

Main parameters for each nuclide of the JEFF-3.1/RDD Version 1 Library (updated March 2005)

The table on the following pages includes summary information for the main parameters extracted from the JEFF-3.1 Radioactive Decay Data File, version 1. All important parameters have been included to allow rapid access to the values stored in the ENDF formatted library.

Notes:

The following columns appear in the table as described below:

Matn:	Material number - allocated by incrementing from 1 for each nuclide to 3852.
Nuclide:	Consists of the nuclide identifier in the following format; ZZZ-Sy-AAAX, where ZZZ is the atomic number, Sy is the chemical symbol (lowercase 2nd letter), AAA is the mass number and X denotes if ground (blank), 1st metastable (M), 2nd metastable (N) or 3rd metastable (O).
SpPa:	Denotes the Spin and Parity. A "?" shows this is unknown, denoted as -77.777 in the actual ENDF format.
Exc ener:	Gives the Excitation Energy (in eV) for a metastable state (left blank for ground states).
Halflife:	The halflife of the isotope is presented in either seconds (s), minutes (m), hours (h) or years (y) along with its percentage error (all halflives are stored in seconds in the original library). Those marked 100% means that no error was given in the original file, i.e. was given as zero, and those marked "~" means that the percentage error is less than 0.01%. The number of seconds in a year is that used in NUBASE-2003, i.e. 1 year = 365.2422 days = 31,556,926 s. A maximum of three decimal places are used (with trailing zeroes removed).
Decay modes:	The decay modes are given followed by their branching ratio (given in %), a "~" denotes the branching ratio is less than 0.01%. Each individual mode is separated by a ";" and an "m" or an "n" subscript denotes the daughter is in its 1st or 2nd metastable state respectively. Compound modes are separated by a comma e.g. β -,n indicates a β - decay followed by a neutron decay.
Nsp:	Shows the number of spectra given in the file.
$\langle\beta\rangle$ (eV)	Shows the average light particle energy (in eV) released in the decay, i.e. $\langle\beta\rangle = \langle\beta^{-}\rangle + \langle\beta^{+}\rangle + \langle e^{-}\rangle + \dots$
$\langle\gamma\rangle$ (eV)	Shows the average electromagnetic radiation energy (in eV) released in the decay, i.e. $\langle\gamma\rangle = \langle\gamma\rangle + \langle x\text{-rays}\rangle + \langle \text{ann.rad.}\rangle + \dots$
$\langle\alpha\rangle$ (eV)	Shows the average heavy particle energy (in eV) released in the decay, i.e. $\langle\alpha\rangle = \langle\alpha\rangle + \langle \text{SF}\rangle + \langle p\rangle + \langle n\rangle + \dots$
	For the three average energies above, a value of zero is replaced by blanks for better readability.
Source	Gives the name of the original library where the data were taken from.

Stable nuclei are included in the library for the first time and are included in the table with information given for the material number, nuclide identifier, spin/parity and source library.

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0043	5-B - 11	1.5-								NUBASE
0044	5-B - 12	1.0+		0.02 s 0.10	β^- :98.42; β^- , α :1.58	3	6.308E+06	9.056E+04	6.642E+03	UKPADD64
0045	5-B - 13	1.5-		0.017 s 0.98	β^- :99.72; β^- ,n:0.28	3	6.278E+06	3.135E+05	9.757E+03	UKPADD64
0046	5-B - 14	2.0-		0.013 s 4	β^- :100.00	2	7.085E+06	5.936E+06	2.318E+04	ENSDF
0047	5-B - 15	1.5-		9.87E-03 s 0.71	β^- :6.00; β^- ,n:93.60; β^- ,2n:0.40	0	4.576E+06	4.576E+06	4.194E+06	NUBASE
0048	5-B - 16	0.0-		1.9E-10 s 100	n:100.00	0			3.670E+04	NUBASE
0049	5-B - 17	1.5-		5.08E-03 s 0.98	β^- :22.50; β^- ,n:63.00; β^- ,2n:11.00; β^- ,3n:3.50	0	5.804E+06	5.804E+06	4.099E+06	NUBASE
0050	5-B - 18	4.0-		2.6E-08 s 100	n:100.00	0			4.787E+05	NUBASE
0051	5-B - 19	1.5-		2.92E-03 s 4.45	β^- ,n:75.00; β^- ,2n:25.00	0	6.328E+06	6.328E+06	6.328E+06	NUBASE
0052	6-C - 8	0.0+		2E-21 s 20	2p:100.00	0			2.141E+06	NUBASE
0053	6-C - 9	1.5-		0.127 s 0.71	β^+ :60.00; β^+ ,p:23.00; β^+ ,n:17.00	0	4.887E+06	4.887E+06	1.588E+06	NUBASE
