0.322	954.13	18	1324.13	5.25	
632.40	Sb-124	60.2 d	0.0977	602.73	97.7	1690.97	47	
632.50	Pd-111m	5.5 h	3.56	391.18	5.37	574.98	3.18	
632.99	Ag-108	*	2.37 m	1.75	433.94	0.499	618.77	0.26
633.08	Re-188	16.98 h	1.25	155.06	14.9	478.02	1.04	
633.11	Bi-214	19.9 m	0.06	609.29	44.9	1764.5	15.8	
633.18	Pt-191	2.9 d	0.0239	538.91	13.7	409.48	8	
633.42	Dy-165	*	2.334 h	0.567	94.7	3.58	361.67	0.841
634.46	Ge-77	11.3 h	1.96	264.42	50.9	211.01	29.1	
635.25	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
635.89	Sb-125	2.73 y	11.2	427.88	29.3	600.5	17.8	
636.07	Pm-151	1.1833 d	1.37	340.05	22.4	167.72	7.83	
636.31	Pd-109	*	13.7 h	0.00998	311.37	0.032	647.25	0.0243
636.97	I-131	*	8.04 d	7.5	364.48	80.8	284.3	6.03
637.32	Te-131m	1.25 d	0.0175	773.68	37.7	852.24	19.2	
637.41	Ac-228	6.1 h	(S)	911	25	968.79	15	
638.42	Ac-228	6.1 h	(S)	911	25	968.79	15	
639.08	Os-193	1.271 d	0.0075	138.91	4.26	460.5	3.95	
639.15	Ge-77	11.3 h	0.0383	264.42	50.9	211.01	29.1	
639.27	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
639.92	Br-80	17.68 m	0.252	616.87	6.69	665.94	1.08	
640.14	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
640.20	Ac-228	6.1 h	0.0744	911	25	968.79	15	
641.25	La-142	*	1.542 h	47.4	894.93	8.49	1901.44	7.87
641.65	Pd-111	23.4 m	0.0586	579.97	0.836	1458.85	0.561	
642.34	Th-233	22.3 m	0.0279	108.4	0.301	459.32	1.39	
642.71	I-131	8.04 d	0.225	364.48	80.8	636.97	7.5	
642.80	Mo-101	14.6 m	1.23	191.94	18.7	590.93	16.3	
644.66	Pt-199	30.8 m	0.0888	542.96	14.7	493.74	5.73	
645.16	Ir-194	19.15 h	1.15	328.46	13	293.55	2.52	
645.86	Sb-124	60.2 d	7.37	602.73	97.7	1690.97	47	
645.86	Sb-124m1	*	1.55 m	25	602.73	25	498.4	24.5
646.11	Os-185	*	93.6 d	80.9	874.81	6.61	880.26	5
646.81	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
647.25	Pd-109	*	13.7 h	0.0243	311.37	0.032	781.42	0.0112
647.40	Te-133m	55.4 m	21.4	912.58	62.9	863.91	18.3	
647.47	V-52	3.75 m	0.0241	1434.08	100	1333.65	0.587	
647.85	Ba-141	18.27 m	5.61	190.31	45.9	304.18	25.2	
647.89	Mg-28	20.9 h	0.085	1342.15	54.1	941.56	36.2	
649.19	Bi-214	19.9 m	0.0616	609.29	44.9	1764.5	15.8	
649.21	Ac-228	6.1 h	0.0122	911	25	968.79	15	
649.55	Eu-154	8.8 y	0.0716	123.1	40.4	1274.54	35.4	
649.89	Ac-228	6.1 h	(S)	911	25	968.79	15	
649.92	Se-81	18.5 m	0.0322	275.99	0.869	290.12	0.765	
650.37	Pd-111	*	23.4 m	0.551	579.97	0.836	1458.85	0.561
650.58	I-132	2.284 h	2.66	667.73	98.6	772.68	76.2	
651.23	Pt-199	30.8 m	0.0074	542.96	14.7	493.74	5.73	
651.29	Ac-228	6.1 h	0.106	911	25	968.79	15	
652.76	Ru-105	4.44 h	0.304	724.27	46.6	469.35	17.2	
653.00	Sr-91	9.52 h	8.01	1024.28	33.3	749.72	23.5	
654.10	Pm-151	1.1833 d	0.235	340.05	22.4	167.72	7.83	

654.29	Te-131	25 m	1.5	149.72	68.3	452.33	18.1	
654.81	Nd-149	1.73 h	7.33	211.29	27.2	114.31	18.7	
655.61	Ac-228	6.1 h	(S)	911	25	968.79	15	
656.25	Ru-105	4.44 h	2.02	724.27	46.6	469.35	17.2	
656.48	Eu-152	13.33 y	0.145	121.78	28.3	344.29	26	
657.06	As-76	1.097 d	6.16	559.08	45	1216.14	3.41	
657.47	Pt-199	30.8 m	(S)	542.96	14.7	493.74	5.73	
657.76	Ag-110	*	24.6 s	4.5				
657.76	Ag-110m	*	249.76 d	94.6	884.68	72.6	937.49	34.3
657.88	Rb-89	15.2 m	9.98	1032.08	57.9	1248.26	42.5	
658.22	Nb-97	*	1.202 h	98.3	1024.71	1.08	1268.86	0.157
658.64	Nd-151	12.44 m	0.841	116.71	46.7	255.58	16.7	
658.93	Pt-191	2.9 d	0.0115	538.91	13.7	409.48	8	
659.67	Ge-77	11.3 h	0.0291	264.42	50.9	211.01	29.1	
660.08	Dy-165	2.334 h	0.0266	94.7	3.58	361.67	0.841	
660.11	Os-193	1.271 d	(S)	138.91	4.26	460.5	3.95	
660.73	Bi-214	19.9 m	0.044	609.29	44.9	1764.5	15.8	
661.62	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
661.66	Cs-137	*	30.07 y	85.1				
661.66	Ba-137m	*	2.552 m	90			Cs-137 daughter	
663.23	Th-233	22.3 m	0.00239	108.4	0.301	459.32	1.39	
664.10	Ac-228	6.1 h	0.013	911	25	968.79	15	
664.58	Ce-143	*	1.375 d	5.25	293.28	42	721.96	5.12
664.67	Eu-154	8.8 y	0.0291	123.1	40.4	1274.54	35.4	
665.10	Te-131m	*	1.25 d	4.28	773.68	37.7	852.24	19.2
665.36	Pt-199	30.8 m	0.0607	542.96	14.7	493.74	5.73	
665.40	As-76	1.097 d	0.377	559.08	45	657.06	6.16	
665.43	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8	
665.47	Bi-214	19.9 m	1.55	609.29	44.9	1764.5	15.8	
665.92	Ac-228	6.1 h	(S)	911	25	968.79	15	
665.94	Br-80	17.68 m	1.08	616.87	6.69	639.92	0.252	
666.06	Pt-191	2.9 d	(S)	538.91	13.7	409.48	8	
666.11	Ac-228	6.1 h	0.042	911	25	968.79	15	
666.37	I-126	12.8 d	32.6	388.47	34.1			
666.82	Zn-71	2.45 m	0.896	511.65	30.2	910.35	7.83	
667.73	I-132	*	2.284 h	98.6	772.68	76.2	954.62	18.1
667.84	Pd-111m	5.5 h	0.978	391.18	5.37	632.5	3.56	
668.29	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
668.54	I-130	*	12.4 h	96.1	536.09	99	739.48	82.3
668.60	Os-193	1.271 d	(S)	138.91	4.26	460.5	3.95	
668.85	Eu-154	8.8 y	0.0298	123.1	40.4	1274.54	35.4	
668.97	Sb-124	60.2 d	(E)	602.73	97.7	1690.97	47	
669.05	Pm-151	1.1833 d	0.285	340.05	22.4	167.72	7.83	
669.78	Th-233	22.3 m	0.679	108.4	0.301	459.32	1.39	
669.86	I-132	2.284 h	4.94	667.73	98.6	772.68	76.2	
669.90	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
670.66	Er-171	7.52 h	0.252	308.33	64.4	295.67	28.9	
670.86	Nd-151	12.44 m	0.291	116.71	46.7	255.58	16.7	
671.19	Pm-151	1.1833 d	0.874	340.05	22.4	167.72	7.83	
671.38	Sb-125	2.73 y	1.8	427.88	29.3	600.5	17.8	
671.62	I-132	2.284 h	5.23	667.73	98.6	772.68	76.2	
671.79	Te-129m	33.6 d	0.0247	695.84	2.99	729.53	0.696	
672.53	Re-188	16.98 h	0.111	155.06	14.9	633.08	1.25	
672.98	Ge-77	11.3 h	0.504	264.42	50.9	211.01	29.1	
673.63	Ge-77	11.3 h	0.126	264.42	50.9	211.01	29.1	
674.00	Ho-166	1.117 d	0.02	1379.32	0.93	1581.88	0.181	
674.30	Ac-228	6.1 h	0.0801	911	25	968.79	15	
674.39	Ba-131	11.5 d	0.129	496.26	43.7	123.78	29.1	
674.70	Eu-152	13.33 y	0.168	121.78	28.3	344.29	26	
675.89	Au-198	2.6935 d	0.802	411.8	95.5	1087.69	0.159	
675.96	Er-171	7.52 h	0.285	308.33	64.4	295.67	28.9	
676.33	Ru-105	*	4.44 h	15.5	724.27	46.6	469.35	17.2
676.59	Eu-154	8.8 y	0.14	123.1	40.4	1274.54	35.4	

676.82	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
677.30	Ac-228	6.1 h	0.047	911	25	968.79	15	
677.36	I-134	52.6 m	7.82	847.06	95.3	884.13	64.9	
677.62	Ag-110m	249.76 d	10.4	657.76	94.6	884.68	72.6	
677.89	Nd-151	12.44 m	2.62	116.71	46.7	255.58	16.7	
677.97	Th-233	22.3 m	0.0869	108.4	0.301	459.32	1.39	
678.59	Eu-152	13.33 y	0.469	121.78	28.3	344.29	26	
680.18	Pt-191	2.9 d	0.00687	538.91	13.7	409.48	8	
680.24	I-133	20.8 h	0.645	529.85	86.3	875.31	4.46	
680.40	Ge-77	11.3 h	0.0366	264.42	50.9	211.01	29.1	
680.44	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
680.46	Nd-147	10.98 d	0.0195	91.1	27.9	531.01	13.1	
680.50	Pb-203	2.169 d	0.72	279.19	80.8	401.31	3.43	
681.20	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
681.30	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
681.83	Te-131m	1.25 d	0.0586	773.68	37.7	852.24	19.2	
682.33	Tb-160	72.3 d	0.567	879.36	29.8	298.58	26.8	
682.77	Ce-143	1.375 d	(S)	293.28	42	664.58	5.25	
683.50	Sb-129	4.4 h	5.09	812.4	42.9	914.3	20	
684.19	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
685.18	Ge-77	11.3 h	0.0633	264.42	50.9	211.01	29.1	
685.36	Ge-77	11.3 h	0.0239	264.42	50.9	211.01	29.1	
685.43	Pd-111	23.4 m	0.0501	579.97	0.836	1458.85	0.561	
685.74	W-187	*	23.9 h	26.4	479.53	21	134.23	8.56
685.88	Te-131m	1.25 d	0.153	773.68	37.7	852.24	19.2	
685.90	Nd-147	10.98 d	0.811	91.1	27.9	531.01	13.1	
687.01	Ag-110m	249.76 d	6.44	657.76	94.6	884.68	72.6	
687.16	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
687.70	Ac-228	6.1 h	(S)	911	25	968.79	15	
688.00	Ac-228	6.1 h	0.0563	911	25	968.79	15	
688.67	Eu-152	13.33 y	0.865	121.78	28.3	344.29	26	
688.67	Eu-152m1	9.32 h	0.0924	841.58	14.5	963.36	11.9	
690.04	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
690.45	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
690.70	Zr-97	16.9 h	0.25	507.7	5.05	1147.94	2.64	
692.48	Eu-154	8.8 y	1.68	123.1	40.4	1274.54	35.4	
692.89	Sb-122	2.7 d	3.81	564.37	70	1257.26	0.805	
693.83	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
693.96	Y-91	58.51 d	(E)	1204.96	0.3	182.96	(E)	
694.09	Dy-165	2.334 h	0.0115	94.7	3.58	361.67	0.841	
694.13	Pd-111m	5.5 h	2	391.18	5.37	632.5	3.56	
695.09	Os-193	1.271 d	0.00283	138.91	4.26	460.5	3.95	
695.57	Te-131m	1.25 d	0.379	773.68	37.7	852.24	19.2	
695.67	Mo-101	14.6 m	7.2	191.94	18.7	590.93	16.3	
695.84	Te-129m	*	33.6 d	2.99	729.53	0.696	556.56	0.117
696.43	Ba-131	11.5 d	0.146	496.26	43.7	123.78	29.1	
698.40	Br-82	1.4708 d	27.9	776.5	83.2	554.3	70.4	
698.50	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
698.51	Ge-77	11.3 h	0.216	264.42	50.9	211.01	29.1	
698.65	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
699.18	Zr-97	16.9 h	0.12	507.7	5.05	1147.94	2.64	
701.01	Te-129	1.16 h	0.00131	459.52	7.69	487.31	1.42	
701.61	Ac-228	6.1 h	0.164	911	25	968.79	15	
701.74	Te-129m	33.6 d	0.0247	695.84	2.99	729.53	0.696	
701.89	Pd-109	13.7 h	0.0031	311.37	0.032	647.25	0.0243	
701.96	Mo-101	14.6 m	0.375	191.94	18.7	590.93	16.3	
702.52	Te-131m	1.25 d	0.366	773.68	37.7	852.24	19.2	
702.63	Nb-94m	6.26 m	0.00314	871.1	0.5			
703.07	Bi-214	19.9 m	0.473	609.29	44.9	1764.5	15.8	
702.75	Te-133m	55.4 m	2.7	912.58	62.9	647.4	21.4	
703.56	Eu-152m1	9.32 h	0.0678	841.58	14.5	963.36	11.9	
703.70	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
703.76	Zr-97	16.9 h	0.927	507.7	5.05	1147.94	2.64	

704.17	Pm-151	1.1833 d	0.322	340.05	22.4	167.72	7.83	
704.29	Pb-211	36.1 m	0.432	404.8	3.98	831.79	3.5	
704.37	Br-80	17.68 m	0.193	616.87	6.69	665.94	1.08	
705.17	Ge-77	11.3 h	0.102	264.42	50.9	211.01	29.1	
705.32	Ho-166	1.117 d	0.0146	1379.32	0.93	1581.88	0.181	
705.48	Te-129m	33.6 d	0.00515	695.84	2.99	729.53	0.696	
705.87	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
706.55	I-133	20.8 h	1.49	529.85	86.3	875.31	4.46	
706.68	Ag-110m	249.76 d	16.3	657.76	94.6	884.68	72.6	
706.98	Pd-109	13.7 h	0.00159	311.37	0.032	647.25	0.0243	
707.20	Os-185	93.6 d	(S)	646.11	80.9	874.81	6.61	
707.30	Ac-228	6.1 h	0.128	911	25	968.79	15	
707.60	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
707.80	Th-233	22.3 m	0.0119	108.4	0.301	459.32	1.39	
709.32	Sb-124	60.2 d	1.35	602.73	97.7	1690.97	47	
709.74	Pd-111	23.4 m	0.126	579.97	0.836	1458.85	0.561	
710.29	Sr-93	7.4 m	21.2	590.2	66.5	875.86	23.9	
712.09	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
712.11	Os-193	1.271 d	0.0154	138.91	4.26	460.5	3.95	
712.30	Ge-77	11.3 h	0.783	264.42	50.9	211.01	29.1	
712.74	Cd-117	2.49 h	0.566	273.35	27.9	1303.26	18.4	
712.86	Eu-152	13.33 y	0.0958	121.78	28.3	344.29	26	
713.10	Mo-101	14.6 m	3.37	191.94	18.7	590.93	16.3	
713.12	Te-131m	1.25 d	1.36	773.68	37.7	852.24	19.2	
713.78	Sb-124	60.2 d	2.27	602.73	97.7	1690.97	47	
714.31	Tc-100	15.8 s	0.07	539.59	7	590.81	5.7	
714.33	Ge-77	* 11.3 h	6.76	264.42	50.9	211.01	29.1	
714.55	Pt-199	30.8 m	1.87	542.96	14.7	493.74	5.73	
714.91	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4	
715.33	Dy-165	* 2.334 h	0.533	94.7	3.58	361.67	0.841	
715.83	Eu-154	8.8 y	0.175	123.1	40.4	1274.54	35.4	
716.80	Th-233	22.3 m	0.0559	108.4	0.301	459.32	1.39	
717.42	Os-185	93.6 d	4.12	646.11	80.9	874.81	6.61	
717.67	Pm-151	1.1833 d	3.99	340.05	22.4	167.72	7.83	
718.18	Se-83	* 22.5 m	16.2	356.71	68.6	510.04	44.2	
719.33	Eu-152	13.33 y	0.0594	121.78	28.3	344.29	26	
719.42	Eu-152	13.33 y	0.266	121.78	28.3	344.29	26	
719.87	Bi-214	19.9 m	0.404	609.29	44.9	1764.5	15.8	
720.00	Tc-101	14.2 m	0.229	306.83	88	545.05	5.99	
721.37	Zn-71	2.45 m	0.544	511.65	30.2	910.35	7.83	
721.96	Ce-143	* 1.375 d	5.12	293.28	42	664.58	5.25	
722.78	Sb-124	60.2 d	10.9	602.73	97.7	1690.97	47	
722.89	I-131	8.04 d	1.84	364.48	80.8	636.97	7.5	
723.35	Eu-154	* 8.8 y	19.6	123.1	40.4	1274.54	35.4	
724.19	Nd-151	12.44 m	0.275	116.71	46.7	255.58	16.7	
724.20	Zr-95	64.02 d	44.1	756.73	54.5			
724.27	Ru-105	* 4.44 h	46.6	469.35	17.2	676.33	15.5	
724.34	Pd-109	13.7 h	0.000187	311.37	0.032	647.25	0.0243	
724.99	Th-233	22.3 m	0.0869	108.4	0.301	459.32	1.39	
725.24	In-114m	49.51 d	4.33	190.28	15.4	558.43	4.38	
725.76	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
726.69	Ac-228	6.1 h	0.766	911	25	968.79	15	
726.80	I-132	2.284 h	2.16	667.73	98.6	772.68	76.2	
726.94	I-132	2.284 h	3.16	667.73	98.6	772.68	76.2	
727.01	Te-131	25 m	0.454	149.72	68.3	452.33	18.1	
727.28	As-76	1.097 d	0.0186	559.08	45	657.06	6.16	
727.29	Bi-212	* 1.009 h	6.7	1620.59	1.52	785.41	1.16	Th daughter
728.70	I-132	2.284 h	1.09	667.73	98.6	772.68	76.2	
729.53	Te-129	1.16 h	0.00129	459.52	7.69	487.31	1.42	
729.53	Te-129m	33.6 d	0.696	695.84	2.99	556.56	0.117	
730.62	Ge-77	11.3 h	0.0195	264.42	50.9	211.01	29.1	
730.78	I-134	52.6 m	1.81	847.06	95.3	884.13	64.9	
732.32	Te-129	1.16 h	0.00131	459.52	7.69	487.31	1.42	