0054	6-C - 10	0.0+		19.255 s 0.28	β^+ :100.00	4	8.086E+05	1.744E+06		ENSDF
0055	6-C - 11	1.5-		20.37 m ~	β^+ :100.00	3	3.846E+05	1.019E+06		LNHB
0056	6-C - 12	0.0+								NUBASE
0057	6-C - 13	0.5-								NUBASE
0058	6-C - 14	0.0+		5699.985 y ~	β^- :100.00	1	4.948E+04			LNHB
0059	6-C - 15	0.5+		2.449 s 0.20	β^- :100.00	2	2.856E+06	3.622E+06		UKPADD64
0060	6-C - 16	0.0+		0.747 s 1.07	β^- :2.10; β^- ,n:97.90	0	1.407E+06	1.407E+06	1.351E+06	NUBASE
0061	6-C - 17	1.5+		0.193 s 2.59	β^- :71.60; β^- ,n:28.40	0	3.660E+06	3.660E+06	5.172E+05	NUBASE
0062	6-C - 18	0.0+		0.092 s 2.17	β^- :68.50; β^- ,n:31.50	0	3.406E+06	3.406E+06	7.078E+05	NUBASE
0063	6-C - 19	0.5+		0.046 s 4.98	β^- :46.00; β^- ,n:47.00; β^- ,2n:7.00	0	4.006E+06	4.006E+06	1.467E+06	NUBASE
0064	6-C - 20	0.0+		0.016 s 18.75	β^- :28.00; β^- ,n:72.00	0	3.927E+06	3.927E+06	2.453E+06	NUBASE
0065	6-C - 21	0.5+		3E-08 s 100	n:100.00	0			3.287E+05	NUBASE
0066	6-C - 22	0.0+		6.2E-03 s 20.97	β^- :1.00; β^- ,n:99.00	0	5.011E+06	5.011E+06	4.940E+06	NUBASE
0067	7-N - 10	2.0-		2E-22 s 70	p:100.00	0			2.600E+06	NUBASE
0068	7-N - 11	0.5+		5.9E-22 s 35.59	p:100.00	0			1.312E+06	NUBASE
0069	7-N - 12	1.0+		0.011 s 0.15	β^+ :100.00	4	7.729E+06	1.191E+06	2.466E+04	ENSDF
0070	7-N - 13	0.5-		9.967 m ~	β^+ :100.00	3	4.908E+05	1.020E+06		LNHB
0071	7-N - 14	1.0+								NUBASE
0072	7-N - 15	0.5-								NUBASE
0073	7-N - 16	2.0-		7.13 s 0.28	β^- :100.00; β^- , α :~	3	2.679E+06	4.622E+06	2.970E+01	UKPADD64
0074	7-N - 17	0.5-		4.17 s 0.10	β^- :5.00; β^- ,n:95.00; β^- , α :~	4	1.698E+06	4.451E+04	9.011E+05	UKPADD64
0075	7-N - 18	1.0-		0.622 s 1.45	β^- :76.90; β^- ,n:10.90; β^- , α :12.20	0	3.955E+06	3.955E+06	3.934E+05	NUBASE
0076	7-N - 19	0.5-		0.271 s 2.95	β^- :45.40; β^- ,n:54.60	0	3.066E+06	3.066E+06	1.170E+06	NUBASE
0077	7-N - 20	?		0.13 s 5.38	β^- :43.00; β^- ,n:57.00	0	4.053E+06	4.053E+06	1.477E+06	NUBASE
0078	7-N - 21	0.5-		0.087 s 6.90	β^- :20.00; β^- ,n:80.00	0	3.822E+06	3.822E+06	2.676E+06	NUBASE
0079	7-N - 22	?		0.014 s 10.07	β^- :65.00; β^- ,n:35.00	0	6.323E+06	6.323E+06	1.392E+06	NUBASE
0080	7-N - 23	0.5-		0.015 s 9.66	β^- :20.00; β^- ,n:80.00	0	5.796E+06	5.796E+06	4.210E+06	NUBASE
0081	7-N - 24	?		5.2E-08 s 100	n:100.00	0			1.069E+06	NUBASE
0082	7-N - 25	0.5-		2.6E-07 s 100	n:50.00; 2n:50.00	0			1.423E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0083	8-O - 12	0.0+		5.8E-22 s 5.17	2p:60.00; β +:40.00	0	1.961E+06	1.961E+06	1.063E+06	NUBASE
0084	8-O - 13	1.5-		8.58E-03 s 0.58	β +:89.10; β +,p:10.90	0	5.708E+06	5.708E+06	4.312E+05	NUBASE
0085	8-O - 14	0.0+		1.177 m ~	β +:100.00	4	7.762E+05	3.320E+06		ENSDF
0086	8-O - 15	0.5-		2.041 m ~	β +:100.00	3	7.357E+05	1.021E+06		LNHB
0087	8-O - 16	0.0+								NUBASE
0088	8-O - 17	2.5+								NUBASE
0089	8-O - 18	0.0+								NUBASE
0090	8-O - 19	2.5+		26.91 s 0.30	β -:100.00	2	1.710E+06	1.005E+06		UKPADD64
0091	8-O - 20	0.0+		13.51 s 0.37	β -:100.00	2	1.197E+06	1.057E+06		ENSDF
0092	8-O - 21	?		3.42 s 2.92	β -:100.00	2	2.447E+06	2.946E+06	2.178E+03	ENSDF
0093	8-O - 22	0.0+		2.25 s 6.67	β -:78.00; β -,n:22.00	0	1.756E+06	1.756E+06	6.910E+04	NUBASE
0094	8-O - 23	0.5+		0.09 s 44.44	β -:69.00; β -,n:31.00	0	2.885E+06	2.885E+06	2.903E+05	NUBASE
0095	8-O - 24	0.0+		0.065 s 7.69	β -:82.00; β -,n:18.00	0	3.491E+06	3.491E+06	3.451E+05	NUBASE
0096	8-O - 25	1.5+		5E-08 s 100	n:100.00	0			2.987E+05	NUBASE
0097	8-O - 26	0.0+		4E-08 s 100	2n:70.00; n:30.00	0			4.078E+05	NUBASE
0098	8-O - 27	1.5+		2.6E-07 s 100	n:50.00; 2n:50.00	0			1.268E+06	NUBASE
0099	8-O - 28	0.0+		1E-07 s 100	n:50.00; 2n:50.00	0			1.413E+06	NUBASE
0100	9-F - 14	2.0-		1E-09 s 100	p:100.00	0			2.259E+06	NUBASE
0101	9-F - 15	0.5+		4.1E-22 s 14.63	p:100.00	0			1.484E+06	NUBASE
0102	9-F - 16	0.0-		1.1E-20 s 54.55	p:100.00	0			5.354E+05	NUBASE
0103	9-F - 17	2.5+		1.075 m ~	β +:100.00	3	7.386E+05	1.021E+06		ENSDF
0104	9-F - 18	1.0+		1.829 h ~	β +:100.00	3	2.420E+05	9.899E+05		LNHB
0105	9-F - 19	0.5+								NUBASE