732.45	Er-171	7.52 h	0.0975	308.33	64.4	295.67	28.9	
732.98	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
733.07	Mo-101	14.6 m	0.26	191.94	18.7	590.93	16.3	
734.65	Pt-199	30.8 m	(S)	542.96	14.7	493.74	5.73	
734.80	Tc-100	15.8 s	0.00883	539.59	7	590.81	5.7	
735.60	Ga-72	14.1 h	0.366	834.09	95.6	2201.7	25.8	
735.60	Br-82	1.4708 d	0.0712	776.5	83.2	554.3	70.4	
735.70	Sb-124	60.2 d	0.127	602.73	97.7	1690.97	47	
735.81	Pr-146	24.15 m	7.44	453.89	47.9	1524.78	15.6	
736.01	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
736.06	Pm-151	1.1833 d	0.461	340.05	22.4	167.72	7.83	
736.27	Nd-151	*	12.44 m	7.19	116.71	46.7	255.58	16.7
736.69	Pd-109	13.7 h	0.00167	311.37	0.032	647.25	0.0243	
738.76	Te-131m	1.25 d	0.0611	773.68	37.7	852.24	19.2	
739.13	Nd-151	12.44 m	1.53	116.71	46.7	255.58	16.7	
739.48	I-130	*	12.4 h	82.3	536.09	99	668.54	96.1
739.50	Mo-99	*	2.7477 d	12	181.07	6.07	140.47	4.4
740.14	As-76	1.097 d	0.115	559.08	45	657.06	6.16	
740.85	Bi-214	19.9 m	0.0387	609.29	44.9	1764.5	15.8	
740.88	Pm-151	1.1833 d	0.0204	340.05	22.4	167.72	7.83	
740.90	Th-233	22.3 m	0.031	108.4	0.301	459.32	1.39	
740.93	Te-129	1.16 h	0.0375	459.52	7.69	487.31	1.42	
740.93	Te-129m	33.6 d	0.027	695.84	2.99	729.53	0.696	
742.50	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
742.52	Te-134	41.8 m	15	767.21	28	210.45	22.2	
742.78	Pa-234m	1.17 m	0.0462	1001.01	0.559	809.88	0.458	
743.32	Nb-97m	*	1 m	98				Zr-97 (16.9 h)
743.41	I-128	24.99 m	0.164	442.92	16.8	526.57	1.57	
743.60	Ge-77	11.3 h	0.167	264.42	50.9	211.01	29.1	
744.22	Te-131m	1.25 d	1.65	773.68	37.7	852.24	19.2	
744.27	Ag-110m	249.76 d	4.7	657.76	94.6	884.68	72.6	
744.90	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
745.25	W-187	23.9 h	0.287	685.74	26.4	479.53	21	
745.73	Ge-77	11.3 h	0.914	264.42	50.9	211.01	29.1	
746.33	Pt-199	30.8 m	0.0385	542.96	14.7	493.74	5.73	
747.86	Pt-191	2.9 d	0.00416	538.91	13.7	409.48	8	
748.06	Cd-117m	3.36 h	5.87	1065.98	30	1997.31	26.2	
749.72	Sr-91	*	9.52 h	23.5	1024.28	33.3	653	8.01
749.83	Ge-77	11.3 h	0.835	264.42	50.9	211.01	29.1	
751.65	La-140	1.678 d	4.26	1596.54	95.3	487.02	45.9	
752.20	Pd-111	23.4 m	(S)	579.97	0.836	1458.85	0.561	
752.79	Pm-151	1.1833 d	1.22	340.05	22.4	167.72	7.83	
752.86	Bi-214	19.9 m	0.126	609.29	44.9	1764.5	15.8	
752.90	Pt-199	30.8 m	0.0444	542.96	14.7	493.74	5.73	
753.54	Zn-71m	3.94 h	3.25	386.38	93	487.36	62.3	
753.57	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	
753.80	I-126	12.8 d	3.94	388.47	34.1			
754.37	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
754.81	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
755.17	Si-31	2.622 h	(E)	1266.17	0.07	244.17	(E)	
755.21	Ac-228	6.1 h	1.1	911	25	968.79	15	
755.41	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
755.64	Nd-151	12.44 m	1.43	116.71	46.7	255.58	16.7	
756.73	Zr-95	*	64.02 d	54.5	724.2	44.1		
756.80	Eu-154	8.8 y	4.33	123.1	40.4	1274.54	35.4	
756.99	Al-28	2.2406 m	(E)	1778.99	100	1267.99	(E)	
757.49	Ac-228	6.1 h	(S)	911	25	968.79	15	
757.83	Th-233	22.3 m	0.042	108.4	0.301	459.32	1.39	
759.42	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
762.07	Pd-111m	5.5 h	1.26	391.18	5.37	632.5	3.56	
762.61	Pt-191	2.9 d	0.0119	538.91	13.7	409.48	8	
763.21	Tl-208	5.053 m	1.63	2614.59	98.6	583.1	84.1	
763.94	Ag-110m	*	249.76 d	22.2	657.76	94.6	884.68	72.6

764.44	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4	
764.50	Th-233	22.3 m	0.119	108.4	0.301	459.32	1.39	
764.90	Eu-152	13.33 y	0.18	121.78	28.3	344.29	26	
765.27	Tb-160	72.3 d	2	879.36	29.8	298.58	26.8	
765.79	Nb-95	* 34.97 d	99.8					
766.29	Pb-211	36.1 m	0.364	404.8	3.98	831.79	3.5	
766.39	Pa-234m	1.17 m	0.225	1001.01	0.559	809.88	0.458	
766.68	Ge-77	11.3 h	0.742	264.42	50.9	211.01	29.1	
766.73	I-134	52.6 m	4.09	847.06	95.3	884.13	64.9	
767.21	Te-134	* 41.8 m	28	210.45	22.2	277.95	20.8	
767.50	Re-186	3.777 d	0.0262	137.14	8.48	122.43	0.654	
767.78	Rh-104	42.3 s	0.0112	555.83	1.99	1237.05	0.0657	
768.41	Bi-214	19.9 m	4.78	609.29	44.9	1764.5	15.8	Ra daughter
768.72	Te-129	1.16 h	0.00407	459.52	7.69	487.31	1.42	
768.72	Te-129m	33.6 d	0.00291	695.84	2.99	729.53	0.696	
768.95	Eu-152	13.33 y	0.0729	121.78	28.3	344.29	26	
770.66	Ni-65	2.52 h	0.0846	1481.9	23.5	1115.52	14.7	
771.39	Zn-71m	3.94 h	2.04	386.38	93	487.36	62.3	
771.78	As-76	1.097 d	0.121	559.08	45	657.06	6.16	
771.81	I-132	2.284 h	0.0196	667.73	98.6	772.68	76.2	
772.40	Ac-228	6.1 h	1.09	911	25	968.79	15	
772.68	I-132	* 2.284 h	76.2	667.73	98.6	954.62	18.1	
772.70	Pm-151	1.1833 d	0.828	340.05	22.4	167.72	7.83	
772.89	W-187	23.9 h	3.98	685.74	26.4	479.53	21	
773.45	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
773.68	Te-131m	* 1.25 d	37.7	852.24	19.2	793.76	13.1	
773.91	Ac-228	6.1 h	0.245	911	25	968.79	15	
774.00	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
774.13	Te-131m	1.25 d	0.516	773.68	37.7	852.24	19.2	
775.45	Pd-111	23.4 m	0.0419	579.97	0.836	1458.85	0.561	
775.85	Ge-77	11.3 h	0.0142	264.42	50.9	211.01	29.1	
776.50	Br-82	* 1.4708 d	83.2	554.3	70.4	619.1	43.3	
776.50	Br-82m	6.13 m	2.39					
777.26	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
777.74	Rh-104	42.3 s	0.00619	555.83	1.99	1237.05	0.0657	
777.92	Mo-99	2.7477 d	4.34	739.5	12	181.07	6.07	
778.92	Eu-152	13.33 y	13	121.78	28.3	344.29	26	
779.75	Te-133m	55.4 m	2.5	912.58	62.9	647.4	21.4	
780.11	I-132	2.284 h	1.22	667.73	98.6	772.68	76.2	
780.31	Pt-199	30.8 m	0.037	542.96	14.7	493.74	5.73	
780.60	Fe-59	44.496 d	(E)	1099.25	56.5	1291.6	43.2	
781.23	Ge-77	11.3 h	0.958	264.42	50.9	211.01	29.1	
781.30	Ac-228	6.1 h	(S)	911	25	968.79	15	
781.42	Pd-109	* 13.7 h	0.0112	311.37	0.032	647.25	0.0243	
781.89	Ac-228	6.1 h	0.487	911	25	968.79	15	
782.48	Te-131m	* 1.25 d	8.06	773.68	37.7	852.24	19.2	
783.08	Th-233	22.3 m	0.00609	108.4	0.301	459.32	1.39	
783.78	Er-171	7.52 h	0.239	308.33	64.4	295.67	28.9	
784.24	Os-193	1.271 d	0.000671	138.91	4.26	460.5	3.95	
784.58	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
784.66	Ge-77	11.3 h	1.23	264.42	50.9	211.01	29.1	
784.88	I-132	2.284 h	0.424	667.73	98.6	772.68	76.2	
785.01	Ru-97	2.88 d	0.0819	215.7	85.9	324.49	10.2	
785.02	Pm-151	1.1833 d	0.202	340.05	22.4	167.72	7.83	
785.41	Bi-212	1.009 h	1.16	727.29	6.7	1620.59	1.52	
785.82	Ac-228	6.1 h	(S)	911	25	968.79	15	
785.88	Pb-214	27 m	0.975	351.92	37	295.2	19.1	
785.89	Rh-104	42.3 s	0.00358	555.83	1.99	1237.05	0.0657	
785.89	Ho-166	1.117 d	0.0133	1379.32	0.93	1581.88	0.181	
786.06	Ca-47	4.536 d	(E)	1297.06	74.9	807.85	6.88	
786.27	Pa-234m	1.17 m	0.0283	1001.01	0.559	809.88	0.458	
786.42	Bi-214	19.9 m	0.308	609.29	44.9	1764.5	15.8	
786.52	Ga-72	14.1 h	3.2	834.09	95.6	2201.7	25.8	

786.88	Pt-199	30.8 m	0.0339	542.96	14.7	493.74	5.73	
788.10	Nb-98m	* 51.3 m	93.2					
788.77	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
789.00	Ge-77	11.3 h	0.0917	264.42	50.9	211.01	29.1	
790.60	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
790.70	Sb-124	60.2 d	0.738	602.73	97.7	1690.97	47	
791.16	Ce-143	1.375 d	0.0167	293.28	42	664.58	5.25	
791.47	I-132	2.284 h	0.0888	667.73	98.6	772.68	76.2	
791.73	Pt-199	30.8 m	1.07	542.96	14.7	493.74	5.73	
792.39	Ac-228	6.1 h	(S)	911	25	968.79	15	
793.51	Ac-228	6.1 h	(S)	911	25	968.79	15	
793.76	Te-131m	* 1.25 d	13.1	773.68	37.7	852.24	19.2	
794.30	Ge-77	11.3 h	0.262	264.42	50.9	211.01	29.1	
794.59	Te-129m	33.6 d	0.000562	695.84	2.99	729.53	0.696	
794.79	Ac-228	6.1 h	4.33	911	25	968.79	15	Th daughter
795.87	Cs-134	* 2.062 y	85.3	604.71	97.5	569.31	15.4	
795.97	Pm-151	1.1833 d	0.054	340.05	22.4	167.72	7.83	
796.44	Er-171	7.52 h	0.64	308.33	64.4	295.67	28.9	
796.60	Ac-228	6.1 h	0.0805	911	25	968.79	15	
797.41	Pd-111m	5.5 h	1.02	391.18	5.37	632.5	3.56	
797.44	Ba-131	11.5 d	0.0199	496.26	43.7	123.78	29.1	
797.51	Nd-151	* 12.44 m	5.5	116.71	46.7	255.58	16.7	
797.99	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
798.87	Ge-77	11.3 h	0.0454	264.42	50.9	211.01	29.1	
799.10	Se-83	* 22.5 m	16.1	356.71	68.6	510.04	44.2	
								Daughter of Bi-
799.70	Po-214	0.0001 63	0.010	0	214 (Ra)			
800.23	Sn-125	9.64 d	0.993	1067.03	9.03	1089.17	4.28	
800.39	Eu-154	8.8 y	0.0322	123.1	40.4	1274.54	35.4	
801.80	Te-131m	1.25 d	0.0164	773.68	37.7	852.24	19.2	
801.95	Cs-134	2.062 y	8.73	604.71	97.5	795.87	85.3	
802.11	Te-129	1.16 h	0.191	459.52	7.69	487.31	1.42	
802.50	Te-129	1.16 h	(S)	459.52	7.69	487.31	1.42	
802.84	Ge-77	11.3 h	0.0264	264.42	50.9	211.01	29.1	
802.95	Te-129m	33.6 d	(S)	695.84	2.99	729.53	0.696	
803.10	Po-210	* 138.4 d	0.00107					
804.35	Mo-101	14.6 m	0.996	191.94	18.7	590.93	16.3	
804.57	Zr-97	16.9 h	0.649	507.7	5.05	1147.94	2.64	
804.61	Te-129	1.16 h	0.0216	459.52	7.69	487.31	1.42	
804.85	Th-233	22.3 m	0.031	108.4	0.301	459.32	1.39	
805.99	Pt-191	2.9 d	0.00375	538.91	13.7	409.48	8	
806.19	Bi-214	19.9 m	1.2	609.29	44.9	1764.5	15.8	
806.29	Th-233	22.3 m	0.013	108.4	0.301	459.32	1.39	
807.82	Pm-151	1.1833 d	0.482	340.05	22.4	167.72	7.83	
807.85	Ca-47	4.536 d	6.88	1297.06	74.9	489.21	6.74	
808.07	Pm-149	2.2117 d	0.0137	286.03	2.85	859.42	0.0936	
809.76	I-132	2.284 h	2.85	667.73	98.6	772.68	76.2	
809.80	As-76	1.097 d	0.017	559.1	45			
809.88	Pa-234m	1.17 m	0.458	1001.01	0.559	766.39	0.225	
810.23	Ga-72	14.1 h	2	834.09	95.6	2201.7	25.8	
810.32	Ge-77	11.3 h	2.14	264.42	50.9	211.01	29.1	
810.45	Eu-152	13.33 y	0.333	121.78	28.3	344.29	26	
810.79	Co-58	* 70.916 d	99.4	863.96	0.72	1674.75	0.558	
810.96	Pm-149	2.2117 d	(S)	286.03	2.85	859.42	0.0936	
811.52	Th-233	22.3 m	0.00779	108.4	0.301	459.32	1.39	
812.27	I-132	2.284 h	5.62	667.73	98.6	772.68	76.2	
812.40	Sb-129	* 4.4 h	42.9	914.3	20	544.25	17.9	
813.32	Ge-77	11.3 h	0.125	264.42	50.9	211.01	29.1	
814.08	Rb-88	17.8 m	(E)	1836.08	21.4	898.04	14.1	
814.08	Y-88	106.61 d	(E)	1836.08	99.3	898.04	92.6	
814.82	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
814.85	Bi-214	19.9 m	0.044	609.29	44.9	1764.5	15.8	