0106	9-F - 20	2.0+		11.03 s 0.27	β -:100.00	2	2.467E+06	1.645E+06		UKPADD64
0107	9-F - 21	2.5+		4.158 s 0.48	β -:100.00	2	2.354E+06	5.373E+05	1.492E+03	ENSDF
0108	9-F - 22	?		4.23 s 0.95	β -:100.00	2	2.326E+06	5.749E+06	2.661E+03	ENSDF
0109	9-F - 23	?		2.23 s 6.28	β -:86.00; β -,n:14.00	0	2.547E+06	2.547E+06	1.149E+05	NUBASE
0110	9-F - 24	?		0.4 s 12.50	β -:100.00	2	6.101E+06	1.982E+06	7.684E+03	ENSDF
0111	9-F - 25	2.5+		0.05 s 12	β -:86.00; β -,n:14.00	0	4.155E+06	4.155E+06	3.203E+05	NUBASE
0112	9-F - 26	1.0+		0.01 s 13.73	β -:89.00; β -,n:11.00	0	5.631E+06	5.631E+06	3.384E+05	NUBASE
0113	9-F - 27	2.5+		4.9E-03 s 4.08	β -:23.00; β -,n:77.00	0	4.532E+06	4.532E+06	3.163E+06	NUBASE
0114	9-F - 28	?		4E-08 s 100	n:100.00	0			2.287E+05	NUBASE
0115	9-F - 29	2.5+		2.6E-03 s 11.54	β -:40.00; β -,n:60.00	0	6.114E+06	6.114E+06	3.148E+06	NUBASE
0116	9-F - 30	?		2.6E-07 s 100	n:100.00	0			5.287E+05	NUBASE
0117	9-F - 31	2.5+		1E-03 s 100	β -:100.00	0	8.483E+06	8.483E+06		NUBASE
0118	10-Ne- 16	0.0+		9E-21 s 100	2p:100.00	0			1.411E+06	NUBASE
0119	10-Ne- 17	0.5-		0.109 s 0.55	β +:1.30; β +,p:96.00; β +,n:2.70	0	3.460E+06	3.460E+06	3.397E+06	NUBASE
0120	10-Ne- 18	0.0+		1.672 s 0.48	β +:100.00	4	1.499E+06	1.105E+06		ENSDF
0121	10-Ne- 19	0.5+		17.22 s 0.12	β +:100.00	3	9.621E+05	1.021E+06		ENSDF
0122	10-Ne- 20	0.0+								NUBASE
0123	10-Ne- 21	1.5+								NUBASE
0124	10-Ne- 22	0.0+								NUBASE
0125	10-Ne- 23	2.5+		37.2 s 0.54	β -:100.00	2	1.890E+06	1.728E+05		UKPADD64
0126	10-Ne- 24	0.0+		3.38 m 0.01	β - _m :100.00	0	6.648E+05	6.648E+05		NUBASE
0127	10-Ne- 25	1.5+		0.602 s 1.33	β -:100.00	0	2.417E+06	2.417E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0128	10-Ne- 26	0.0+		0.197 s 0.51	β^- :100.00	2			2.179E+03	ENSDF
0129	10-Ne- 27	1.5+		0.032 s 6.25	β^- :98.00; β^- ,n:2.00	0	4.141E+06	4.141E+06	2.930E+04	NUBASE
0130	10-Ne- 28	0.0+		0.018 s 12.02	β^- :84.00; β^- ,n:16.00	0	3.772E+06	3.772E+06	3.474E+05	NUBASE
0131	10-Ne- 29	1.5+		0.016 s 3.21	β^- :78.80; β^- ,n:19.00; β^- ,2n:2.20	0	4.606E+06	4.606E+06	5.623E+05	NUBASE
0132	10-Ne- 30	0.0+		5.8E-03 s 3.45	β^- :87.00; β^- ,n:13.00	0	4.676E+06	4.676E+06	4.018E+05	NUBASE
0133	10-Ne- 31	3.5-		3.4E-03 s 23.53	β^- :100.00	0	6.063E+06	6.063E+06		NUBASE
0134	10-Ne- 32	0.0+		3.5E-03 s 25.71	β^- :100.00	0	6.073E+06	6.073E+06		NUBASE
0135	10-Ne- 33	3.5-		2.6E-07 s 100	n:100.00	0			6.487E+05	NUBASE
0136	10-Ne- 34	0.0+		1E-03 s 100	β^- :100.00	0	6.787E+06	6.787E+06		NUBASE
0137	11-Na- 18	1.0-		1.3E-21 s 30.77	p:50.00; β^+ :50.00	0	3.145E+06	3.145E+06	2.200E+05	NUBASE
0138	11-Na- 19	2.5+		4E-08 s 100	p:100.00	0			3.208E+05	NUBASE
0139	11-Na- 20	2.0+		0.448 s 0.51	β^+ :75.00; β^+ ,n:25.00	0	4.045E+06	4.045E+06	5.725E+05	NUBASE
0140	11-Na- 21	1.5+		22.49 s 0.18	β^+ :100.00	4	1.101E+06	1.037E+06		ENSDF
0141	11-Na- 22	3.0+		2.603 y ~	β^+ :100.00	4	1.942E+05	2.192E+06		LNHB
0142	11-Na- 23	1.5+								NUBASE
0143	11-Na- 24	4.0+		14.957 h ~	β^- :100.00	4	5.548E+05	4.121E+06		LNHB
0144	11-Na- 24M	1.0+	4.723E+05	0.02 s 0.99	IT:99.50; β^- :0.50	2	1.384E+04	4.699E+05		LNHB
0145	11-Na- 25	2.5+		59.6 s 1.17	β^- :100.00	2	1.496E+06	4.369E+05		UKPADD64
0146	11-Na- 26	3.0+		1.08 s 0.93	β^- :100.00	2	3.329E+06	2.180E+06		UKPADD64
0147	11-Na- 27	2.5+		0.301 s 1.99	β^- :100.00	2	3.615E+06	1.166E+06	2.802E+03	ENSDF
0148	11-Na- 28	1.0+		0.03 s 1.31	β^- :100.00	2	6.129E+06	1.139E+06	6.881E+03	ENSDF
0149	11-Na- 29	1.5+		0.045 s 2.67	β^- :74.10; β^- ,n:25.90	0	3.904E+06	3.904E+06	6.224E+05	NUBASE
0150	11-Na- 30	2.0+		0.048 s 3.51	β^- :68.83; β^- ,n:30.00; β^- ,2n:1.17; β^- , α :~	0	4.802E+06	4.802E+06	8.393E+05	NUBASE
0151	11-Na- 31	1.5+		0.017 s 2.35	β^- :62.05; β^- ,n:37.00; β^- ,2n:0.90; β^- ,3n:0.05	0	4.546E+06	4.546E+06	1.264E+06	NUBASE
0152	11-Na- 32	?		0.013 s 5.43	β^- :68.00; β^- ,n:24.00; β^- ,2n:8.00	0	5.626E+06	5.626E+06	1.089E+06	NUBASE
0153	11-Na- 33	1.5+		8.2E-03 s 2.44	β^- :40.00; β^- ,n:47.00; β^- ,2n:13.00	0	5.143E+06	5.143E+06	2.477E+06	NUBASE
0154	11-Na- 34	1.0+		5.5E-03 s 18.18	β^- :35.00; β^- ,2n:50.00; β^- ,n:15.00	0	5.733E+06	5.733E+06	2.939E+06	NUBASE
0155	11-Na- 35	1.5+		1.5E-03 s 33.33	β^- :100.00	0	7.810E+06	7.810E+06		NUBASE
0156	11-Na- 36	?		2.6E-07 s 100	n:100.00	0			2.987E+05	NUBASE
0157	11-Na- 37	1.5+		1E-03 s 100	β^- :100.00	0	8.677E+06	8.677E+06		NUBASE
0158	12-Mg- 20	0.0+		0.09 s 6.67	β^+ :69.60; β^+ ,p:30.40	0	3.136E+06	3.136E+06	6.482E+05	NUBASE
0159	12-Mg- 21	?		0.122 s 2.46	β^+ :66.90; β^+ ,p:32.60; β^+ ,n:0.50	0	3.798E+06	3.798E+06	8.773E+05	NUBASE
0160	12-Mg- 22	0.0+		3.857 s 0.23	β^+ :100.00	4	1.369E+06	1.723E+06		ENSDF
0161	12-Mg- 23	1.5+		11.317 s 0.10	β^+ :100.00	4	1.336E+06	1.057E+06		ENSDF
0162	12-Mg- 24	0.0+								NUBASE
0163	12-Mg- 25	2.5+								NUBASE
0164	12-Mg- 26	0.0+								NUBASE
0165	12-Mg- 27	0.5+		9.458 m ~	β^- :100.00	2	6.996E+05	8.950E+05		UKPADD64
0166	12-Mg- 28	0.0+		20.9 h ~	β^- :100.00	4	1.979E+05	1.380E+06		UKPADD64

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0210	14-Si- 29	0.5+								NUBASE
0211	14-Si- 30	0.0+								NUBASE
0212	14-Si- 31	1.5+		2.62 h ~	$\beta^-:100.00$	2	5.937E+05	2.172E+03		UKPADD64
0213	14-Si- 32	0.0+		132.003 y ~	$\beta^-:100.00$	1	6.468E+04			UKPADD64
0214	14-Si- 33	1.5+		6.18 s 2.91	$\beta^-:100.00$	0	1.948E+06	1.948E+06		NUBASE
0215	14-Si- 34	0.0+		2.77 s 7.22	$\beta^-:100.00$	0	1.534E+06	1.534E+06		NUBASE
0216	14-Si- 35	?		0.78 s 15.38	$\beta^-:100.00$	2	2.670E+06	4.472E+06	1.912E+03	ENSDF
0217	14-Si- 36	0.0+		0.45 s 13.33	$\beta^-:100.00$	2	3.068E+06	1.671E+06	1.462E+03	ENSDF
0218	14-Si- 37	3.5-		0.09 s 66.67	$\beta^-:83.00; \beta^-,n:17.00$	0	3.671E+06	3.671E+06	2.380E+05	NUBASE
0219	14-Si- 38	0.0+		0.09 s 100	$\beta^-:100.00$	0	3.563E+06	3.563E+06		NUBASE
0220	14-Si- 39	3.5-		0.09 s 100	$\beta^-:100.00$	0	4.933E+06	4.933E+06		NUBASE
0221	14-Si- 40	0.0+		0.033 s 3.03	$\beta^-:100.00$	0	4.527E+06	4.527E+06		NUBASE
0222	14-Si- 41	3.5-		0.03 s 100	$\beta^-:100.00$	0	6.280E+06	6.280E+06		NUBASE
0223	14-Si- 42	0.0+		5E-03 s 100	$\beta^-:100.00$	0	5.830E+06	5.830E+06		NUBASE
0224	14-Si- 43	1.5-		0.015 s 100	$\beta^-:100.00$	0	6.977E+06	6.977E+06		NUBASE
0225	14-Si- 44	0.0+		0.01 s 100	$\beta^-:100.00$	0	6.913E+06	6.913E+06		NUBASE
0226	15-P - 24	1.0+		1E-09 s 100	$p:50.00; \beta^+:50.00$	0	3.541E+06	3.541E+06	4.705E+05	NUBASE
0227	15-P - 25	0.5+		3E-08 s 100	$p:100.00$	0			8.260E+05	NUBASE
0228	15-P - 26	3.0+		0.03 s 83.33	$\beta^+:98.10; \beta^+,2p:1.00; \beta^+,p:0.90$	0	5.978E+06	5.978E+06	5.416E+04	NUBASE
0229	15-P - 27	0.5+		0.26 s 30.77	$\beta^+:99.93; \beta^+,p_m:0.07$	0	3.887E+06	3.887E+06	6.958E+02	NUBASE
0230	15-P - 28	3.0+		0.27 s 0.18	$\beta^+:100.00$	3	4.587E+06	4.729E+06	5.277E+03	ENSDF
0231	15-P - 29	0.5+		4.142 s 0.36	$\beta^+:100.00$	0	1.647E+06	1.647E+06		NUBASE
0232	15-P - 30	1.0+		2.498 m ~	$\beta^+:100.00$	4	1.435E+06	1.022E+06		ENSDF
0233	15-P - 31	0.5+								NUBASE
0234	15-P - 32	1.0+		14.27 d ~	$\beta^-:100.00$	1	6.929E+05	1.710E+03		UKPADD64
0235	15-P - 33	0.5+		25.383 d ~	$\beta^-:100.00$	1	7.640E+04			LNHB
0236	15-P - 34	1.0+		12.4 s 0.81	$\beta^-:100.00$	2	2.285E+06	3.475E+05		UKPADD64
0237	15-P - 35	0.5+		47.3 s 1.48	$\beta^-:100.00$	0	1.330E+06	1.330E+06		NUBASE
0238	15-P - 36	4.0-		5.6 s 5.36	$\beta^-:100.00$	0	3.471E+06	3.471E+06		NUBASE
0239	15-P - 37	0.5+		2.31 s 5.63	$\beta^-:100.00$	0	2.635E+06	2.635E+06		NUBASE
0240	15-P - 38	?		0.64 s 21.88	$\beta^-:100.00$	2	4.290E+06	2.778E+06	3.221E+03	ENSDF
0241	15-P - 39	0.5+		0.19 s 26.32	$\beta^-:74.00; \beta^-,n:26.00$	0	2.923E+06	2.923E+06	3.848E+05	NUBASE
0242	15-P - 40	?		0.15 s 5.33	$\beta^-:84.20; \beta^-,n:15.80$	0	4.418E+06	4.418E+06	2.757E+05	NUBASE
0243	15-P - 41	0.5+		0.15 s 10	$\beta^-:70.00; \beta^-,n:30.00$	0	3.920E+06	3.920E+06	7.139E+05	NUBASE
0244	15-P - 42	?		0.12 s 25	$\beta^-:50.00; \beta^-,n:50.00$	0	4.589E+06	4.589E+06	1.486E+06	NUBASE
0245	15-P - 43	0.5+		0.033 s 9.09	$\beta^-,n:100.00$	0	3.845E+06	3.845E+06	3.845E+06	NUBASE
0246	15-P - 44	?		0.03 s 100	$\beta^-:100.00$	0	7.073E+06	7.073E+06		NUBASE
0247	15-P - 45	0.5+		8E-03 s 100	$\beta^-:100.00$	0	7.050E+06	7.050E+06		NUBASE