815.58	Eu-154	8.8 y	0.463	123.1	40.4	1274.54	35.4
815.61	Th-233	22.3 m	0.0279	108.4	0.301	459.32	1.39
815.78	La-140	1.678 d	23.5	1596.54	95.3	487.02	45.9
816.40	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
816.54	W-187	23.9 h	0.00951	685.74	26.4	479.53	21
816.60	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1
816.81	Ac-228	6.1 h	0.143	911	25	968.79	15
816.97	Te-129m	33.6 d	0.0908	695.84	2.99	729.53	0.696
816.99	Th-233	22.3 m	0.016	108.4	0.301	459.32	1.39
817.63	Pm-151	1.1833 d	0.167	340.05	22.4	167.72	7.83
817.66	Pm-151	1.1833 d	0.0896	340.05	22.4	167.72	7.83
818.03	Ag-110m	249.76 d	7.3	657.76	94.6	884.68	72.6
818.73	In-116m	54.15 m	11.4	1293.59	85.1	1097.29	56.2
820.51	Ac-228	6.1 h	(S)	911	25	968.79	15
821.19	Bi-214	19.9 m	0.146	609.29	44.9	1764.5	15.8
821.50	Co-60	5.271 y	(E)	1332.5	100	1173.24	99.9
822.37	Sn-125	9.64 d	3.99	1067.03	9.03	1089.17	4.28
822.39	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
822.50	Tc-100	15.8 s	0.0925	539.59	7	590.81	5.7
822.78	Te-131m	* 1.25 d	6.38	773.68	37.7	852.24	19.2
822.98	Mo-99	2.7477 d	0.132	739.5	12	181.07	6.07
823.18	Ge-77	11.3 h	0.567	264.42	50.9	211.01	29.1
824.39	Re-188	16.98 h	0.012	155.06	14.9	633.08	1.25
824.71	Ac-228	6.1 h	0.06	911	25	968.79	15
825.33	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
825.44	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
825.59	Ac-228	6.1 h	(S)	911	25	968.79	15
825.85	Ge-77	11.3 h	0.0408	264.42	50.9	211.01	29.1
826.36	Co-60m	10.47 m	0.00579	1332.5	0.25		
826.39	Bi-214	19.9 m	0.0934	609.29	44.9	1764.5	15.8
827.80	Br-82	1.4708 d	23.7	776.5	83.2	554.3	70.4
828.34	Se-81	* 18.5 m	0.325	275.99	0.869	290.12	0.765
828.71	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
829.10	Ac-228	6.1 h	(S)	911	25	968.79	15
829.51	Re-188	16.98 h	0.408	155.06	14.9	633.08	1.25
829.84	Zr-97	16.9 h	0.222	507.7	5.05	1147.94	2.64
829.90	Te-129	1.16 h	0.00638	459.52	7.69	487.31	1.42
830.49	Ac-228	6.1 h	0.675	911	25	968.79	15
830.63	Pm-149	2.2117 d	0.0275	286.03	2.85	859.42	0.0936
831.15	Mg-28	20.9 h	(E)	1342.15	54.1	941.56	36.2
831.53	Ba-131	11.5 d	0.218	496.26	43.7	123.78	29.1
831.70	Ac-228	6.1 h	0.0426	911	25	968.79	15
831.79	Pb-211	* 36.1 m	3.5	404.8	3.98	426.99	1.75
831.82	Cd-117	2.49 h	2.97	273.35	27.9	1303.26	18.4
833.23	Te-129	1.16 h	0.0454	459.52	7.69	487.31	1.42
833.52	Pm-149	2.2117 d	0.0275	286.03	2.85	859.42	0.0936
833.58	Cu-66	5.1 m	0.16	1039.35	7.4		
834.09	Ga-72	* 14.1 h	95.6	2201.7	25.8	630.01	24.9
834.83	Mn-54	* 312.2 d	100				
834.86	Kr-88	2.84 h	13	196.34	26	1529.75	10.9
835.47	Pt-199	30.8 m	0.0206	542.96	14.7	493.74	5.73
835.49	Ac-228	6.1 h	1.5	911	25	968.79	15
835.50	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1
835.72	Pd-111	23.4 m	0.268	579.97	0.836	1458.85	0.561
836.60	Se-83	* 22.5 m	15.9	356.71	68.6	510.04	44.2
836.82	I-135	6.55 h	6.66	1260.42	28.5	1131.52	22.5
839.08	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8
839.10	Pb-214	27 m	0.65	351.92	37	295.2	19.1
840.21	Cd-117	2.49 h	0.809	273.35	27.9	1303.26	18.4
840.50	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
840.50	Ac-228	6.1 h	0.939	911	25	968.79	15
840.90	Nd-151	12.44 m	1.06	116.71	46.7	255.58	16.7
840.93	Sn-125m	9.52 m	0.0679	332.04	96.9	1403.68	0.699

841.58	Eu-152		13.33 y	0.165	121.78	28.3	344.29	26	
841.58	Eu-152m1	*	9.32 h	14.5	963.36	11.9	121.78	7.82	
842.01	Te-131		25 m	0.2	149.72	68.3	452.33	18.1	
842.04	Pt-199		30.8 m	0.0191	542.96	14.7	493.74	5.73	
843.17	Ge-77		11.3 h	0.199	264.42	50.9	211.01	29.1	
843.76	Mg-27		9.462 m	72.9	1014.43	29.1	170.67	0.788	
844.76	Te-129m		33.6 d	0.0341	695.84	2.99	729.53	0.696	
844.79	Te-131m		1.25 d	0.175	773.68	37.7	852.24	19.2	
845.42	Eu-154		8.8 y	0.55	123.1	40.4	1274.54	35.4	
845.82	Eu-154		8.8 y	(S)	123.1	40.4	1274.54	35.4	
846.29	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2	
846.45	Eu-154		8.8 y	(S)	123.1	40.4	1274.54	35.4	
846.76	Co-56		77.27 d	99.933	1238.27	66.07	2598.437	16.96	
846.81	Mn-56	*	2.5785 h	98.9	1810.77	27.2	2113.15	14.2	
846.93	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1	
847.06	I-134	*	52.6 m	95.3	884.13	64.9	1072.57	15	
848.59	Pm-151		1.1833 d	0.268	340.05	22.4	167.72	7.83	
848.87	Os-193		1.271 d	0.00434	138.91	4.26	460.5	3.95	
849.05	Te-131m		1.25 d	0.019	773.68	37.7	852.24	19.2	
849.52	Th-233		22.3 m	0.0047	108.4	0.301	459.32	1.39	
850.64	Y-88		106.61 d	0.0655	1836.08	99.3	898.04	92.6	
850.68	Eu-154		8.8 y	0.229	123.1	40.4	1274.54	35.4	
851.30	Ac-228		6.1 h	(S)	911	25	968.79	15	
852.09	Te-131m		1.25 d	0.381	773.68	37.7	852.24	19.2	
852.24	Te-131		25 m	0.0423	149.72	68.3	452.33	18.1	
852.24	Te-131m	*	1.25 d	19.2	773.68	37.7	793.76	13.1	
852.81	Ni-65		2.52 h	0.0751	1481.9	23.5	1115.52	14.7	
854.79	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2	
854.95	Zr-97		16.9 h	0.333	507.7	5.05	1147.94	2.64	
855.80	Ac-228		6.1 h	(S)	911	25	968.79	15	
855.92	Ca-49		8.716 m	0.129	3084.54	92.1	1409.02	0.625	
856.06	Te-131		25 m	0.128	149.72	68.3	452.33	18.1	
856.06	Te-131m		1.25 d	0.409	773.68	37.7	852.24	19.2	
856.26	I-133		20.8 h	1.22	529.85	86.3	875.31	4.46	
857.31	I-134		52.6 m	6.95	847.06	95.3	884.13	64.9	
857.57	Ge-77		11.3 h	0.0291	264.42	50.9	211.01	29.1	
857.60	Na-24		14.9 h	(E)	1368.6	100	2753.99	99.9	
859.42	Pm-149		2.2117 d	0.0936	286.03	2.85	591.08	0.0625	
860.41	Tl-208	*	5.053 m	14	2614.59	98.6	583.1	84.1	Th daughter
860.43	Cd-117m		3.36 h	7.88	1065.98	30	1997.31	26.2	
861.15	Ga-72		14.1 h	0.913	834.09	95.6	2201.7	25.8	
861.79	Mg-28		20.9 h	(E)	1342.15	54.1	941.56	36.2	
862.84	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2	
863.31	I-132		2.284 h	0.591	667.73	98.6	772.68	76.2	
863.59	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2	
863.91	Te-133m		55.4 m	18.3	912.58	62.9	647.4	21.4	
863.96	Co-58		70.916 d	0.72	810.79	99.4	1674.75	0.558	
864.62	W-187		23.9 h	0.325	685.74	26.4	479.53	21	
864.86	Te-131m		1.25 d	0.18	773.68	37.7	852.24	19.2	
866.70	Bi-214		19.9 m	(E)	609.29	44.9	1764.5	15.8	
866.75	Se-83		22.5 m	8.84	356.71	68.6	510.04	44.2	
867.38	Eu-152		13.33 y	4.2	121.78	28.3	344.29	26	
867.67	As-76		1.097 d	0.132	559.08	45	657.06	6.16	
867.82	La-140		1.678 d	5.58	1596.54	95.3	487.02	45.9	
868.70	Br-82		1.4708 d	(S)	776.5	83.2	554.3	70.4	
870.09	Eu-152m1		9.32 h	0.134	841.58	14.5	963.36	11.9	
871.10	Nb-94m	*	6.26 m	0.5	702.63	0.00314			
871.14	Mo-101		14.6 m	1.81	191.94	18.7	590.93	16.3	
871.73	Cs-138		32.2 m	5.12	1435.8	76.2	462.78	30.8	
871.98	Tb-160		72.3 d	0.208	879.36	29.8	298.58	26.8	
872.32	Te-131m		1.25 d	0.0957	773.68	37.7	852.24	19.2	
872.84	Pm-151		1.1833 d	(S)	340.05	22.4	167.72	7.83	
873.23	Eu-154		8.8 y	11.4	123.1	40.4	1274.54	35.4	

873.30	Ac-228	6.1 h	(S)	911	25	968.79	15	
873.74	Zn-71m	3.94 h	(S)	386.38	93	487.36	62.3	
873.90	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
874.27	Os-193	1.271 d	0.018	138.91	4.26	460.5	3.95	
874.60	Ac-228	6.1 h	0.195	911	25	968.79	15	
874.81	Os-185	93.6 d	6.61	646.11	80.9	880.26	5	
875.15	Ge-77	11.3 h	0.74	264.42	50.9	211.01	29.1	
875.31	I-133	20.8 h	4.46	529.85	86.3	1298.21	2.33	
875.75	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
875.86	Sr-93	7.4 m	23.9	590.2	66.5	888.18	21.6	
875.86	Ru-105	4.44 h	2.47	724.27	46.6	469.35	17.2	
877.22	I-132	2.284 h	1.08	667.73	98.6	772.68	76.2	
877.43	Mo-101	14.6 m	3.39	191.94	18.7	590.93	16.3	
877.51	Pm-151	1.1833 d	0.0917	340.05	22.4	167.72	7.83	
877.65	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
877.78	Ru-105	4.44 h	0.466	724.27	46.6	469.35	17.2	
878.52	Ga-72	14.1 h	0.072	834.09	95.6	2201.7	25.8	
879.36	Tb-160	*	72.3 d	29.8	298.58	26.8	966.15	25
879.48	W-187	23.9 h	0.137	685.74	26.4	479.53	21	
879.67	Sr-91	9.52 h	0.187	1024.28	33.3	749.72	23.5	
879.90	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4	
880.26	Os-185	93.6 d	5	646.11	80.9	874.81	6.61	
880.41	Ce-143	1.375 d	0.924	293.28	42	664.58	5.25	
880.54	Eu-154	8.8 y	0.0629	123.1	40.4	1274.54	35.4	
880.72	Cd-117	2.49 h	5.91	273.35	27.9	1303.26	18.4	
881.07	Th-233	22.3 m	0.00779	108.4	0.301	459.32	1.39	
881.94	Te-131m	1.25 d	0.0324	773.68	37.7	852.24	19.2	
882.21	As-76	1.097 d	0.0558	559.08	45	657.06	6.16	
883.52	Mo-101	14.6 m	0.695	191.94	18.7	590.93	16.3	
883.71	Pm-151	1.1833 d	0.0479	340.05	22.4	167.72	7.83	
883.72	Se-83	22.5 m	7.75	356.71	68.6	510.04	44.2	
884.13	I-134	*	52.6 m	64.9	847.06	95.3	1072.57	15
884.54	Ir-192	73.831 d	0.283	316.51	83.1	468.07	47.6	
884.55	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
884.68	Ag-110m	249.76 d	72.6	657.76	94.6	937.49	34.3	
884.68	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	
886.31	Ac-228	6.1 h	0.0345	911	25	968.79	15	
888.18	Sr-93	7.4 m	21.6	590.2	66.5	875.86	23.9	
889.11	Ge-77	11.3 h	0.0133	264.42	50.9	211.01	29.1	
889.25	Sc-46	*	83.83 d	100	1120.51	100	2009.76	(S)
889.45	I-132	2.284 h	0.0395	667.73	98.6	772.68	76.2	
889.61	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
889.95	Ir-194	19.15 h	0.0504	328.46	13	293.55	2.52	
890.07	Th-233	22.3 m	0.139	108.4	0.301	459.32	1.39	
891.11	Pt-199	30.8 m	0.0237	542.96	14.7	493.74	5.73	
891.26	Os-193	1.271 d	0.00283	138.91	4.26	460.5	3.95	
892.78	Eu-154	8.8 y	0.462	123.1	40.4	1274.54	35.4	
893.30	Sn-125	9.64 d	0.27	1067.03	9.03	1089.17	4.28	
893.30	Bi-212	1.009 h	0.379	727.29	6.7	1620.59	1.52	
894.21	Ac-228	6.1 h	0.206	911	25	968.79	15	
894.34	Ga-72	14.1 h	9.88	834.09	95.6	2201.7	25.8	
894.93	La-142	1.542 h	8.49	641.25	47.4	1901.44	7.87	
896.47	Ge-77	11.3 h	0.115	264.42	50.9	211.01	29.1	
897.00	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
897.79	Tl-207	*	4.77 m	0.237	328.15	0.00143	569.64	0.00102
898.04	Rb-88	*	17.8 m	14.1	1836.08	21.4	2677.92	1.95
898.04	Y-88	*	106.61 d	92.6	1836.08	99.3	2734.12	0.666
898.26	Th-233	22.3 m	0.00329	108.4	0.301	459.32	1.39	
898.58	Te-131	25 m	0.134	149.72	68.3	452.33	18.1	
899.04	Yb-177	1.9 h	0.644	150.4	20	1080.24	5.5	
899.20	Pb-204m	*	1.12 h	99	911.6	94	374.7	89
899.21	K-42	12.36 h	0.0534	1524.58	18.7	312.35	0.35	
899.67	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	

899.92	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
900.65	Ge-77	11.3 h	0.113	264.42	50.9	211.01	29.1	
901.01	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
901.51	Ac-228	6.1 h	(S)	911	25	968.79	15	
902.50	Pt-199	30.8 m	0.0104	542.96	14.7	493.74	5.73	
903.62	Mo-101	14.6 m	0.2	191.94	18.7	590.93	16.3	
903.89	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
904.00	Ac-228	6.1 h	0.683	911	25	968.79	15	
904.10	Eu-154	8.8 y	0.823	123.1	40.4	1274.54	35.4	
904.33	Bi-214	19.9 m	0.106	609.29	44.9	1764.5	15.8	
905.09	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
906.95	Ge-77	11.3 h	0.9	264.42	50.9	211.01	29.1	
907.68	Ru-105	4.44 h	0.523	724.27	46.6	469.35	17.2	
907.83	Er-171	7.52 h	0.634	308.33	64.4	295.67	28.9	
908.55	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
909.15	Y-89m	*	16.1 s	99.1				
909.60	Zr-97	16.9 h	(S)	507.7	5.05	1147.94	2.64	
909.99	Te-131m	1.25 d	2.91	773.68	37.7	852.24	19.2	
910.35	Zn-71	*	2.45 m	7.83	511.65	30.2	390.03	3.83
910.41	Ac-228	6.1 h	(S)	911	25	968.79	15	
910.51	I-132	2.284 h	0.917	667.73	98.6	772.68	76.2	
911.20	Ac-228	*	6.1 h	25	968.79	15	338.31	12.3
911.60	Pb-204m	1.12 h	94	899.2	99	374.7	89	Th daughter
912.58	Te-133m	*	55.4 m	62.9	647.4	21.4	863.91	18.3
913.13	Er-171	7.52 h	0.077	308.33	64.4	295.67	28.9	
913.79	Ge-77	11.3 h	0.349	264.42	50.9	211.01	29.1	
914.00	Ba-131	11.5 d	0.0437	496.26	43.7	123.78	29.1	
914.22	Nd-151	12.44 m	1.2	116.71	46.7	255.58	16.7	
914.30	Sb-129	4.4 h	20	812.4	42.9	544.25	17.9	
914.70	Te-133m	55.4 m	12	912.58	62.9	647.4	21.4	
915.44	Sn-125	9.64 d	3.85	1067.03	9.03	1089.17	4.28	
917.35	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
918.60	Y-94	*	18.7 m	55.9				
919.39	Eu-152	13.33 y	0.438	121.78	28.3	344.29	26	
919.55	La-140	1.678 d	2.68	1596.54	95.3	487.02	45.9	
920.56	Te-131m	1.25 d	1.18	773.68	37.7	852.24	19.2	
920.57	Mo-99	2.7477 d	(S)	739.5	12	181.07	6.07	
920.92	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6	
921.01	Ge-77	11.3 h	0.0674	264.42	50.9	211.01	29.1	
921.50	Ac-228	6.1 h	(S)	911	25	968.79	15	
923.04	Ge-77	11.3 h	0.653	264.42	50.9	211.01	29.1	
923.08	V-52	3.75 m	(E)	1434.08	100	1333.65	0.587	
923.35	Te-131m	1.25 d	0.131	773.68	37.7	852.24	19.2	
923.80	Ba-131	11.5 d	0.696	496.26	43.7	123.78	29.1	
924.56	Eu-154	8.8 y	0.0625	123.1	40.4	1274.54	35.4	
924.66	Ga-72	14.1 h	0.142	834.09	95.6	2201.7	25.8	
924.85	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
925.18	La-140	1.678 d	7.03	1596.54	95.3	487.02	45.9	
925.34	Ge-77	11.3 h	0.679	264.42	50.9	211.01	29.1	
925.77	Sr-91	9.52 h	3.83	1024.28	33.3	749.72	23.5	
926.05	Ge-77	11.3 h	0.0607	264.42	50.9	211.01	29.1	
926.31	Eu-152	13.33 y	0.264	121.78	28.3	344.29	26	
927.78	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
927.82	I-132	2.284 h	0.444	667.73	98.6	772.68	76.2	
928.00	Ta-182	115 d	0.607	1121.3	34.7	1221.41	27.2	
928.64	Ti-51	5.76 m	6.87	320.08	93	608.56	1.17	
928.66	Tc-101	14.2 m	0.127	306.83	88	545.05	5.99	
928.72	Ge-77	11.3 h	0.988	264.42	50.9	211.01	29.1	
930.48	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
930.59	Eu-152	13.33 y	0.0753	121.78	28.3	344.29	26	
931.11	Ac-228	6.1 h	(S)	911	25	968.79	15	
931.36	Re-188	16.98 h	0.562	155.06	14.9	633.08	1.25	
932.17	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	

933.35	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
933.85	Cd-115m	44.6 d	2	1290.6	0.89		
934.07	Bi-214	19.9 m	3.16	609.29	44.9	1764.5	15.8
934.30	Mo-101	14.6 m	3.39	191.94	18.7	590.93	16.3
934.48	Te-131	25 m	0.875	149.72	68.3	452.33	18.1
934.53	Y-92	* 3.54 h	13.8	1405.4	4.78	561.11	2.41
935.20	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
935.42	Pt-191	2.9 d	0.0119	538.91	13.7	409.48	8
935.53	V-52	3.75 m	0.0609	1434.08	100	1333.65	0.587
935.89	Ac-228	6.1 h	0.0128	911	25	968.79	15
936.57	La-140	1.678 d	0.0569	1596.54	95.3	487.02	45.9
937.40	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
937.49	Ag-110m	* 249.76 d	34.3	657.76	94.6	884.68	72.6
937.79	Ce-143	1.375 d	0.0335	293.28	42	664.58	5.25
938.27	Ga-72	14.1 h	0.0767	834.09	95.6	2201.7	25.8
938.71	Ir-194	19.15 h	0.595	328.46	13	293.55	2.52
939.20	Ge-77	11.3 h	0.268	264.42	50.9	211.01	29.1
939.58	Ga-72	14.1 h	0.258	834.09	95.6	2201.7	25.8
941.34	Te-131m	1.25 d	0.77	773.68	37.7	852.24	19.2
941.56	Mg-28	20.9 h	36.2	1342.15	54.1	400.59	36
941.63	Yb-177	1.9 h	1.01	150.4	20	1080.24	5.5
941.90	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39
944.10	Ac-228	6.1 h	0.108	911	25	968.79	15
944.85	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
945.65	Cd-117	2.49 h	1.54	273.35	27.9	1303.26	18.4
945.70	Ge-77	11.3 h	0.0291	264.42	50.9	211.01	29.1
946.04	Ge-77	11.3 h	0.0293	264.42	50.9	211.01	29.1
947.18	Y-93	10.25 h	1.95	266.91	6.79		
947.80	I-134	52.6 m	4	847.06	95.3	884.13	64.9
947.90	Ac-228	6.1 h	0.074	911	25	968.79	15
948.04	I-132	2.284 h	0.079	667.73	98.6	772.68	76.2
948.08	Th-233	22.3 m	0.0075	108.4	0.301	459.32	1.39
948.54	Te-131	25 m	2.25	149.72	68.3	452.33	18.1
948.58	Pm-151	1.1833 d	0.32	340.05	22.4	167.72	7.83
950.85	La-140	1.678 d	0.541	1596.54	95.3	487.02	45.9
951.39	Te-131	25 m	0.331	149.72	68.3	452.33	18.1
951.90	Br-82	1.4708 d	0.387	776.5	83.2	554.3	70.4
952.21	Bi-212	1.009 h	0.18	727.29	6.7	1620.59	1.52
953.40	Sr-92	2.71 h	3.6	1384.06	90	430.66	3.33
953.40	Pm-151	1.1833 d	0.0795	340.05	22.4	167.72	7.83
954.13	Y-95	* 10.3 m	18	1324.13	5.25	632.14	0.322
954.31	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
954.58	Ba-131	11.5 d	0.0337	496.26	43.7	123.78	29.1
954.62	I-132	* 2.284 h	18.1	667.73	98.6	772.68	76.2
955.94	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
957.65	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
958.03	Zr-97	16.9 h	(S)	507.7	5.05	1147.94	2.64
958.20	Nd-151	12.44 m	0.566	116.71	46.7	255.58	16.7
958.21	Ac-228	6.1 h	0.165	911	25	968.79	15
959.19	Ge-77	11.3 h	0.0669	264.42	50.9	211.01	29.1
959.73	Ta-182	115 d	0.364	1121.3	34.7	1221.41	27.2
962.30	Tb-160	72.3 d	9.83	879.36	29.8	298.58	26.8
963.36	Eu-152m1	* 9.32 h	11.9	841.58	14.5	121.78	7.82
964.11	Eu-152	13.33 y	14.5	121.78	28.3	344.29	26
964.60	Ac-228	6.1 h	4.07	911	25	968.79	15
964.74	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
964.90	Zn-71	2.45 m	0.758	511.65	30.2	910.35	7.83
964.90	Zn-71m	3.94 h	4.34	386.38	93	487.36	62.3
966.10	Sb-129	4.4 h	7.7	812.4	42.9	914.3	20
966.15	Tb-160	72.3 d	25	879.36	29.8	298.58	26.8
966.62	Ge-77	11.3 h	0.0356	264.42	50.9	211.01	29.1
966.68	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
966.69	Ac-228	6.1 h	0.762	911	25	968.79	15

968.19	Sb-124	60.2 d	1.87	602.73	97.7	1690.97	47	
968.20	Ac-228	6.1 h	(S)	911	25	968.79	15	
968.20	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
968.29	Pt-199	30.8 m	1.1	542.96	14.7	493.74	5.73	
968.86	Ba-131	11.5 d	0.0337	496.26	43.7	123.78	29.1	
968.97	Ac-228	6.1 h	15	911	25	338.31	12.3	Th daughter
969.00	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
969.46	Ru-105	4.44 h	2.08	724.27	46.6	469.35	17.2	
969.49	I-128	24.99 m	0.407	442.92	16.8	526.57	1.57	
970.29	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
970.32	Ge-77	11.3 h	0.0254	264.42	50.9	211.01	29.1	
970.39	Eu-152m1	9.32 h	0.604	841.58	14.5	963.36	11.9	
970.67	Ga-72	14.1 h	1.1	834.09	95.6	2201.7	25.8	
971.44	Zr-97	16.9 h	0.287	507.7	5.05	1147.94	2.64	
972.20	Mg-28	20.9 h	(S)	1342.15	54.1	941.56	36.2	
972.54	In-116m	54.15 m	0.454	1293.59	85.1	1097.29	56.2	
974.28	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
974.31	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
974.49	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
974.71	I-134	52.6 m	4.76	847.06	95.3	884.13	64.9	
976.72	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
978.08	Ge-77	11.3 h	(E)	264.42	50.9	211.01	29.1	
978.12	Th-233	22.3 m	0.0075	108.4	0.301	459.32	1.39	
978.19	Te-133m	55.4 m	5.9	912.58	62.9	647.4	21.4	
979.29	Ac-228	6.1 h	(S)	911	25	968.79	15	
980.91	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
980.95	As-76	1.097 d	0.0423	559.08	45	657.06	6.16	
981.60	Ac-228	6.1 h	(S)	911	25	968.79	15	
982.16	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
982.21	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
982.24	Te-129	1.16 h	0.016	459.52	7.69	487.31	1.42	
983.41	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
983.50	Sc-48	* 1.821 d	100	1312.05	100	1037.5	97.5	
984.67	I-132	2.284 h	0.562	667.73	98.6	772.68	76.2	
984.79	Th-233	22.3 m	0.00139	108.4	0.301	459.32	1.39	
985.73	Ge-77	11.3 h	0.0933	264.42	50.9	211.01	29.1	
985.81	Kr-88	2.84 h	1.32	196.34	26	834.86	13	
987.48	Ca-49	8.716 m	0.0763	3084.54	92.1	1409.02	0.625	
987.65	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
987.80	Ac-228	6.1 h	0.162	911	25	968.79	15	
987.84	Te-131m	1.25 d	0.0823	773.68	37.7	852.24	19.2	
988.82	Zn-71m	3.94 h	1.2	386.38	93	487.36	62.3	
989.16	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
992.78	Pt-199	30.8 m	0.0133	542.96	14.7	493.74	5.73	
995.09	Dy-165	2.334 h	0.0545	94.7	3.58	361.67	0.841	
995.27	Te-131m	1.25 d	0.0877	773.68	37.7	852.24	19.2	
995.84	Eu-152m1	9.32 h	0.0928	841.58	14.5	963.36	11.9	
996.09	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
996.33	Eu-154	8.8 y	10.3	123.1	40.4	1274.54	35.4	
996.49	Ge-77	11.3 h	0.0996	264.42	50.9	211.01	29.1	
996.71	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
997.24	Te-131	25 m	3.27	149.72	68.3	452.33	18.1	
998.00	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
998.24	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
998.26	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
999.24	Te-131m	1.25 d	0.12	773.68	37.7	852.24	19.2	
999.93	Ga-72	14.1 h	0.799	834.09	95.6	2201.7	25.8	
1001.01	Pa-234m	* 1.17 m	0.559	809.88	0.458	766.39	0.225	U-238 daughter
1001.71	Ta-182	115 d	2	1121.3	34.7	1221.41	27.2	
1001.88	I-132	2.284 h	0.0395	667.73	98.6	772.68	76.2	
1002.06	Ce-143	1.375 d	(S)	293.28	42	664.58	5.25	
1002.41	Ac-228	6.1 h	0.074	911	25	968.79	15	
1002.87	Tb-160	72.3 d	1.02	879.36	29.8	298.58	26.8	

1003.53	Te-129m	33.6 d	0.000701	695.84	2.99	729.53	0.696	
1004.77	Eu-154	8.8 y	17.9	123.1	40.4	1274.54	35.4	
1005.04	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1005.26	Eu-152	13.33 y	0.658	121.78	28.3	344.29	26	
1005.78	Te-131m	1.25 d	0.0478	773.68	37.7	852.24	19.2	
1006.67	Zn-71m	3.94 h	0.744	386.38	93	487.36	62.3	
1007.40	Br-82	1.4708 d	1.31	776.5	83.2	554.3	70.4	
1007.96	Te-131	25 m	0.774	149.72	68.3	452.33	18.1	
1008.80	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
1009.77	Cs-138	32.2 m	29.8	1435.8	76.2	462.78	30.8	
1010.50	Ac-228	6.1 h	(S)	911	25	968.79	15	
1010.90	I-132	2.284 h	0.079	667.73	98.6	772.68	76.2	
1011.47	La-142	1.542 h	3.93	641.25	47.4	894.93	8.49	
1011.56	Zn-71m	3.94 h	0.679	386.38	93	487.36	62.3	
1012.03	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
1012.53	Mo-101	*	14.6 m	12.8	191.94	18.7	590.93	16.3
1013.58	K-42	12.36 h	(E)	1524.58	18.7	312.35	0.35	
1014.35	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1014.43	Mg-27	*	9.462 m	29.1	843.76	72.9	170.67	0.788
1014.61	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1016.00	I-132	2.284 h	0.0494	667.73	98.6	772.68	76.2	
1016.00	Ac-228	6.1 h	0.12	911	25	968.79	15	
1016.58	Nd-151	12.44 m	2.91	116.71	46.7	255.58	16.7	
1016.83	Pr-146	24.15 m	1.22	453.89	47.9	1524.78	15.6	
1017.34	Sn-125	9.64 d	0.327	1067.03	9.03	1089.17	4.28	
1017.34	Sn-125m	9.52 m	0.098	332.04	96.9	1403.68	0.699	
1017.49	Ru-105	4.44 h	0.318	724.27	46.6	469.35	17.2	
1018.70	Th-233	22.3 m	(S)	108.4	0.301	459.32	1.39	
1018.82	Mo-101	14.6 m	0.638	191.94	18.7	590.93	16.3	
1019.54	Te-129	1.16 h	0.00222	459.52	7.69	487.31	1.42	
1021.19	Zr-97	16.9 h	1.35	507.7	5.05	1147.94	2.64	
1022.00	Na-22	2.602 y	(S)	1274.53	99.8	1785.53	(S)	
1022.00	Na-24	14.9 h	(S)	1368.6	100	2753.99	99.9	
1022.00	K-42	12.36 h	(S)	1524.58	18.7	312.35	0.35	
1022.00	Co-58	70.916 d	(S)	810.79	99.4	863.96	0.72	
1022.00	Cu-64	12.701 h	(S)	1345.78	0.483			
1022.00	Zn-65	244.1 d	(S)	1115.52	50.8			
1022.00	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
1022.34	Te-129m	33.6 d	0.0174	695.84	2.99	729.53	0.696	
1022.88	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
1023.41	Te-131m	1.25 d	0.0609	773.68	37.7	852.24	19.2	
1024.28	Sr-91	*	9.52 h	33.3	749.72	23.5	653	8.01
1024.71	Nb-97	1.202 h	1.08	658.22	98.3	1268.86	0.157	
1025.21	Tc-100	15.8 s	0.0314	539.59	7	590.81	5.7	
1025.80	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1025.81	Tc-100	15.8 s	(E)	539.59	7	590.81	5.7	
1028.00	Te-131m	1.25 d	0.00807	773.68	37.7	852.24	19.2	
1028.04	Yb-177	1.9 h	0.633	150.4	20	1080.24	5.5	
1029.05	Cd-117m	3.36 h	11.6	1065.98	30	1997.31	26.2	
1029.70	Sb-129	4.4 h	1.26	812.4	42.9	914.3	20	
1031.10	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1032.08	Rb-89	*	15.2 m	57.9	1248.26	42.5	657.88	9.98
1032.21	Bi-214	19.9 m	0.084	609.29	44.9	1764.5	15.8	
1033.11	Ac-228	6.1 h	0.182	911	25	968.79	15	
1035.06	I-132	2.284 h	0.573	667.73	98.6	772.68	76.2	
1035.48	Te-131m	1.25 d	0.0966	773.68	37.7	852.24	19.2	
1037.50	Sc-48	*	1.821 d	97.5	983.5	100	1312.05	100
1037.83	Co-56	77.27 d	14.13	846.76	99.93	1238.27	66.07	
1037.92	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1038.59	Cs-134	2.062 y	1	604.71	97.5	795.87	85.3	
1038.75	I-135	6.55 h	7.92	1260.42	28.5	1131.52	22.5	
1039.33	Ga-70	*	21.15 m	0.676	176.28	0.299		
1039.35	Cu-66	*	5.1 m	7.4	833.58	0.16		