0248	15-P - 46	?		4E-03 s 100	$\beta^-:100.00$	0	8.267E+06	8.267E+06		NUBASE
0249	16-S - 26	0.0+		0.01 s 100	$2p:100.00$	0			6.370E+05	NUBASE
0250	16-S - 27	2.5+		0.021 s 19.05	$\beta^+:98.00; \beta^+,2p:2.00$	0	6.023E+06	6.023E+06	5.939E+04	NUBASE
0251	16-S - 28	0.0+		0.125 s 8	$\beta^+:79.30; \beta^+,p:20.70$	0	3.442E+06	3.442E+06	4.743E+05	NUBASE
0252	16-S - 29	2.5+		0.187 s 2.14	$\beta^+:53.60; \beta^+,p:46.40$	0	3.745E+06	3.745E+06	1.281E+06	NUBASE
0253	16-S - 30	0.0+		1.178 s 0.42	$\beta^+:100.00$	4	2.084E+06	1.608E+06		ENSDF
0254	16-S - 31	0.5+		2.572 s 0.51	$\beta^+:100.00$	4	1.996E+06	1.038E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0255	16-S - 32	0.0+								NUBASE
0256	16-S - 33	1.5+								NUBASE
0257	16-S - 34	0.0+								NUBASE
0258	16-S - 35	1.5+		87.32 d ~	β^- :100.00	1	4.872E+04			LNHB
0259	16-S - 36	0.0+								NUBASE
0260	16-S - 37	3.5-		4.99 m 0.01	β^- :100.00	2	7.932E+05	2.937E+06		UKPADD64
0261	16-S - 38	0.0+		2.838 h ~	β^- :100.00	2	4.890E+05	1.695E+06		ENSDF
0262	16-S - 39	?		11.5 s 4.35	β^- :100.00	2	2.256E+06	1.783E+06		ENSDF
0263	16-S - 40	0.0+		8.8 s 25	β^- :100.00	2	1.445E+06	1.471E+06		ENSDF
0264	16-S - 41	3.5-		1.99 s 2.51	β^- :100.00	0	2.763E+06	2.763E+06		NUBASE
0265	16-S - 42	0.0+		1.013E-03 s 1.48	β^- :96.00; β^- ,n:4.00	0	2.329E+06	2.329E+06	1.559E+04	NUBASE
0266	16-S - 43	1.5-		0.26 s 5.77	β^- :60.00; β^- ,n:40.00	0	2.927E+06	2.927E+06	4.869E+05	NUBASE
0267	16-S - 44	0.0+		0.123 s 8.13	β^- :82.00; β^- ,n:18.00	0	3.351E+06	3.351E+06	3.140E+05	NUBASE
0268	16-S - 45	1.5-		0.082 s 15.85	β^- :46.00; β^- ,n:54.00	0	3.520E+06	3.520E+06	1.203E+06	NUBASE
0269	16-S - 46	0.0+		0.03 s 100	β^- :100.00	0	5.137E+06	5.137E+06		NUBASE
0270	16-S - 47	1.5-		0.02 s 100	β^- :100.00	0	6.173E+06	6.173E+06		NUBASE
0271	16-S - 48	0.0+		0.01 s 100	β^- :100.00	0	5.967E+06	5.967E+06		NUBASE
0272	16-S - 49	1.5-		2E-07 s 100	n:100.00	0			7.287E+05	NUBASE
0273	17-Cl- 28	1.0+		1E-09 s 100	p:100.00	0			1.731E+06	NUBASE
0274	17-Cl- 29	1.5+		2E-08 s 100	p:100.00	0			1.781E+06	NUBASE
0275	17-Cl- 30	3.0+		3E-08 s 100	p:100.00	0			3.110E+05	NUBASE
0276	17-Cl- 31	1.5+		0.15 s 16.67	β^+ :99.30; β^+ ,p:0.70	0	3.974E+06	3.974E+06	1.022E+04	NUBASE
0277	17-Cl- 32	1.0+		0.298 s 0.34	β^+ :99.92; β^+ ,n:0.05; β^+ ,p:0.03	0	4.226E+06	4.226E+06	1.023E+03	NUBASE
0278	17-Cl- 33	1.5+		2.511 s 0.12	β^+ :100.00	4	2.082E+06	1.048E+06		ENSDF
0279	17-Cl- 34	0.0+		1.526 s 0.20	β^+ :100.00	3	2.044E+06	1.029E+06		UKPADD64
0280	17-Cl- 34M	3.0+	1.464E+05	32.1 m 0.01	β^+ :52.00; IT:48.00	4	4.414E+05	1.979E+06		UKPADD64
0281	17-Cl- 35	1.5+								NUBASE
0282	17-Cl- 36	2.0+		3.01E+05 y ~	β^+ :1.90; β^- :98.10	4	2.731E+05	1.833E+01		LNHB
0283	17-Cl- 37	1.5+								NUBASE
0284	17-Cl- 38	2.0-		37.2 m ~	β^- :100.00	2	1.523E+06	1.494E+06		UKPADD64
0285	17-Cl- 38M	5.0-	6.713E+05	0.715 s 0.42	IT:100.00	3	4.295E+02	6.713E+05		UKPADD64
0286	17-Cl- 39	1.5+		55.6 m 0.01	β^- :100.00	2	8.230E+05	1.451E+06		ENSDF
0287	17-Cl- 40	2.0-		1.35 m 0.02	β^- :100.00	2	1.519E+06	4.081E+06		ENSDF
0288	17-Cl- 41	?		38.4 s 2.08	β^- :100.00	0	1.919E+06	1.919E+06		NUBASE
0289	17-Cl- 42	?		6.8 s 4.41	β^- :100.00	0	3.171E+06	3.171E+06		NUBASE
0290	17-Cl- 43	1.5+		3.07 s 2.28	β^- :100.00	0	2.613E+06	2.613E+06		NUBASE
0291	17-Cl- 44	?		0.56 s 19.64	β^- :92.00; β^- ,n:8.00	0	3.890E+06	3.890E+06	7.417E+04	NUBASE
0292	17-Cl- 45	1.5+		0.4 s 10	β^- :76.00; β^- ,n:24.00	0	3.265E+06	3.265E+06	3.745E+05	NUBASE
0293	17-Cl- 46	?		0.22 s 18.18	β^- :40.00; β^- ,n:60.00	0	3.050E+06	3.050E+06	1.048E+06	NUBASE
0294	17-Cl- 47	1.5+		0.2 s 100	β^- :97.00; β^- ,n:3.00	0	5.060E+06	5.060E+06	8.347E+04	NUBASE
0295	17-Cl- 48	?		0.1 s 100	β^- :100.00	0	6.340E+06	6.340E+06		NUBASE
0296	17-Cl- 49	1.5+		0.05 s 100	β^- :100.00	0	6.150E+06	6.150E+06		NUBASE
0297	17-Cl- 50	?		0.02 s 100	β^- :100.00	0	7.267E+06	7.267E+06		NUBASE
0298	17-Cl- 51	1.5+		2E-03 s 100	β^- :100.00	0	7.100E+06	7.100E+06		NUBASE
0299	18-Ar- 30	0.0+		2E-08 s 100	2p:100.00	0			1.432E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0300	18-Ar- 31	2.5+		0.014 s 4.17	β^+ :28.40; β^+ ,p:63.00; β^+ ,2p:7.20; β^+ ,3p:1.40	0	4.867E+06	4.867E+06	3.129E+06	NUBASE
0301	18-Ar- 32	0.0+		0.098 s 2.04	β^+ :57.00; β^+ ,p:43.00	0	3.142E+06	3.142E+06	1.027E+06	NUBASE
0302	18-Ar- 33	0.5+		0.173 s 1.16	β^+ :61.30; β^+ ,p:38.70	0	3.278E+06	3.278E+06	9.039E+05	NUBASE
0303	18-Ar- 34	0.0+		0.845 s 0.40	β^+ :100.00	4	2.289E+06	1.105E+06		ENSDF
0304	18-Ar- 35	1.5+		1.775 s 0.23	β^+ :100.00	4	2.265E+06	1.050E+06		ENSDF
0305	18-Ar- 36	0.0+								NUBASE
0306	18-Ar- 37	1.5+		35.04 d ~	β^+ :100.00	3	1.950E+03	2.229E+02		LNHB
0307	18-Ar- 38	0.0+								NUBASE
0308	18-Ar- 39	3.5-		269.006 y ~	β^- :100.00	1	2.187E+05			UKPADD64
0309	18-Ar- 40	0.0+								NUBASE
0310	18-Ar- 41	3.5-		1.827 h ~	β^- :100.00	4	4.636E+05	1.284E+06		UKPADD64
0311	18-Ar- 42	0.0+		33.001 y ~	β^- :100.00	1	2.328E+05			UKPADD64
0312	18-Ar- 43	2.5-		5.37 m 0.02	β^- :100.00	2	1.378E+06	1.490E+06		ENSDF
0313	18-Ar- 44	0.0+		11.87 m 0.01	β^- :100.00	0	1.046E+06	1.046E+06		NUBASE
0314	18-Ar- 45	?		21.48 s 0.70	β^- :100.00	0	2.279E+06	2.279E+06		NUBASE
0315	18-Ar- 46	0.0+		8.4 s 7.14	β^- :100.00	0	1.899E+06	1.899E+06		NUBASE
0316	18-Ar- 47	1.5-		0.58 s 20.69	β^- :99.00; β^- ,n:1.00	0	3.233E+06	3.233E+06	3.592E+03	NUBASE
0317	18-Ar- 48	0.0+		0.5 s 100	β^- :100.00	0	2.801E+06	2.801E+06		NUBASE
0318	18-Ar- 49	1.5-		0.17 s 29.41	β^- :35.00; β^- ,n:65.00	0	2.379E+06	2.379E+06	9.592E+05	NUBASE
0319	18-Ar- 50	0.0+		0.085 s 35.29	β^- :65.00; β^- ,n:35.00	0	3.029E+06	3.029E+06	6.780E+05	NUBASE
0320	18-Ar- 51	1.5-		0.06 s 100	β^- :100.00	0	4.733E+06	4.733E+06		NUBASE
0321	18-Ar- 52	0.0+		0.01 s 100	β^- :100.00	0	4.400E+06	4.400E+06		NUBASE
0322	18-Ar- 53	2.5-		3E-03 s 100	β^- :100.00	0	5.533E+06	5.533E+06		NUBASE
0323	19-K - 32	1.0+		1E-09 s 100	p:100.00	0			1.841E+06	NUBASE
0324	19-K - 33	1.5+		2.5E-08 s 100	p:100.00	0			1.671E+06	NUBASE
0325	19-K - 34	1.0+		4E-08 s 100	p:100.00	0			6.151E+05	NUBASE
0326	19-K - 35	1.5+		0.178 s 4.49	β^+ :100.00	4	3.589E+06	4.268E+06	2.766E+03	ENSDF
0327	19-K - 36	2.0+		0.342 s 0.58	β^+ :100.00	4	3.470E+06	5.449E+06	2.807E+03	ENSDF
0328	19-K - 37	1.5+		1.226 s 0.57	β^+ :100.00	4	2.347E+06	1.072E+06		ENSDF
0329	19-K - 38	3.0+		7.61 m 0.01	β^+ :100.00	4	1.201E+06	3.190E+06		UKPADD64
0330	19-K - 38M	0.0+	1.304E+05	0.924 s 0.22	β^+ :100.00	3	2.312E+06	1.031E+06		UKPADD64
0331	19-K - 39	1.5+								NUBASE
0332	19-K - 40	4.0-		1.265E+09 y ~	β^+ :10.86; β^- :89.14	5	4.534E+05	1.558E+05		LNHB
0333	19-K - 41	1.5+								NUBASE
0334	19-K - 42	2.0-		12.359 h ~	β^- :100.00	4	1.421E+06	2.760E+05		LNHB
0335	19-K - 43	1.5+		22.2 h ~	β^- :100.00	4	3.096E+05	9.662E+05		UKPADD64
0336	19-K - 44	2.0-		22.13 m 0.01	β^- :100.00	4	1.436E+06	2.391E+06		UKPADD64
0337	19-K - 45	1.5+		17.3 m 0.06	β^- :100.00	4	9.865E+05	1.834E+06		ENSDF
0338	19-K - 46	2.0-		1.75 m 0.16	β^- :100.00	2	2.321E+06	2.651E+06		ENSDF
0339	19-K - 47	0.5+		17.5 s 1.37	β^- :100.00	2	1.809E+06	2.624E+06		ENSDF
0340	19-K - 48	2.0-		6.8 s 2.94	β^- :100.00	2	2.658E+06	6.450E+06	1.571E+03	ENSDF
0341	19-K - 49	1.5+		1.26 s 3.97	β^- :14.00; β^- ,n:86.00	0	1.764E+06	1.764E+06	1.252E+06	NUBASE
0342	19-K - 50	?		0.472 s 0.85	β^- :71.00; β^- ,n:29.00	0	3.936E+06	3.936E+06	5.704E+05	NUBASE
0343	19-K - 51	1.5+		0.365 s 1.37	β^- :53.00; β^- ,n:47.00	0	3.565E+06	3.565E+06	1.116E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0344	19-K - 52	2.0-		0.105 s 4.76	β^- :15.00; β^- ,n:64.00; β^- ,2n:21.00	0	3.049E+06	3.049E+06	2.234E+06	NUBASE
0345	19-K - 53	1.5+		0.03 s 16.67	β^- :16.00; β^- ,n:67.00; β^- ,2n:17.00	0	3.259E+06	3.259E+06	2.411E+06	NUBASE
0346	19-K - 54	2.0-		0.01 s 50	β^- :100.00	0	6.163E+06	6.163E+06		NUBASE
0347	19-K - 55	1.5+		3E-03 s 100	β^- :100.00	0	5.950E+06	5.950E+06		NUBASE
0348	20-Ca- 34	0.0+		3.5E-08 s 100	2p:100.00	0			7.722E+05	NUBASE
0349	20-Ca- 35	0.5+		0.026 s 0.78	β^+ :0.10; β^+ ,p:95.70; β^+ ,2p:4.20	0	3.874E+06	3.874E+06	3.869E+06	NUBASE
0350	20-Ca- 36	0.0+		0.102 s 1.96	β^+ :43.20; β^+ ,p:56.80	0	2.905E+06	2.905E+06	1.323E+06	NUBASE