1039.69	Ac-228	6.1 h	0.116	911	25	968.79	15	
1040.13	I-134	52.6 m	1.9	847.06	95.3	884.13	64.9	
1041.17	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
1041.33	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1041.89	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1043.72	La-142	1.542 h	2.75	641.25	47.4	894.93	8.49	
1044.00	Br-82	1.4708 d	27.2	776.5	83.2	554.3	70.4	
1044.41	Ta-182	115 d	0.227	1121.3	34.7	1221.41	27.2	
1044.50	Pa-234m	1.17 m	(S)	1001.01	0.559	809.88	0.458	
1045.11	Sb-124	60.2 d	1.87	602.73	97.7	1690.97	47	
1045.65	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1046.85	Ba-131	11.5 d	0.199	496.26	43.7	123.78	29.1	
1046.92	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1047.36	Eu-154	8.8 y	0.134	123.1	40.4	1274.54	35.4	
1047.58	Ba-131	11.5 d	1.18	496.26	43.7	123.78	29.1	
1048.03	Nd-151	12.44 m	0.81	116.71	46.7	255.58	16.7	
1049.09	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
1050.00	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
1050.13	Te-129m	33.6 d	0.0177	695.84	2.99	729.53	0.696	
1050.47	I-132	2.284 h	0.0444	667.73	98.6	772.68	76.2	
1050.85	Ga-72	14.1 h	6.95	834.09	95.6	2201.7	25.8	
1051.70	Cd-117	2.49 h	3.79	273.35	27.9	1303.26	18.4	
1051.98	Bi-214	19.9 m	0.314	609.29	44.9	1764.5	15.8	
1052.28	I-133	20.8 h	0.551	529.85	86.3	875.31	4.46	
1052.83	Ge-77	11.3 h	0.0295	264.42	50.9	211.01	29.1	
1052.87	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1054.30	Ac-228	6.1 h	0.057	911	25	968.79	15	
1055.76	Dy-165	2.334 h	0.0312	94.7	3.58	361.67	0.841	
1058.72	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1059.44	Ce-143	1.375 d	(S)	293.28	42	664.58	5.25	
1059.71	Te-131m	1.25 d	1.37	773.68	37.7	852.24	19.2	
1061.54	Ir-192	73.831 d	0.0523	316.51	83.1	468.07	47.6	
1061.56	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
1061.65	Ge-77	11.3 h	0.141	264.42	50.9	211.01	29.1	
1063.66	Bi-207	31.55 y	74.5	569.7	97.74	1770.24	6.87	
1064.13	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
1065.00	Ac-228	6.1 h	0.256	911	25	968.79	15	
1065.98	Cd-117m	*	3.36 h	30	1997.31	26.2	1432.91	25
1067.03	Sn-125	*	9.64 d	9.03	1089.17	4.28	822.37	3.99
1068.29	Ac-228	6.1 h	(S)	911	25	968.79	15	
1068.79	Sb-124	60.2 d	(E)	602.73	97.7	1690.97	47	
1068.93	Sb-124	60.2 d	(E)	602.73	97.7	1690.97	47	
1069.01	Tb-160	72.3 d	0.0917	879.36	29.8	298.58	26.8	
1069.99	Bi-214	19.9 m	0.279	609.29	44.9	1764.5	15.8	
1070.28	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1070.88	Ho-166	1.117 d	(E)	1379.32	0.93	1581.88	0.181	
1072.33	Te-131m	1.25 d	0.0216	773.68	37.7	852.24	19.2	
1072.50	Br-82	1.4708 d	0.0686	776.5	83.2	554.3	70.4	
1072.57	I-134	*	52.6 m	15	847.06	95.3	884.13	64.9
1072.61	Pt-199	30.8 m	0.0178	542.96	14.7	493.74	5.73	
1073.71	Bi-212	1.009 h	0.0175	727.29	6.7	1620.59	1.52	
1074.74	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1076.69	Rb-86	*	18.66 d	8.77				
1077.74	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1078.45	Mg-28	20.9 h	(E)	1342.15	54.1	941.56	36.2	
1078.80	Bi-212	1.009 h	0.548	727.29	6.7	1620.59	1.52	
1079.03	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
1079.18	Pt-199	30.8 m	0.00888	542.96	14.7	493.74	5.73	
1079.62	Dy-165	*	2.334 h	0.0916	94.7	3.58	361.67	0.841
1080.07	Cs-134	2.062 y	(S)	604.71	97.5	795.87	85.3	
1080.24	Yb-177	1.9 h	5.5	150.4	20	121.62	3.41	
1080.67	Ge-77	11.3 h	0.227	264.42	50.9	211.01	29.1	
1081.20	Br-82	1.4708 d	0.587	776.5	83.2	554.3	70.4	

1083.78	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
1083.81	Te-129	1.16 h	0.492	459.52	7.69	487.31	1.42	
1085.04	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
1085.08	Ge-77	11.3 h	5.71	264.42	50.9	211.01	29.1	
1085.54	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
1085.89	Eu-152	13.33 y	9.92	121.78	28.3	344.29	26	
1087.00	I-132	2.284 h	0.0691	667.73	98.6	772.68	76.2	
1087.69	Au-198	2.6935 d	0.159	411.8	95.5	675.89	0.802	
1089.17	Sn-125	* 9.64 d	4.28	1067.03	9.03	822.37	3.99	
1089.71	Eu-152	13.33 y	1.7	121.78	28.3	344.29	26	
1091.06	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1091.15	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
1093.13	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1093.91	Tl-208	5.053 m	0.404	2614.59	98.6	583.1	84.1	
1095.80	Ac-228	6.1 h	0.558	911	25	968.79	15	
1096.55	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
1097.03	I-132	2.284 h	0.0345	667.73	98.6	772.68	76.2	
1097.29	In-116m	* 54.15 m	56.2	1293.59	85.1	416.92	30	
1098.23	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1098.26	Te-131	25 m	0.17	149.72	68.3	452.33	18.1	
1099.25	Fe-59	* 44.496 d	56.5	1291.6	43.2	192.35	3.08	
1101.00	Sb-124m1	1.55 m	0.5	602.73	25	645.86	25	
1101.53	I-135	6.55 h	1.6	1260.42	28.5	1131.52	22.5	
1102.60	Tb-160	72.3 d	0.529	879.36	29.8	298.58	26.8	
1103.09	Ce-143	1.375 d	0.364	293.28	42	664.58	5.25	
1103.94	Pt-199	30.8 m	0.0252	542.96	14.7	493.74	5.73	
1104.04	Ir-194	19.15 h	0.0258	328.46	13	293.55	2.52	
1104.16	Ge-77	11.3 h	0.032	264.42	50.9	211.01	29.1	
1104.20	Ac-228	6.1 h	(S)	911	25	968.79	15	
1104.57	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
1104.76	Bi-214	19.9 m	0.0798	609.29	44.9	1764.5	15.8	
1105.40	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1107.13	Nd-151	12.44 m	0.474	116.71	46.7	255.58	16.7	
1107.49	Zn-71m	3.94 h	0.744	386.38	93	487.36	62.3	
1107.65	Zn-71m	3.94 h	2.04	386.38	93	487.36	62.3	
1108.54	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1109.09	Pb-211	36.1 m	0.0959	404.8	3.98	831.79	3.5	
1109.19	Eu-152	13.33 y	0.183	121.78	28.3	344.29	26	
1110.71	Ac-228	6.1 h	0.45	911	25	968.79	15	
1110.90	Ac-228	6.1 h	(S)	911	25	968.79	15	
1111.60	Te-129	1.16 h	0.19	459.52	7.69	487.31	1.42	
1111.95	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1112.07	Eu-152	* 13.33 y	13.6	121.78	28.3	344.29	26	
1113.04	I-132	2.284 h	0.0591	667.73	98.6	772.68	76.2	
1113.43	Ta-182	115 d	0.437	1121.3	34.7	1221.41	27.2	
1114.04	Te-131m	1.25 d	0.0108	773.68	37.7	852.24	19.2	
1114.75	Ge-77	11.3 h	0.0975	264.42	50.9	211.01	29.1	
1115.11	Tb-160	72.3 d	1.53	879.36	29.8	298.58	26.8	
1115.52	Ni-65	2.52 h	14.7	1481.9	23.5	366.38	4.61	
1115.52	Zn-65	* 244.1 d	50.8	1022	(S)			
1115.92	Pd-111m	5.5 h	1.1	391.18	5.37	632.5	3.56	
1116.63	Cd-117	2.49 h	1.35	273.35	27.9	1303.26	18.4	
1116.68	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1117.22	Nb-97	1.202 h	0.0884	658.22	98.3	1024.71	1.08	
1117.43	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1118.29	Eu-154	8.8 y	0.104	123.1	40.4	1274.54	35.4	
1119.69	Yb-177	1.9 h	0.545	150.4	20	1080.24	5.5	
1120.07	Zn-71	2.45 m	2.18	511.65	30.2	910.35	7.83	
1120.24	Pd-111	23.4 m	0.134	579.97	0.836	1458.85	0.561	
1120.29	Bi-214	* 19.9 m	15.3	609.29	44.9	1764.5	15.8	Ra daughter
1120.51	Sc-46	* 83.83 d	100	889.25	100	2009.76	(S)	
1121.30	Ta-182	* 115 d	34.7	1221.41	27.2	1189.04	16.4	
1121.89	Ac-228	6.1 h	(S)	911	25	968.79	15	

1122.22	Nd-151	*	12.44 m	4.58	116.71	46.7	255.58	16.7
1122.34	As-76		1.097 d	(S)	559.08	45	657.06	6.16
1122.40	Ac-228		6.1 h	(S)	911	25	968.79	15
1122.43	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1122.79	Ac-228		6.1 h	0.0893	911	25	968.79	15
1122.84	Sr-93		7.4 m	3.91	590.2	66.5	875.86	23.9
1123.21	Eu-152		13.33 y	(S)	121.78	28.3	344.29	26
1123.96	I-135		6.55 h	3.6	1260.42	28.5	1131.52	22.5
1124.93	Ge-77		11.3 h	0.111	264.42	50.9	211.01	29.1
1125.48	Te-131m	*	1.25 d	11.2	773.68	37.7	852.24	19.2
1127.08	I-132		2.284 h	0.0512	667.73	98.6	772.68	76.2
1127.87	Eu-154		8.8 y	(S)	123.1	40.4	1274.54	35.4
1128.03	Te-131m		1.25 d	0.956	773.68	37.7	852.24	19.2
1128.51	Eu-154		8.8 y	0.266	123.1	40.4	1274.54	35.4
1128.61	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1129.92	As-76		1.097 d	0.125	559.08	45	657.06	6.16
1130.40	Tc-100		15.8 s	0.00119	539.59	7	590.81	5.7
1130.81	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2
1131.52	I-135		6.55 h	22.5	1260.42	28.5	1678.08	9.52
1131.59	Cl-38		37.24 m	(E)	2167.68	42	1642.59	31
1132.39	Re-188		16.98 h	0.088	155.06	14.9	633.08	1.25
1134.05	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1134.16	Te-131m		1.25 d	0.0146	773.68	37.7	852.24	19.2
1134.72	Ge-77		11.3 h	0.026	264.42	50.9	211.01	29.1
1135.60	Ac-228		6.1 h	0.032	911	25	968.79	15
1136.18	I-132		2.284 h	3.02	667.73	98.6	772.68	76.2
1136.24	I-134		52.6 m	9.16	847.06	95.3	884.13	64.9
1137.38	I-132		2.284 h	0.147	667.73	98.6	772.68	76.2
1140.59	Sb-122		2.7 d	0.75	564.37	70	692.89	3.81
1140.75	Eu-154		8.8 y	0.216	123.1	40.4	1274.54	35.4
1142.43	Sr-92		2.71 h	2.87	1384.06	90	953.4	3.6
1143.61	I-132		2.284 h	1.37	667.73	98.6	772.68	76.2
1144.20	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1144.90	Ca-49		8.716 m	0.111	3084.54	92.1	1409.02	0.625
1145.68	Cl-38		37.24 m	(E)	2167.68	42	1642.59	31
1146.96	Te-131		25 m	4.84	149.72	68.3	452.33	18.1
1147.94	Zr-97		16.9 h	2.64	507.7	5.05	355.47	2.27
1148.38	I-132		2.284 h	0.206	667.73	98.6	772.68	76.2
1148.60	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1148.81	Te-131m		1.25 d	1.49	773.68	37.7	852.24	19.2
1148.96	Te-131		25 m	0.0708	149.72	68.3	452.33	18.1
1148.96	Te-131m		1.25 d	0.258	773.68	37.7	852.24	19.2
1149.66	Yb-177		1.9 h	0.644	150.4	20	1080.24	5.5
1150.27	Bi-214		19.9 m	(E)	609.29	44.9	1764.5	15.8
1150.54	Re-188		16.98 h	(S)	155.06	14.9	633.08	1.25
1150.77	Ir-194		19.15 h	0.592	328.46	13	293.55	2.52
1150.89	Te-131m		1.25 d	0.613	773.68	37.7	852.24	19.2
1151.06	Re-188		16.98 h	0.0171	155.06	14.9	633.08	1.25
1151.82	Ge-77		11.3 h	0.185	264.42	50.9	211.01	29.1
1153.59	Ac-228		6.1 h	0.762	911	25	968.79	15
1153.94	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1155.21	Bi-214		19.9 m	1.67	609.29	44.9	1764.5	15.8
1155.45	Ge-77		11.3 h	0.0184	264.42	50.9	211.01	29.1
1157.10	Ac-228		6.1 h	(S)	911	25	968.79	15
1157.30	I-130		12.5 h	11.4	536.1			
1157.31	Ta-182		115 d	0.675	1121.3	34.7	1221.41	27.2
1158.82	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2
1158.85	Sc-48		1.821 d	(S)	983.5	100	1312.05	100
1159.10	Pt-199		30.8 m	0.00888	542.96	14.7	493.74	5.73
1160.34	Eu-154		8.8 y	0.0516	123.1	40.4	1274.54	35.4
1160.89	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1
1161.04	Mo-101		14.6 m	3.97	191.94	18.7	590.93	16.3
1163.31	Eu-152		13.33 y	(S)	121.78	28.3	344.29	26

1164.00	Ac-228	6.1 h	0.06	911	25	968.79	15
1165.07	Ge-77	11.3 h	0.0463	264.42	50.9	211.01	29.1
1165.45	Te-131m	1.25 d	0.132	773.68	37.7	852.24	19.2
1167.94	Cs-134	2.062 y	1.8	604.71	97.5	795.87	85.3
1168.50	Ac-228	6.1 h	(S)	911	25	968.79	15
1168.80	Ac-228	6.1 h	(S)	911	25	968.79	15
1169.86	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8
1170.63	Ba-131	11.5 d	0.00159	496.26	43.7	123.78	29.1
1171.00	Eu-152	13.33 y	0.0356	121.78	28.3	344.29	26
1171.37	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1172.93	Bi-214	19.9 m	0.0559	609.29	44.9	1764.5	15.8
1173.24	Co-60	* 5.271 y	99.9	1332.5	100	2505.74	0.000002
1173.26	I-132	2.284 h	1.09	667.73	98.6	772.68	76.2
1173.40	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4
1173.64	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1174.02	Cs-134	2.062 y	(S)	604.71	97.5	795.87	85.3
1175.36	Ir-194	19.15 h	0.0595	328.46	13	293.55	2.52
1175.49	Ac-228	6.1 h	(S)	911	25	968.79	15
1177.69	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1177.94	Tb-160	72.3 d	15.2	879.36	29.8	298.58	26.8
1179.68	Ac-228	6.1 h	(S)	911	25	968.79	15
1179.70	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8
1179.97	Sb-124	60.2 d	(E)	602.73	97.7	1690.97	47
1180.60	Nd-151	* 12.44 m	15.3	116.71	46.7	255.58	16.7
1180.81	Ta-182	115 d	0.0842	1121.3	34.7	1221.41	27.2
1181.97	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1182.09	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
1182.99	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1183.50	Ir-194	19.15 h	0.304	328.46	13	293.55	2.52
1186.33	Ge-77	11.3 h	0.0352	264.42	50.9	211.01	29.1
1186.51	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
1186.68	Mo-101	14.6 m	1.03	191.94	18.7	590.93	16.3
1188.41	Ac-228	6.1 h	(S)	911	25	968.79	15
1188.56	Eu-154	8.8 y	0.0816	123.1	40.4	1274.54	35.4
1189.04	Ta-182	* 115 d	16.4	1121.3	34.7	1221.41	27.2
1189.76	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1190.41	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1193.14	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1193.22	Ge-77	11.3 h	2.43	264.42	50.9	211.01	29.1
1197.35	Ba-141	18.27 m	4.59	190.31	45.9	304.18	25.2
1197.54	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1199.90	Tb-160	72.3 d	2.31	879.36	29.8	298.58	26.8
1199.97	Mo-101	14.6 m	1.75	191.94	18.7	590.93	16.3
1201.05	Ir-192	73.831 d	(S)	316.51	83.1	468.07	47.6
1201.11	Tc-100	15.8 s	0.0412	539.59	7	590.81	5.7
1201.21	Ge-77	11.3 h	0.077	264.42	50.9	211.01	29.1
1204.96	Y-91	* 58.51 d	0.3	182.96	(E)	693.96	(E)
1205.98	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1206.59	Te-131m	* 1.25 d	9.63	773.68	37.7	852.24	19.2
1207.70	Bi-214	19.9 m	0.462	609.29	44.9	1764.5	15.8
1212.85	Sc-48	1.821 d	2.37	983.5	100	1312.05	100
1212.93	Eu-152	13.33 y	1.41	121.78	28.3	344.29	26
1213.00	As-76	1.097 d	1.42	559.08	45	657.06	6.16
1215.21	Ga-72	14.1 h	0.791	834.09	95.6	2201.7	25.8
1215.42	Ge-77	11.3 h	0.119	264.42	50.9	211.01	29.1
1216.14	As-76	1.097 d	3.41	559.08	45	657.06	6.16
1217.30	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
1218.60	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
1221.41	Ta-182	* 115 d	27.2	1121.3	34.7	1189.04	16.4
1223.80	Ta-182	115 d	0.204	1121.3	34.7	1221.41	27.2
1224.48	As-76	1.097 d	(S)	559.08	45	657.06	6.16
1226.63	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1228.66	As-76	1.097 d	1.14	559.08	45	657.06	6.16