0351	20-Ca- 37	1.5+		0.181 s 0.55	β^+ :17.90; β^+ ,p:82.10	0	2.702E+06	2.702E+06	2.007E+06	NUBASE
0352	20-Ca- 38	0.0+		0.44 s 1.82	β^+ :0.02; β^+ ,m:99.98	4	2.433E+06	1.374E+06	1.000E+03	ENSDF
0353	20-Ca- 39	1.5+		0.86 s 0.16	β^+ :100.00	4	2.561E+06	1.022E+06		ENSDF
0354	20-Ca- 40	0.0+								NUBASE
0355	20-Ca- 41	3.5-		1.03E+05 y ~	β^+ :100.00	3	2.843E+03	4.371E+02		UKPADD64
0356	20-Ca- 42	0.0+								NUBASE
0357	20-Ca- 43	3.5-								NUBASE
0358	20-Ca- 44	0.0+								NUBASE
0359	20-Ca- 45	3.5-		163 d ~	β^- :100.00; β^- ,m:~	4	7.720E+04	9.543E-03		LNHB
0360	20-Ca- 46	0.0+								NUBASE
0361	20-Ca- 47	3.5-		4.538 d ~	β^- :100.00	4	3.446E+05	1.060E+06		UKPADD64
0362	20-Ca- 48	0.0+		5.3E+19 y ~	2 β^- :50.00; β^- :50.00	0	2.184E+06	4.700E+04		NUBASE
0363	20-Ca- 49	1.5-		8.72 m ~	β^- :100.00	2	8.695E+05	3.167E+06		UKPADD64
0364	20-Ca- 50	0.0+		13.9 s 4.32	β^- ,m:100.00	0	1.570E+06	1.570E+06		NUBASE
0365	20-Ca- 51	1.5-		10 s 8	β^- :100.00	0	2.453E+06	2.453E+06		NUBASE
0366	20-Ca- 52	0.0+		4.6 s 6.52	β^- :98.00; β^- ,n:2.00	0	2.578E+06	2.578E+06	1.318E+04	NUBASE
0367	20-Ca- 53	1.5-		0.09 s 16.67	β^- :70.00; β^- ,n:30.00	0	2.597E+06	2.597E+06	3.292E+05	NUBASE
0368	20-Ca- 54	0.0+		0.05 s 100	β^- :100.00	0	3.443E+06	3.443E+06		NUBASE
0369	20-Ca- 55	2.5-		0.03 s 100	β^- :100.00	0	3.820E+06	3.820E+06		NUBASE
0370	20-Ca- 56	0.0+		0.01 s 100	β^- :100.00	0	3.943E+06	3.943E+06		NUBASE
0371	20-Ca- 57	2.5-		5E-03 s 100	β^- :100.00	0	4.523E+06	4.523E+06		NUBASE
0372	21-Sc- 36	?		1E-09 s 100	p:100.00	0			2.011E+06	NUBASE
0373	21-Sc- 37	3.5-		1E-09 s 100	p:100.00	0			1.991E+06	NUBASE
0374	21-Sc- 38	2.0-		3E-07 s 100	p:100.00	0			9.330E+05	NUBASE
0375	21-Sc- 39	3.5-		3E-07 s 100	p:100.00	0			6.020E+05	NUBASE
0376	21-Sc- 40	4.0-		0.182 s 0.38	β^+ :100.00	4	3.399E+06	7.119E+06	2.772E+03	ENSDF
0377	21-Sc- 41	3.5-		0.596 s 0.29	β^+ :100.00	4	2.541E+06	1.022E+06		ENSDF
0378	21-Sc- 42	0.0+		0.681 s 0.04	β^+ :100.00	4	2.508E+06	1.021E+06		ENSDF
0379	21-Sc- 42M	7.0+	6.163E+05	1.033 m 0.01	β^+ :100.00	4	1.256E+06	4.204E+06		ENSDF
0380	21-Sc- 43	3.5-		3.891 h ~	β^+ :100.00	4	4.198E+05	9.848E+05		ENSDF
0381	21-Sc- 44	2.0+		3.97 h ~	β^+ :100.00	4	5.960E+05	2.136E+06		LNHB
0382	21-Sc- 44M	6.0+	2.711E+05	2.442 d ~	β^+ :1.23; IT:98.77	4	3.282E+04	2.753E+05		UKPADD64
0383	21-Sc- 45	3.5-								NUBASE
0384	21-Sc- 45M	1.5+	1.240E+04	0.318 s 2.20	IT:100.00	0		1.240E+04		NUBASE
0385	21-Sc- 46	4.0+		83.788 d ~	β^- :100.00	4	1.121E+05	2.010E+06		LNHB
0386	21-Sc- 46M	1.0-	1.425E+05	18.7 s 0.37	IT:100.00	3	5.890E+04	8.296E+04		UKPADD64

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0387	21-Sc- 47	3.5-		3.351 d ~	β^- :100.00	4	1.626E+05	1.084E+05		LNHB
0388	21-Sc- 48	6.0+		1.82 d ~	β^- :100.00	2	2.196E+05	3.350E+06		UKPADD64
0389	21-Sc- 49	3.5-		57.2 m 0.01	β^- :100.00	2	8.199E+05	3.340E+03		UKPADD64
0390	21-Sc- 50	5.0+		1.708 m 0.01	β^- :100.00	2	1.624E+06	3.198E+06		UKPADD64
0391	21-Sc- 50M	2.0+	2.569E+05	0.35 s 8.57	β^- :1.25; IT:98.75	4	4.069E+04	2.644E+05		UKPADD64
0392	21-Sc- 51	3.5-		12.4 s 0.81	β^- :100.00	2	1.841E+06	2.350E+06		ENSDF
0393	21-Sc- 52	3.0+		8.2 s 2.44	β^- :100.00	2	2.849E+06	2.893E+06	1.165E+03	ENSDF
0394	21-Sc- 53	3.5-		3 s 100	β^- :100.00	0	3.070E+06	3.070E+06		NUBASE
0395	21-Sc- 54	3.0+		0.26 s 11.54	β^- :100.00	0	3.790E+06	3.790E+06		NUBASE
0396	21-Sc- 55	3.5-		0.12 s 33.33	β^- :100.00	0	4.030E+06	4.030E+06		NUBASE
0397	21-Sc- 56	3.0+		0.08 s 100	β^- :100.00	0	4.557E+06	4.557E+06		NUBASE
0398	21-Sc- 57	3.5-		0.013 s 30.77	β^- :67.00; β^- ,n:33.00	0	3.710E+06	3.710E+06	8.397E+05	NUBASE
0399	21-Sc- 58	3.0+		0.012 s 41.67	β^- :100.00	0	5.200E+06	5.200E+06		NUBASE
0400	21-Sc- 59	3.5-		0.01 s 100	β^- :100.00	0	5.060E+06	5.060E+06		NUBASE
0401	21-Sc- 60	3.0+		3E-03 s 100	β^- :100.00	0	5.883E+06	5.883E+06		NUBASE
0402	22-Ti- 38	0.0+		1.2E-07 s 100	2p:100.00	0			9.620E+05	NUBASE
0403	22-Ti- 39	1.5+		0.031 s 12.90	β^+ :~; β^+ ,p:85.00; β^+ ,2p:15.00	0	3.897E+06	3.897E+06	3.897E+06	NUBASE
0404	22-Ti- 40	0.0+		0.053 s 2.81	β^+ ,p:100.00	0	2.784E+06	2.784E+06	2.784E+06	NUBASE