1230.64	Yb-177		1.9 h	0.368	150.4	20	1080.24	5.5	
1231.02	Ta-182	*	115 d	11.5	1121.3	34.7	1221.41	27.2	
1231.03	Ga-72		14.1 h	1.45	834.09	95.6	2201.7	25.8	
1232.82	Te-129		1.16 h	0.00746	459.52	7.69	487.31	1.42	
1233.85	Eu-152		13.33 y	(S)	121.78	28.3	344.29	26	
1234.50	Ge-77		11.3 h	0.0264	264.42	50.9	211.01	29.1	
1234.60	Cd-117m		3.36 h	12.7	1065.98	30	1997.31	26.2	
1234.97	Ta-182		115 d	(S)	1121.3	34.7	1221.41	27.2	
1236.40	I-133		20.8 h	1.49	529.85	86.3	875.31	4.46	
1237.05	Rh-104		42.3 s	0.0657	555.83	1.99	358	0.016	
1237.38	Te-131m		1.25 d	0.575	773.68	37.7	852.24	19.2	
1238.02	Rh-104		42.3 s	0.00969	555.83	1.99	1237.05	0.0657	
1238.11	Bi-214		19.9 m	5.98	609.29	44.9	1764.5	15.8	Ra daughter
1238.32	Mn-56	*	2.5785 h	0.0989	846.81	98.9	1810.77	27.2	
1238.61	Ac-228		6.1 h	(S)	911	25	968.79	15	
1241.31	Yb-177		1.9 h	3.35	150.4	20	1080.24	5.5	
1241.39	Eu-154		8.8 y	0.131	123.1	40.4	1274.54	35.4	
1242.16	Ge-77		11.3 h	0.377	264.42	50.9	211.01	29.1	
1244.26	Te-131m		1.25 d	(S)	773.68	37.7	852.24	19.2	
1245.30	Ac-228		6.1 h	0.109	911	25	968.79	15	
1245.83	Eu-154		8.8 y	0.896	123.1	40.4	1274.54	35.4	
1246.99	Ac-228		6.1 h	0.4	911	25	968.79	15	
1247.86	Cd-117		2.49 h	1.19	273.35	27.9	1303.26	18.4	
1248.26	Rb-89	*	15.2 m	42.5	1032.08	57.9	657.88	9.98	
1248.42	Ta-182		115 d	(S)	1121.3	34.7	1221.41	27.2	
1248.59	Sb-124		60.2 d	(S)	602.73	97.7	1690.97	47	
1249.39	Pt-199		30.8 m	0.00888	542.96	14.7	493.74	5.73	
1249.95	Eu-152		13.33 y	0.186	121.78	28.3	344.29	26	
1251.16	Mo-101		14.6 m	4.61	191.94	18.7	590.93	16.3	
1251.31	Tb-160		72.3 d	0.0982	879.36	29.8	298.58	26.8	
1252.70	Br-82		1.4708 d	(S)	776.5	83.2	554.3	70.4	
1253.50	Bi-214		19.9 m	(E)	609.29	44.9	1764.5	15.8	
1254.13	Te-131m		1.25 d	0.0231	773.68	37.7	852.24	19.2	
1254.40	I-132		2.284 h	0.0494	667.73	98.6	772.68	76.2	
1254.68	Ba-139		1.3798 h	0.0302	165.85	22	1420.53	0.302	
1256.79	Br-80		17.68 m	0.0791	616.87	6.69	665.94	1.08	
1257.26	Sb-122		2.7 d	0.805	564.37	70	692.89	3.81	
1257.42	Ta-182		115 d	1.52	1121.3	34.7	1221.41	27.2	
1258.48	Bi-214		19.9 m	(S)	609.29	44.9	1764.5	15.8	
1260.01	Cd-117		2.49 h	1.13	273.35	27.9	1303.26	18.4	
1260.06	Ga-72		14.1 h	1.12	834.09	95.6	2201.7	25.8	
1260.42	I-135	*	6.55 h	28.5	1131.52	22.5	1678.08	9.52	
1260.61	Te-129		1.16 h	0.0112	459.52	7.69	487.31	1.42	
1260.91	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1	
1262.89	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1	
1263.50	Ac-228		6.1 h	(S)	911	25	968.79	15	
1263.84	Ge-77		11.3 h	0.802	264.42	50.9	211.01	29.1	
1263.88	I-132		2.284 h	0.0227	667.73	98.6	772.68	76.2	
1264.13	Te-129		1.16 h	0.00816	459.52	7.69	487.31	1.42	
1264.73	Tb-160		72.3 d	(S)	879.36	29.8	298.58	26.8	
1265.23	Rh-104		42.3 s	0.012	555.83	1.99	1237.05	0.0657	
1265.50	Br-82		1.4708 d	(S)	776.5	83.2	554.3	70.4	
1266.17	Si-31	*	2.622 h	0.07	244.17	(E)	755.17	(E)	
1267.99	Al-28		2.2406 m	(E)	1778.99	100	756.99	(E)	
1268.86	Nb-97		1.202 h	0.157	658.22	98.3	1024.71	1.08	
1271.86	Tb-160		72.3 d	7.49	879.36	29.8	298.58	26.8	
1272.75	I-132		2.284 h	0.147	667.73	98.6	772.68	76.2	
1273.36	Al-29	*	6.56 m	91.3	2425.9	5.2	2028.1	3.5	
1273.72	Ta-182		115 d	0.663	1121.3	34.7	1221.41	27.2	
1273.90	Pb-204m		1.12 h	(S)	899.2	99	911.6	94	
1274.32	Ge-77		11.3 h	(S)	264.42	50.9	211.01	29.1	
1274.53	Na-22	*	2.602 y	99.8	1022	(S)	1785.53	(S)	
1274.54	Eu-154	*	8.8 y	35.4	123.1	40.4	723.35	19.6	

1274.76	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1276.13	Zr-97	16.9 h	0.974	507.7	5.05	1147.94	2.64
1276.83	Ga-72	14.1 h	1.57	834.09	95.6	2201.7	25.8
1277.43	Te-131	25 m	0.117	149.72	68.3	452.33	18.1
1278.12	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1279.93	Ge-77	11.3 h	0.163	264.42	50.9	211.01	29.1
1280.85	Sr-91	9.52 h	0.932	1024.28	33.3	749.72	23.5
1280.98	Bi-214	19.9 m	1.49	609.29	44.9	1764.5	15.8
1282.37	Pd-111m	5.5 h	1.04	391.18	5.37	632.5	3.56
1283.67	In-114m	49.51 d	(S)	190.28	15.4	558.43	4.38
1286.21	Ac-228	6.1 h	(S)	911	25	968.79	15
1286.30	Pb-204m	1.12 h	(S)	899.2	99	911.6	94
1286.69	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8
1287.19	Ac-228	6.1 h	0.09	911	25	968.79	15
1288.24	Ca-49	8.716 m	0.0737	3084.54	92.1	1409.02	0.625
1289.15	Ta-182	115 d	1.39	1121.3	34.7	1221.41	27.2
1289.93	Eu-154	8.8 y	0.0113	123.1	40.4	1274.54	35.4
1290.60	Cd-115m	44.6 d	0.89	933.85	2		
1290.79	I-132	2.284 h	1.13	667.73	98.6	772.68	76.2
1291.60	Fe-59	* 44.496 d	43.2	1099.25	56.5	192.35	3.08
1292.78	Eu-152	13.33 y	0.102	121.78	28.3	344.29	26
1293.59	In-116m	54.15 m	85.1	1097.29	56.2	416.92	30
1293.64	Ar-41	* 1.827 h	99.1				
1293.69	Ir-194	19.15 h	0.0462	328.46	13	293.55	2.52
1294.34	Te-131	25 m	0.482	149.72	68.3	452.33	18.1
1295.35	Ge-77	11.3 h	0.0566	264.42	50.9	211.01	29.1
1295.36	I-132	2.284 h	1.96	667.73	98.6	772.68	76.2
1296.09	Ge-77	11.3 h	0.0847	264.42	50.9	211.01	29.1
1296.40	Ac-228	6.1 h	(S)	911	25	968.79	15
1297.06	Ca-47	* 4.536 d	74.9	807.85	6.88	489.21	6.74
1298.00	I-132	2.284 h	0.858	667.73	98.6	772.68	76.2
1298.21	I-133	20.8 h	2.33	529.85	86.3	875.31	4.46
1298.24	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1299.16	Eu-152	13.33 y	1.62	121.78	28.3	344.29	26
1299.22	As-76	1.097 d	(S)	559.08	45	657.06	6.16
1299.25	Se-83	22.5 m	5.83	356.71	68.6	510.04	44.2
1299.63	Tb-160	72.3 d	0.00491	879.36	29.8	298.58	26.8
1299.77	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2
1300.69	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1302.10	Ac-228	6.1 h	(S)	911	25	968.79	15
1302.71	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1303.26	Cd-117	* 2.49 h	18.4	273.35	27.9	344.46	17.9
1304.03	Mo-101	14.6 m	2.77	191.94	18.7	590.93	16.3
1306.09	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1308.04	Re-188	16.98 h	0.0673	155.06	14.9	633.08	1.25
1309.24	Ge-77	11.3 h	0.459	264.42	50.9	211.01	29.1
1312.05	Sc-48	* 1.821 d	100	983.5	100	1037.5	97.5
1312.14	Tb-160	72.3 d	2.91	879.36	29.8	298.58	26.8
1312.36	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1312.78	Ge-77	11.3 h	0.339	264.42	50.9	211.01	29.1
1314.15	I-132	2.284 h	0.0591	667.73	98.6	772.68	76.2
1314.68	Eu-152m1	9.32 h	0.00073	841.58	14.5	963.36	11.9
1314.83	Nd-151	12.44 m	0.366	116.71	46.7	255.58	16.7
1315.17	Te-131m	1.25 d	0.661	773.68	37.7	852.24	19.2
1316.51	Sb-124	60.2 d	(S)	602.73	97.7	1690.97	47
1317.50	Br-82	1.4708 d	27	776.5	83.2	554.3	70.4
1317.82	I-132	2.284 h	0.107	667.73	98.6	772.68	76.2
1318.09	Ac-228	6.1 h	(S)	911	25	968.79	15
1318.31	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1319.58	Ge-77	11.3 h	(E)	264.42	50.9	211.01	29.1
1319.64	Ge-77	11.3 h	0.285	264.42	50.9	211.01	29.1
1319.65	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1321.79	Co-58	70.916 d	(S)	810.79	99.4	863.96	0.72

1323.11	Re-188	16.98 h	0.00924	155.06	14.9	633.08	1.25
1323.26	Ge-77	11.3 h	0.0153	264.42	50.9	211.01	29.1
1324.13	Y-95	10.3 m	5.25	954.13	18	632.14	0.322
1324.56	Ce-143	1.375 d	0.0126	293.28	42	664.58	5.25
1325.08	Rb-88	17.8 m	(E)	1836.08	21.4	898.04	14.1
1325.08	Y-88	106.61 d	(E)	1836.08	99.3	898.04	92.6
1325.51	Sb-124	60.2 d	1.59	602.73	97.7	1690.97	47
1325.61	Tc-100	15.8 s	0.0112	539.59	7	590.81	5.7
1326.11	Ge-77	11.3 h	0.0362	264.42	50.9	211.01	29.1
1326.19	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9
1329.16	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1330.80	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4
1330.86	As-76	1.097 d	(S)	559.08	45	657.06	6.16
1331.13	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1331.49	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1332.50	Co-60	* 5.271 y	100	1173.24	99.9	2505.74	0.000002
1332.50	Co-60m	* 10.47 m	0.25	826.36	0.00579		
1333.51	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1333.65	V-52	3.75 m	0.587	1434.08	100	1530.68	0.115
1333.70	Pr-146	24.15 m	0.691	453.89	47.9	1524.78	15.6
1334.50	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26
1334.71	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26
1335.08	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1335.38	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1336.44	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
1337.59	Cd-117	2.49 h	1.62	273.35	27.9	1303.26	18.4
1337.59	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1339.20	Ge-77	11.3 h	0.0648	264.42	50.9	211.01	29.1
1339.35	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1340.54	Te-131m	1.25 d	0.0986	773.68	37.7	852.24	19.2
1341.72	Rh-104	42.3 s	0.00277	555.83	1.99	1237.05	0.0657
1342.15	Mg-28	* 20.9 h	54.1	941.56	36.2	400.59	36
1342.74	Ta-182	115 d	0.26	1121.3	34.7	1221.41	27.2
1344.00	Ac-228	6.1 h	(S)	911	25	968.79	15
1344.09	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1344.77	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1344.80	Ac-228	6.1 h	(S)	911	25	968.79	15
1345.03	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1345.09	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1345.78	Cu-64	* 12.701 h	0.483	1022	(S)		
1346.13	Mo-101	14.6 m	1.03	191.94	18.7	590.93	16.3
1346.31	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1
1348.45	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4
1349.38	Sn-125	9.64 d	0.0605	1067.03	9.03	1089.17	4.28
1350.20	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1350.35	I-133	20.8 h	0.149	529.85	86.3	875.31	4.46
1350.91	Te-131	25 m	0.0587	149.72	68.3	452.33	18.1
1355.18	Sb-124	60.2 d	1.05	602.73	97.7	1690.97	47
1355.90	Mo-101	14.6 m	1.66	191.94	18.7	590.93	16.3
1356.90	O-19	26.91 s	55.8	197.1	95.9	109.9	3.1
1358.18	Ge-77	11.3 h	0.0275	264.42	50.9	211.01	29.1
1358.65	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8
1362.09	Tc-100	15.8 s	0.0696	539.59	7	590.81	5.7
1362.15	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1362.65	Zr-97	16.9 h	1.35	507.7	5.05	1147.94	2.64
1363.75	Eu-152	13.33 y	0.0222	121.78	28.3	344.29	26
1364.44	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1365.18	Cs-134	2.062 y	3.04	604.71	97.5	795.87	85.3
1368.15	Sb-124	60.2 d	2.66	602.73	97.7	1690.97	47
1368.29	Ge-77	11.3 h	3.18	264.42	50.9	211.01	29.1
1368.43	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1368.60	Na-24	* 14.9 h	100	2753.99	99.9	346.6	(E)
1368.93	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4

1372.08	I-132	2.284 h	2.47	667.73	98.6	772.68	76.2	
1372.79	Mg-28	20.9 h	4.75	1342.15	54.1	941.56	36.2	
1373.53	Te-129m	33.6 d	0.000266	695.84	2.99	729.53	0.696	
1373.83	Ta-182	115 d	0.231	1121.3	34.7	1221.41	27.2	
1374.41	Ac-228	6.1 h	0.0545	911	25	968.79	15	
1376.13	Sb-124	60.2 d	0.521	602.73	97.7	1690.97	47	
1376.84	Pr-146	24.15 m	4.37	453.89	47.9	1524.78	15.6	
1376.90	Te-131m	1.25 d	0.047	773.68	37.7	852.24	19.2	
1377.67	Bi-214	19.9 m	3.91	609.29	44.9	1764.5	15.8	Ra daughter
1378.22	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1379.32	Ho-166	* 1.117 d	0.93	1581.88	0.181	1662.45	0.115	
1382.44	Rb-88	17.8 m	0.741	1836.08	21.4	898.04	14.1	
1384.06	Sr-92	* 2.71 h	90	953.4	3.6	430.66	3.33	
1384.30	Ag-110m	249.76 d	24.3	657.76	94.6	884.68	72.6	
1385.29	Sb-124	60.2 d	0.0517	602.73	97.7	1690.97	47	
1385.34	Bi-214	19.9 m	0.784	609.29	44.9	1764.5	15.8	
1386.42	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
1387.39	Ta-182	115 d	0.0763	1121.3	34.7	1221.41	27.2	
1388.45	Pd-111	* 23.4 m	0.536	579.97	0.836	1458.85	0.561	
1388.98	Eu-152m1	9.32 h	0.77	841.58	14.5	963.36	11.9	
1389.95	Pd-111m	5.5 h	(S)	391.18	5.37	632.5	3.56	
1392.61	Ac-228	6.1 h	(S)	911	25	968.79	15	
1394.53	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1394.67	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1394.83	Mo-101	14.6 m	0.608	191.94	18.7	590.93	16.3	
1395.60	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
1395.71	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
1397.64	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4	
1398.47	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1398.56	I-132	2.284 h	7.11	667.73	98.6	772.68	76.2	
1398.93	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
1400.58	Cs-134	2.062 y	(S)	604.71	97.5	795.87	85.3	
1400.80	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
1401.32	Te-129m	33.6 d	0.00345	695.84	2.99	729.53	0.696	
1401.52	Bi-214	19.9 m	1.38	609.29	44.9	1764.5	15.8	
1402.03	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
1402.21	Zr-97	16.9 h	(S)	507.7	5.05	1147.94	2.64	
1403.68	Sn-125m	9.52 m	0.699	332.04	96.9	589.78	0.204	
1403.85	Te-131m	1.25 d	0.00993	773.68	37.7	852.24	19.2	
1405.40	Y-92	* 3.54 h	4.78	934.53	13.8	561.11	2.41	
1406.66	Cs-134	2.062 y	(S)	604.71	97.5	795.87	85.3	
1408.00	Eu-152	* 13.33 y	20.8	121.78	28.3	344.29	26	
1408.00	Bi-214	19.9 m	2.49	609.29	44.9	1764.5	15.8	
1408.31	Eu-154	8.8 y	0.0233	123.1	40.4	1274.54	35.4	
1408.70	Cd-117	2.49 h	1.28	273.35	27.9	1303.26	18.4	
1409.02	Ca-49	8.716 m	0.625	3084.54	92.1	2371.96	0.487	
1410.12	Ta-182	115 d	0.0417	1121.3	34.7	1221.41	27.2	
1410.62	I-132	2.284 h	0.0591	667.73	98.6	772.68	76.2	
1411.69	Eu-152m1	9.32 h	0.0451	841.58	14.5	963.36	11.9	
1413.02	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1413.51	Sr-91	9.52 h	0.978	1024.28	33.3	749.72	23.5	
1415.48	Bi-214	19.9 m	0.343	609.29	44.9	1764.5	15.8	
1418.62	Mo-101	14.6 m	0.875	191.94	18.7	590.93	16.3	
1419.63	Sn-125	9.64 d	0.454	1067.03	9.03	1089.17	4.28	
1419.76	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
1420.53	Ba-139	1.3798 h	0.302	165.85	22	1254.68	0.0302	
1421.70	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
1423.26	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1425.69	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
1426.75	As-76	1.097 d	(S)	559.08	45	657.06	6.16	
1427.15	Te-131	25 m	0.105	149.72	68.3	452.33	18.1	
1428.70	Sb-124	60.2 d	(S)	602.73	97.7	1690.97	47	
1431.48	Mo-101	14.6 m	0.358	191.94	18.7	590.93	16.3	

1432.20	Ac-228	6.1 h	(S)	911	25	968.79	15	
1432.91	Cd-117m	3.36 h		25	1065.98	30	1997.31	26.2
1434.00	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26	
1434.08	V-52	*	3.75 m	100	1333.65	0.587	1530.68	0.115
1434.25	Fe-59	44.496 d	(S)	1099.25	56.5	1291.6	43.2	
1435.11	Ga-72	14.1 h	(S)	834.09	95.6	2201.7	25.8	
1435.80	Cs-138	*	32.2 m	76.2	462.78	30.8	1009.77	29.8
1436.56	Sb-124	60.2 d		1.25	602.73	97.7	1690.97	47
1436.81	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
1439.27	As-76	1.097 d		0.268	559.08	45	657.06	6.16
1440.41	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1442.11	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1442.54	I-132	2.284 h		1.41	667.73	98.6	772.68	76.2
1444.10	O-19	26.91 s		3.06	197.1	95.9	1356.9	55.8
1444.30	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1445.07	Sb-124	60.2 d		0.325	602.73	97.7	1690.97	47
1448.34	Tb-160	72.3 d	(S)	879.36	29.8	298.58	26.8	
1450.40	Ac-228	6.1 h	(S)	911	25	968.79	15	
1450.95	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
1452.47	Ge-77	11.3 h		0.113	264.42	50.9	211.01	29.1
1453.11	Ta-182	115 d		0.0425	1121.3	34.7	1221.41	27.2
1453.81	As-76	1.097 d		0.107	559.08	45	657.06	6.16
1454.50	Ge-77	11.3 h		0.0352	264.42	50.9	211.01	29.1
1456.19	Ac-228	6.1 h	(S)	911	25	968.79	15	
1456.56	I-132	2.284 h		0.0483	667.73	98.6	772.68	76.2
1457.57	I-135	6.55 h		8.65	1260.42	28.5	1131.52	22.5
1457.62	Eu-152	13.33 y		0.495	121.78	28.3	344.29	26
1457.64	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1458.85	Pd-111	23.4 m		0.561	579.97	0.836	650.37	0.551
1459.19	Ac-228	6.1 h		0.94	911	25	968.79	15
1459.89	Ho-166	1.117 d	(S)	1379.32	0.93	1581.88	0.181	
1460.83	K-40	*	1.277E+09 y	10.7				
1464.10	Ga-72	14.1 h		3.52	834.09	95.6	2201.7	25.8
1464.96	Ge-77	11.3 h		0.0561	264.42	50.9	211.01	29.1
1466.43	Ge-77	11.3 h		0.0566	264.42	50.9	211.01	29.1
1468.91	Ir-194	19.15 h		0.188	328.46	13	293.55	2.52
1469.09	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
1473.91	Ac-228	6.1 h	(S)	911	25	968.79	15	
1474.90	Br-82	1.4708 d		16.3	776.5	83.2	554.3	70.4
1475.79	Ag-110m	249.76 d		4.01	657.76	94.6	884.68	72.6
1476.31	Ge-77	11.3 h		0.229	264.42	50.9	211.01	29.1
1476.54	I-132	2.284 h		0.137	667.73	98.6	772.68	76.2
1477.49	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1478.92	Ge-77	11.3 h		0.119	264.42	50.9	211.01	29.1
1478.98	Ge-77	11.3 h		0.0806	264.42	50.9	211.01	29.1
1480.00	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1481.56	Fe-59	44.496 d		0.059	1099.25	56.5	1291.6	43.2
1481.90	Ni-65	*	2.52 h	23.5	1115.52	14.7	366.38	4.61
1483.71	Sn-125m	9.52 m		0.184	332.04	96.9	1403.68	0.699
1485.45	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
1485.48	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2	
1485.86	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
1487.40	Sc-48	1.821 d	(S)	983.5	100	1312.05	100	
1488.88	Sb-124	60.2 d		0.694	602.73	97.7	1690.97	47
1489.08	Ge-77	11.3 h	(E)	264.42	50.9	211.01	29.1	
1493.80	Eu-154	8.8 y		0.654	123.1	40.4	1274.54	35.4
1495.56	Ge-77	11.3 h		0.47	264.42	50.9	211.01	29.1
1496.28	Te-131m	1.25 d		0.055	773.68	37.7	852.24	19.2
1496.39	Ac-228	6.1 h		1.02	911	25	968.79	15
1499.62	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1499.72	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
1500.63	Te-131	25 m		0.111	149.72	68.3	452.33	18.1
1501.60	Ac-228	6.1 h		0.545	911	25	968.79	15

1502.76	I-135	6.55 h	1.07	1260.42	28.5	1131.52	22.5
1503.41	Zr-97	16.9 h	(S)	507.7	5.05	1147.94	2.64
1505.04	Ag-110m	* 249.76 d	13	657.76	94.6	884.68	72.6
1507.68	In-116m	54.15 m	9.96	1293.59	85.1	1097.29	56.2
1509.26	Bi-214	19.9 m	2.18	609.29	44.9	1764.5	15.8
1512.70	Bi-212	1.009 h	0.329	727.29	6.7	1620.59	1.52
1513.62	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1515.89	Nb-97	1.202 h	0.117	658.22	98.3	1024.71	1.08
1517.34	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
1518.42	Kr-88	2.84 h	2.14	196.34	26	834.86	13
1519.72	I-132	2.284 h	0.0512	667.73	98.6	772.68	76.2
1521.49	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1524.58	K-42	* 12.36 h	18.7	312.35	0.35	899.21	0.0534
1524.65	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1524.71	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1524.78	Pr-146	24.15 m	15.6	453.89	47.9	735.81	7.44
1526.40	Sb-124	60.2 d	0.4	602.73	97.7	1690.97	47
1528.12	Eu-152	13.33 y	0.291	121.78	28.3	344.29	26
1528.26	Ge-77	11.3 h	0.0438	264.42	50.9	211.01	29.1
1529.75	Kr-88	* 2.84 h	10.9	196.34	26	834.86	13
1529.78	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26
1530.68	V-52	3.75 m	0.115	1434.08	100	1333.65	0.587
1531.70	Ac-228	6.1 h	(S)	911	25	968.79	15
1532.50	Mo-101	* 14.6 m	5.95	191.94	18.7	590.93	16.3
1533.07	As-76	1.097 d	0.0243	559.08	45	657.06	6.16
1536.81	Tc-100	15.8 s	0.429	539.59	7	590.81	5.7
1537.10	Ac-228	6.1 h	0.0119	911	25	968.79	15
1537.90	Eu-154	8.8 y	0.0496	123.1	40.4	1274.54	35.4
1538.74	Ge-77	11.3 h	0.135	264.42	50.9	211.01	29.1
1542.44	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1543.36	Bi-214	19.9 m	0.35	609.29	44.9	1764.5	15.8
1545.97	La-142	1.542 h	2.99	641.25	47.4	894.93	8.49
1547.81	Te-131m	1.25 d	0.0663	773.68	37.7	852.24	19.2
1548.39	Zr-97	16.9 h	(S)	507.7	5.05	1147.94	2.64
1553.22	Ta-182	115 d	(S)	1121.3	34.7	1221.41	27.2
1554.00	O-19	26.91 s	1.43	197.1	95.9	1356.9	55.8
1554.68	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1556.16	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
1560.51	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1562.22	Cd-117	2.49 h	1.41	273.35	27.9	1303.26	18.4
1562.30	Ag-110m	249.76 d	1.03	657.76	94.6	884.68	72.6
1566.40	I-135	6.55 h	1.29	1260.42	28.5	1131.52	22.5
1568.28	Ga-72	14.1 h	0.2	834.09	95.6	2201.7	25.8
1569.41	Ge-77	11.3 h	0.0541	264.42	50.9	211.01	29.1
1571.69	Ga-72	14.1 h	0.822	834.09	95.6	2201.7	25.8
1572.56	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9
1573.66	Ge-77	11.3 h	0.621	264.42	50.9	211.01	29.1
1575.46	Pr-142	* 19.13 h	3.7				
1576.61	Cd-117	* 2.49 h	11.2	273.35	27.9	1303.26	18.4
1579.40	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26
1579.79	Sb-124	60.2 d	0.411	602.73	97.7	1690.97	47
1579.93	Sb-124	60.2 d	(E)	602.73	97.7	1690.97	47
1580.61	Ac-228	6.1 h	0.695	911	25	968.79	15
1581.88	Ho-166	1.117 d	0.181	1379.32	0.93	1662.45	0.115
1581.97	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1583.26	Bi-214	19.9 m	0.721	609.29	44.9	1764.5	15.8
1583.77	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1585.30	Ac-228	6.1 h	(S)	911	25	968.79	15
1588.30	Ac-228	6.1 h	3.52	911	25	968.79	15
1589.45	Mg-28	20.9 h	4.59	1342.15	54.1	941.56	36.2
1591.36	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1592.59	TI-208		[E]	2614.59			Th daughter
1592.91	I-132	2.284 h	0.0444	667.73	98.6	772.68	76.2

1594.80	Bi-214	19.9 m	0.258	609.29	44.9	1764.5	15.8
1595.25	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1596.46	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2
1596.54	La-140	* 1.678 d	95.3	487.02	45.9	815.78	23.5
1596.58	Eu-154	8.8 y	1.83	123.1	40.4	1274.54	35.4
1596.75	Ga-72	14.1 h	4.25	834.09	95.6	2201.7	25.8
1598.00	O-19	26.91 s	0.287	197.1	95.9	1356.9	55.8
1598.30	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4
1599.29	Mo-101	14.6 m	1.75	191.94	18.7	590.93	16.3
1602.15	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2
1604.30	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4
1605.63	Eu-152	13.33 y	0.00738	121.78	28.3	344.29	26
1607.55	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
1608.44	Eu-152	13.33 y	0.00403	121.78	28.3	344.29	26
1610.41	Re-188	16.98 h	0.0978	155.06	14.9	633.08	1.25
1613.79	I-134	52.6 m	4.29	847.06	95.3	884.13	64.9
1616.90	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4
1618.04	Nd-151	12.44 m	0.383	116.71	46.7	255.58	16.7
1620.09	Mg-28	20.9 h	0.3	1342.15	54.1	941.56	36.2
1620.59	Bi-212	1.009 h	1.52	727.29	6.7	785.41	1.16
1622.15	Ir-194	19.15 h	0.063	328.46	13	293.55	2.52
1622.35	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2
1623.47	Ni-65	2.52 h	0.475	1481.9	23.5	1115.52	14.7
1625.50	Ac-228	6.1 h	0.329	911	25	968.79	15
1629.94	Ga-72	14.1 h	0.0325	834.09	95.6	2201.7	25.8
1630.71	Ac-228	6.1 h	1.53	911	25	968.79	15
1632.71	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1633.60	F-20	* 11.03 s	100				
1635.24	Eu-152	13.33 y	0.000145	121.78	28.3	344.29	26
1635.34	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1
1635.58	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2
1638.40	Ac-228	6.1 h	0.455	911	25	968.79	15
1642.59	Cl-38	* 37.24 m	31	2167.68	42	3810.27	0.0256
1643.09	Ac-228	6.1 h	(S)	911	25	968.79	15
1643.30	Cs-134	2.062 y	(S)	604.71	97.5	795.87	85.3
1643.45	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26
1646.00	Te-131m	1.25 d	1.17	773.68	37.7	852.24	19.2
1647.84	Sb-124	60.2 d	(S)	602.73	97.7	1690.97	47
1648.62	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6
1649.90	Eu-152	13.33 y	(S)	121.78	28.3	344.29	26
1650.30	Br-82	1.4708 d	0.831	776.5	83.2	554.3	70.4
1651.30	Pd-111m	5.5 h	0.719	391.18	5.37	632.5	3.56
1655.92	Rb-88	17.8 m	(E)	1836.08	21.4	898.04	14.1
1656.68	Cl-38	37.24 m	(E)	2167.68	42	1642.59	31
1661.27	Bi-214	19.9 m	1.17	609.29	44.9	1764.5	15.8
1662.38	Mo-101	14.6 m	0.683	191.94	18.7	590.93	16.3
1662.45	Ho-166	1.117 d	0.115	1379.32	0.93	1581.88	0.181
1666.21	Ac-228	6.1 h	0.195	911	25	968.79	15
1673.62	Eu-154	8.8 y	0.0122	123.1	40.4	1274.54	35.4
1673.93	Mo-101	14.6 m	1.68	191.94	18.7	590.93	16.3
1674.75	Co-58	70.916 d	0.558	810.79	99.4	863.96	0.72
1678.08	I-135	6.55 h	9.52	1260.42	28.5	1131.52	22.5
1679.28	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8
1679.50	Bi-212	1.009 h	0.07	727.29	6.7	1620.59	1.52
1680.86	Ga-72	14.1 h	0.842	834.09	95.6	2201.7	25.8
1682.05	Cd-117	2.49 h	0.698	273.35	27.9	1303.26	18.4
1683.30	Te-133m	55.4 m	4.2	912.58	62.9	647.4	21.4
1690.90	Pd-111m	5.5 h	1.28	391.18	5.37	632.5	3.56
1690.97	Sb-124	* 60.2 d	47	602.73	97.7	722.78	10.9
1693.09	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8
1697.03	Te-131m	1.25 d	0.0175	773.68	37.7	852.24	19.2
1699.00	Sr-93	7.4 m	3.25	590.2	66.5	875.86	23.9
1706.49	I-135	6.55 h	4.08	1260.42	28.5	1131.52	22.5

1709.79	Ge-77	11.3 h	0.28	264.42	50.9	211.01	29.1		
1711.18	Ga-72	14.1 h	0.045	834.09	95.6	2201.7	25.8		
1712.12	Y-88	106.61 d	(E)	1836.08	99.3	898.04	92.6		
1716.00	I-132	2.284 h	0.0523	667.73	98.6	772.68	76.2		
1719.61	Ge-77	11.3 h	0.377	264.42	50.9	211.01	29.1		
1719.68	Eu-154	8.8 y	(S)	123.1	40.4	1274.54	35.4		
1722.28	Ge-77	11.3 h	0.0484	264.42	50.9	211.01	29.1		
1723.03	La-142	1.542 h	1.52	641.25	47.4	894.93	8.49		
1723.06	Cd-117	2.49 h	2	273.35	27.9	1303.26	18.4		
1724.00	Ac-228	6.1 h	0.03	911	25	968.79	15		
1724.98	Ni-65	2.52 h	0.387	1481.9	23.5	1115.52	14.7		
1727.11	Ge-77	11.3 h	0.14	264.42	50.9	211.01	29.1		
1727.30	I-132	2.284 h	0.0621	667.73	98.6	772.68	76.2		
1729.60	Bi-214	19.9 m	3.02	609.29	44.9	1764.5	15.8	Ra daughter	
1731.99	Na-24	14.9 h	(E)	1368.6	100	2753.99	99.9		
1735.66	Ge-77	11.3 h	0.0362	264.42	50.9	211.01	29.1		
1741.44	I-134	52.6 m	2.66	847.06	95.3	884.13	64.9		
1749.96	Ho-166	1.117 d	0.025	1379.32	0.93	1581.88	0.181		
1750.50	Zr-97	16.9 h	1.35	507.7	5.05	1147.94	2.64		
1752.49	I-132	2.284 h	0.0295	667.73	98.6	772.68	76.2		
1752.89	In-116m	54.15 m	2.45	1293.59	85.1	1097.29	56.2		
1756.52	La-142	1.542 h	2.99	641.25	47.4	894.93	8.49		
1757.35	I-132	2.284 h	0.375	667.73	98.6	772.68	76.2		
1760.21	Zn-71m	3.94 h	0.93	386.38	93	487.36	62.3		
1764.50	Bi-214	*	19.9 m	15.8	609.29	44.9	1120.31	15.3	Ra daughter
1768.38	Xe-138	14.08 m	16.6	258.45	31.4	396.56	6.29		
1769.07	Eu-152	13.33 y	0.00438	121.78	28.3	344.29	26		
1770.24	Bi-207	31.55 y	6.87	569.74	97.74	1063.66	74.5		
1771.33	Co-56	77.27 d	15.49	846.76	99.93	1238.27	66.07		
1772.08	As-76	1.097 d	(S)	559.08	45	657.06	6.16		
1778.66	I-132	2.284 h	0.0591	667.73	98.6	772.68	76.2		
1778.99	Al-28	*	2.2406 m	100	756.99	(E)	1267.99	(E)	
1779.60	Br-82	1.4708 d	0.109	776.5	83.2	554.3	70.4		
1783.90	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4		
1784.60	Ge-77	11.3 h	0.00713	264.42	50.9	211.01	29.1		
1785.53	Na-22	2.602 y	(S)	1274.53	99.8	1022	(S)		
1786.06	Re-188	16.98 h	0.0206	155.06	14.9	633.08	1.25		
1787.74	As-76	1.097 d	0.297	559.08	45	657.06	6.16		
1791.22	I-135	6.55 h	7.7	1260.42	28.5	1131.52	22.5		
1792.47	Ge-77	11.3 h	0.0454	264.42	50.9	211.01	29.1		
1792.88	Rh-104	42.3 s	(S)	555.83	1.99	1237.05	0.0657		
1793.80	Al-29	6.56 m	0.026	1273.36	91.3	2425.9	5.2		
1793.85	Rh-104	42.3 s	0.00102	555.83	1.99	1237.05	0.0657		
1801.00	Bi-212	1.009 h	0.00944	727.29	6.7	1620.59	1.52		
1802.22	Re-188	16.98 h	0.0374	155.06	14.9	633.08	1.25		
1803.91	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2		
1805.74	Ir-194	19.15 h	0.0324	328.46	13	293.55	2.52		
1806.09	Bi-212	1.009 h	0.112	727.29	6.7	1620.59	1.52		
1806.86	I-134	52.6 m	5.53	847.06	95.3	884.13	64.9		
1809.79	Ge-77	11.3 h	0.036	264.42	50.9	211.01	29.1		
1810.77	Mn-56	*	2.5785 h	27.2	846.81	98.9	2113.15	14.2	
1810.80	Pb-204m	1.12 h	(S)	899.2	99	911.6	94		
1816.99	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8		
1820.50	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4		
1822.14	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8		
1822.17	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6		
1830.53	Ho-166	1.117 d	0.008	1379.32	0.93	1581.88	0.181		
1830.55	Te-131m	1.25 d	0.00763	773.68	37.7	852.24	19.2		
1830.58	Ge-77	11.3 h	(E)	264.42	50.9	211.01	29.1		
1832.79	Co-58	70.916 d	(S)	810.79	99.4	863.96	0.72		
1836.08	Rb-88	17.8 m	21.4	898.04	14.1	2677.92	1.95		
1836.08	Y-88	*	106.61 d	99.3	898.04	92.6	2734.12	0.666	
1836.93	K-42	12.36 h	(S)	1524.58	18.7	312.35	0.35		

1837.19	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
1838.40	Bi-214	19.9 m	0.391	609.29	44.9	1764.5	15.8	
1840.24	Mo-101	14.6 m	1.37	191.94	18.7	590.93	16.3	
1846.35	Ge-77	11.3 h	0.162	264.42	50.9	211.01	29.1	
1847.42	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	Ra daughter
1847.71	Tc-100	15.8 s	0.0385	539.59	7	590.81	5.7	
1851.70	Zr-97	16.9 h	0.352	507.7	5.05	1147.94	2.64	
1861.08	Ga-72	14.1 h	5.25	834.09	95.6	2201.7	25.8	
1865.20	Tc-100	15.8 s	0.0138	539.59	7	590.81	5.7	
1870.06	As-76	1.097 d	0.0561	559.08	45	657.06	6.16	
1871.80	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
1873.17	Bi-214	19.9 m	0.231	609.29	44.9	1764.5	15.8	
1877.75	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
1877.85	Ga-72	14.1 h	0.231	834.09	95.6	2201.7	25.8	
1878.64	Ge-77	11.3 h	0.0347	264.42	50.9	211.01	29.1	
1879.50	Na-24	14.9 h	(S)	1368.6	100	2753.99	99.9	
1880.24	Te-131m	1.25 d	0.0645	773.68	37.7	852.24	19.2	
1884.94	Ga-72	14.1 h	(S)	834.09	95.6	2201.7	25.8	
1887.72	Te-131m	1.25 d	1.26	773.68	37.7	852.24	19.2	
1889.40	Sn-125	9.64 d	0.0687	1067.03	9.03	1089.17	4.28	
1890.27	Bi-214	19.9 m	0.0948	609.29	44.9	1764.5	15.8	
1899.16	Te-131m	1.25 d	(S)	773.68	37.7	852.24	19.2	
1901.44	La-142	* 1.542 h	7.87	641.25	47.4	894.93	8.49	
1913.78	I-132	2.284 h	0.0591	667.73	98.6	772.68	76.2	
1921.06	I-132	2.284 h	1.17	667.73	98.6	772.68	76.2	
1921.77	K-42	12.36 h	0.0429	1524.58	18.7	312.35	0.35	
1921.86	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1924.57	Te-131m	1.25 d	0.0036	773.68	37.7	852.24	19.2	
1925.27	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
1925.30	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	
1936.69	Bi-214	19.9 m	(E)	609.29	44.9	1764.5	15.8	
1937.96	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
1949.90	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
1955.70	As-76	1.097 d	0.009	559.1	45			
1963.09	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
1969.89	Cs-134	2.062 y	(S)	604.71	97.5	795.87	85.3	
1970.88	Sb-124	60.2 d	(S)	602.73	97.7	1690.97	47	
1980.09	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
1980.27	Te-131m	1.25 d	0.0306	773.68	37.7	852.24	19.2	
1982.47	Sn-125	9.64 d	0.00298	1067.03	9.03	1089.17	4.28	
1994.63	Bi-214	19.9 m	(S)	609.29	44.9	1764.5	15.8	
1996.86	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
1997.31	Cd-117m	3.36 h	26.2	1065.98	30	1432.91	25	
1998.35	As-76	1.097 d	(S)	559.08	45	657.06	6.16	
2000.08	Ge-77	11.3 h	0.529	264.42	50.9	211.01	29.1	
2001.05	Te-131m	1.25 d	1.99	773.68	37.7	852.24	19.2	
2001.75	Sn-125	9.64 d	1.79	1067.03	9.03	1089.17	4.28	
2002.35	I-132	2.284 h	1.09	667.73	98.6	772.68	76.2	
2009.76	Sc-46	83.83 d	(S)	889.25	100	1120.51	100	
2010.72	La-140	1.678 d	(E)	1596.54	95.3	487.02	45.9	
2010.81	Bi-214	19.9 m	0.0495	609.29	44.9	1764.5	15.8	
2011.91	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
2013.79	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
2017.29	Bi-214	19.9 m	0.00423	609.29	44.9	1764.5	15.8	
2021.00	Sc-48	1.821 d	(S)	983.5	100	1312.05	100	
2028.10	Al-29	6.56 m	3.5	1273.36	91.3	2425.9	5.2	
2029.07	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	
2029.20	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2037.79	Ge-77	11.3 h	0.0582	264.42	50.9	211.01	29.1	
2039.29	Sb-124	60.2 d	0.0684	602.73	97.7	1690.97	47	
2042.06	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2051.40	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2062.54	Ca-49	8.716 m	(E)	3084.54	92.1	1409.02	0.625	

2065.12	Ga-72	14.1 h	(S)	834.09	95.6	2201.7	25.8	
2066.29	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
2066.66	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
2076.40	Tc-100	15.8 s	(S)	539.59	7	590.81	5.7	
2077.16	Ge-77	11.3 h	0.22	264.42	50.9	211.01	29.1	
2081.98	S-37	5.05 m	(E)	3103.98	94	2592.98	(E)	
2083.56	La-140	1.678 d	0.0115	1596.54	95.3	487.02	45.9	
2086.83	I-132	2.284 h	0.247	667.73	98.6	772.68	76.2	
2089.65	Ge-77	11.3 h	0.327	264.42	50.9	211.01	29.1	
2090.93	Sb-124	60.2 d	5.49	602.73	97.7	1690.97	47	
2094.00	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2094.15	Ga-72	14.1 h	(S)	834.09	95.6	2201.7	25.8	
2096.33	As-76	1.097 d	0.575	559.08	45	657.06	6.16	
2103.59	Tl-208		[E]	2614.59				Th daughter
2105.97	Zr-97	16.9 h	(S)	507.7	5.05	1147.94	2.64	
2108.07	Sb-124	60.2 d	0.0391	602.73	97.7	1690.97	47	
2109.55	Ga-72	14.1 h	1.04	834.09	95.6	2201.7	25.8	
2110.27	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
2110.77	Ge-77	11.3 h	(S)	264.42	50.9	211.01	29.1	
2110.87	As-76	1.097 d	0.331	559.08	45	657.06	6.16	
2113.15	Mn-56	2.5785 h	14.2	846.81	98.9	1810.77	27.2	
2118.55	Bi-214	19.9 m	1.19	609.29	44.9	1764.5	15.8	Ra daughter
2120.41	Tc-100	15.8 s	0.00354	539.59	7	590.81	5.7	
2126.10	Ge-77	11.3 h	0.192	264.42	50.9	211.01	29.1	
2146.58	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
2162.80	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2166.92	Rb-88	17.8 m	(E)	1836.08	21.4	898.04	14.1	
2167.68	Cl-38	* 37.24 m	42	1642.59	31	3810.27	0.0256	
2171.24	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
2172.26	Sb-124	60.2 d	0.000977	602.73	97.7	1690.97	47	
2172.58	I-132	2.284 h	0.187	667.73	98.6	772.68	76.2	
2182.47	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2182.52	Sb-124	60.2 d	0.0391	602.73	97.7	1690.97	47	
2192.55	Bi-214	19.9 m	0.0616	609.29	44.9	1764.5	15.8	
2201.70	Ga-72	14.1 h	25.8	834.09	95.6	630.01	24.9	
2204.21	Bi-214	19.9 m	4.9	609.29	44.9	1764.5	15.8	Ra daughter
2220.06	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2223.12	Y-88	106.61 d	(E)	1836.08	99.3	898.04	92.6	
2223.18	I-132	2.284 h	0.117	667.73	98.6	772.68	76.2	
2228.62	Ca-49	8.716 m	0.192	3084.54	92.1	1409.02	0.625	
2239.73	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2242.99	Na-24	14.9 h	(E)	1368.6	100	2753.99	99.9	
2249.12	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2268.98	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2270.62	Te-131m	1.25 d	0.383	773.68	37.7	852.24	19.2	
2275.29	Sn-125	9.64 d	0.16	1067.03	9.03	1089.17	4.28	
2277.27	Cl-38	37.24 m	(E)	2167.68	42	1642.59	31	
2293.40	Bi-214		609.31					Ra daughter
2293.70	Sb-124	60.2 d	0.031	602.73	97.7	1690.97	47	
2295.55	Sc-48	1.821 d	(S)	983.5	100	1312.05	100	
2296.53	Na-22	2.602 y	(S)	1274.53	99.8	1022	(S)	
2298.41	Tc-100	15.8 s	0.0139	539.59	7	590.81	5.7	
2303.18	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
2341.58	Ge-77	11.3 h	0.445	264.42	50.9	211.01	29.1	
2347.72	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
2348.19	La-140	1.678 d	0.849	1596.54	95.3	487.02	45.9	
2349.55	Sc-48	1.821 d	(S)	983.5	100	1312.05	100	
2350.11	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	
2354.07	Ge-77	11.3 h	0.00458	264.42	50.9	211.01	29.1	
2371.96	Ca-49	8.716 m	0.487	3084.54	92.1	1409.02	0.625	
2390.58	I-132	2.284 h	0.167	667.73	98.6	772.68	76.2	
2395.03	I-132	2.284 h	(S)	667.73	98.6	772.68	76.2	
2412.32	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	

2425.90	Al-29	6.56 m	5.2	1273.36	91.3	2028.1	3.5	
2426.80	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2429.14	As-76	1.097 d	0.0327	559.08	45	657.06	6.16	
2430.84	Ga-72	14.1 h	(S)	834.09	95.6	2201.7	25.8	
2447.86	Bi-214	19.9 m	1.54	609.29	44.9	1764.5	15.8	Ra daughter
2448.96	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
2464.36	La-140	1.678 d	0.0171	1596.54	95.3	487.02	45.9	
2479.93	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2482.46	Bi-214	19.9 m	0.0021	609.29	44.9	1764.5	15.8	
2491.09	Ga-72	14.1 h	7.66	834.09	95.6	2201.7	25.8	
2505.74	Co-60	5.271 y	0.000002	1332.5	100	1173.24	99.9	mostly (S)
2507.86	Ga-72	14.1 h	12.8	834.09	95.6	2201.7	25.8	
2514.95	Ga-72	14.1 h	0.249	834.09	95.6	2201.7	25.8	
2516.09	La-140	1.678 d	(S)	1596.54	95.3	487.02	45.9	
2521.72	La-140	1.678 d	3.43	1596.54	95.3	487.02	45.9	
2522.91	Mn-56	2.5785 h	0.985	846.81	98.9	1810.77	27.2	
2524.79	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
2547.39	La-140	1.678 d	0.104	1596.54	95.3	487.02	45.9	
2556.10	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2573.54	Ca-49	8.716 m	(E)	3084.54	92.1	1409.02	0.625	
2592.98	S-37	5.05 m	(E)	3103.98	94	2081.98	(E)	
2598.44	Co-56	77.27 d	16.96	846.76	99.93	1238.27	66.07	
2614.53	Tl-208	5.053 m	98.6	583.1	84.1	510.81	21.6	Th daughter
2621.48	Ga-72	14.1 h	0.132	834.09	95.6	2201.7	25.8	
2648.30	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2655.41	As-76	1.097 d	0.044	559.08	45	657.06	6.16	
2657.58	Mn-56	2.5785 h	0.653	846.81	98.9	1810.77	27.2	
2669.95	As-76	1.097 d	0.00027	559.08	45	657.06	6.16	
2677.92	Rb-88	17.8 m	1.95	1836.08	21.4	898.04	14.1	
2693.66	Sb-124	60.2 d	0.15	602.73	97.7	1690.97	47	
2695.17	Ga-72	14.1 h	(S)	834.09	95.6	2201.7	25.8	
2734.12	Y-88	106.61 d	0.666	1836.08	99.3	898.04	92.6	
2753.99	Na-24	*	14.9 h	99.9	1368.6	100	346.6	(E)
2767.73	V-52	3.75 m	(S)	1434.08	100	1333.65	0.587	
2788.27	Cl-38	37.24 m	(E)	2167.68	42	1642.59	31	
2814.18	Ga-72	14.1 h	(E)	834.09	95.6	2201.7	25.8	
2827.90	Br-82	1.4708 d	(S)	776.5	83.2	554.3	70.4	
2844.14	Ga-72	14.1 h	0.42	834.09	95.6	2201.7	25.8	
2848.09	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
2858.72	Mn-56	2.5785 h	(E)	846.81	98.9	1810.77	27.2	
2866.99	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
2891.90	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
2899.75	La-140	1.678 d	0.0658	1596.54	95.3	487.02	45.9	
2926.74	Ag-110m	249.76 d	(S)	657.76	94.6	884.68	72.6	
2959.96	Mn-56	2.5785 h	0.306	846.81	98.9	1810.77	27.2	
3050.02	Ca-49	8.716 m	(E)	3084.54	92.1	1409.02	0.625	
3053.90	Bi-214			609.31				Ra daughter
3084.54	Ca-49	*	8.716 m	92.1	1409.02	0.625	2371.96	0.487
3100.59	Na-24		14.9 h	(E)	1368.6	100	2753.99	99.9
3103.98	S-37	*	5.05 m	94	2081.98	(E)	2592.98	(E)
3125.40	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
3197.69	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
3299.27	Cl-38	37.24 m	(E)	2167.68	42	1642.59	31	
3369.72	Mn-56	2.5785 h	0.17	846.81	98.9	1810.77	27.2	
3377.80	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
3475.00	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
3523.40	Co-56	77.27 d	7.62	846.76	99.93	1238.27	66.07	
3708.50	Tl-208	5.053 m	(S)	2614.59	98.6	583.1	84.1	
3810.27	Cl-38	37.24 m	0.0256	2167.68	42	1642.59	31	

(E) Escape peak
(S) Sum peak