0405	22-Ti- 41	1.5+		0.081 s 1.48	β^+ ,p:100.00	0	2.964E+06	2.964E+06	2.964E+06	NUBASE
0406	22-Ti- 42	0.0+		0.199 s 3.02	β^+ :100.00	4	2.637E+06	1.385E+06	1.014E+03	ENSDF
0407	22-Ti- 43	3.5-		0.509 s 0.98	β^+ :100.00	4	2.637E+06	1.202E+06		ENSDF
0408	22-Ti- 44	0.0+		60 y ~	β^+ :100.00	4	1.063E+04	1.383E+05		LNHB
0409	22-Ti- 45	3.5-		3.08 h ~	β^+ :100.00	4	3.733E+05	8.718E+05		UKPADD64
0410	22-Ti- 46	0.0+								NUBASE
0411	22-Ti- 47	2.5-								NUBASE
0412	22-Ti- 48	0.0+								NUBASE
0413	22-Ti- 49	3.5-								NUBASE
0414	22-Ti- 50	0.0+								NUBASE
0415	22-Ti- 51	1.5-		5.8 m 0.01	β^- :100.00	4	8.689E+05	3.646E+05		UKPADD64
0416	22-Ti- 52	0.0+		1.7 m 0.10	β^- :100.00	4	7.546E+05	1.284E+05		ENSDF
0417	22-Ti- 53	1.5-		32.7 s 2.75	β^- :100.00	0	1.673E+06	1.673E+06		NUBASE
0418	22-Ti- 54	0.0+		1.5 s 26.67	β^- :100.00	0	1.434E+06	1.434E+06		NUBASE
0419	22-Ti- 55	1.5-		0.49 s 18.37	β^- :100.00	0	2.493E+06	2.493E+06		NUBASE
0420	22-Ti- 56	0.0+		0.164 s 14.63	β^- :100.00	0	2.380E+06	2.380E+06		NUBASE
0421	22-Ti- 57	2.5-		0.06 s 26.67	β^- :99.70; β^- ,n:0.30	0	3.543E+06	3.543E+06	3.352E+03	NUBASE
0422	22-Ti- 58	0.0+		0.054 s 12.96	β^- :100.00	0	3.147E+06	3.147E+06		NUBASE
0423	22-Ti- 59	2.5-		0.03 s 8.33	β^- :100.00	0	3.950E+06	3.950E+06		NUBASE
0424	22-Ti- 60	0.0+		0.022 s 9.09	β^- :100.00	0	3.643E+06	3.643E+06		NUBASE
0425	22-Ti- 61	0.5-		0.01 s 100	β^- :100.00	0	4.570E+06	4.570E+06		NUBASE
0426	22-Ti- 62	0.0+		0.01 s 100	β^- :100.00	0	4.257E+06	4.257E+06		NUBASE
0427	22-Ti- 63	0.5-		3E-03 s 100	β^- :100.00	0	5.237E+06	5.237E+06		NUBASE
0428	23-V - 40	2.0-		1E-09 s 100	p:100.00	0			1.541E+06	NUBASE
0429	23-V - 41	3.5-		1E-09 s 100	p:100.00	0			1.351E+06	NUBASE
0430	23-V - 42	2.0-		5.5E-08 s 100	p:100.00	0			2.410E+05	NUBASE
0431	23-V - 43	3.5-		0.08 s 100	β^+ :100.00	0	3.767E+06	3.767E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0432	23-V - 44	2.0+		0.111 s 6.31	β^+ :100.00	4	4.349E+06	4.526E+06	2.991E+03	ENSDF
0433	23-V - 44M	6.0+	2.700E+05	0.15 s 2	β^+ :100.00	0	4.566E+06	4.566E+06		NUBASE
0434	23-V - 45	3.5-		0.539 s 3.34	β^+ :100.00	4	2.854E+06	1.022E+06	1.038E+03	ENSDF
0435	23-V - 46	0.0+		0.423 s 0.03	β^+ :100.00	4	2.814E+06	1.022E+06		ENSDF
0436	23-V - 46M	3.0+	8.011E+05	1.02E-03 s 6.86	IT:100.00	1		8.011E+05		ENSDF
0437	23-V - 47	1.5-		32.6 m 0.02	β^+ :100.00	4	8.031E+05	9.950E+05		ENSDF
0438	23-V - 48	4.0+		15.974 d ~	β^+ :100.00	4	1.493E+05	2.916E+06		UKPADD64
0439	23-V - 49	3.5-		330 d ~	β^+ :100.00	3	3.583E+03	9.469E+02		UKPADD64
0440	23-V - 50	6.0+		1.4E+17 y ~	β^+ :83.00; β^- :17.00	5	1.568E+04	1.423E+06		ENSDF
0441	23-V - 51	3.5-								NUBASE
0442	23-V - 52	3.0+		3.745 m ~	β^- :100.00	4	1.064E+06	1.448E+06		UKPADD64
0443	23-V - 53	3.5-		1.62 m 0.04	β^- :100.00	2	1.005E+06	1.042E+06		UKPADD64
0444	23-V - 54	3.0+		49.8 s 1	β^- :100.00	2	1.358E+06	4.098E+06		UKPADD64
0445	23-V - 55	3.5-		6.54 s 2.29	β^- :100.00	2	2.382E+06	6.892E+05		ENSDF
0446	23-V - 56	1.0+		0.216 s 1.85	β^- :100.00	0	3.067E+06	3.067E+06		NUBASE
0447	23-V - 57	1.5-		0.35 s 2.86	β^- :99.60; β^- ,n:0.40	0	2.770E+06	2.770E+06	3.020E+03	NUBASE
0448	23-V - 58	3.0+		0.191 s 4.19	β^- :20.00; β^- ,n:80.00	0	1.623E+06	1.623E+06	8.486E+05	NUBASE
0449	23-V - 59	3.5-		0.075 s 9.33	β^- :100.00	0	3.607E+06	3.607E+06		NUBASE
0450	23-V - 60	3.0+		0.122 s 14.75	β^- :100.00	0	4.640E+06	4.640E+06		NUBASE
0451	23-V - 61	3.5-		0.047 s 2.55	β^- :94.00; β^- ,n:6.00	0	4.153E+06	4.153E+06	1.360E+05	NUBASE
0452	23-V - 62	3.0+		0.034 s 5.97	β^- :100.00	0	5.330E+06	5.330E+06		NUBASE
0453	23-V - 63	3.5-		0.017 s 17.65	β^- :65.00; β^- ,n:35.00	0	4.168E+06	4.168E+06	1.000E+06	NUBASE
0454	23-V - 64	?		0.01 s 100	β^- :100.00	0	5.917E+06	5.917E+06		NUBASE
0455	23-V - 65	2.5-		0.01 s 100	β^- :100.00	0	5.517E+06	5.517E+06		NUBASE
0456	24-Cr- 42	0.0+		0.014 s 21.43	β^+ :100.00	0	4.720E+06	4.720E+06		NUBASE
0457	24-Cr- 43	1.5+		0.022 s 3.24	β^+ :71.00; β^+ ,p:23.00; β^+ ,2p:6.00	0	4.843E+06	4.843E+06	1.082E+06	NUBASE
0458	24-Cr- 44	0.0+		0.054 s 7.41	β^+ :93.00; β^+ ,p:7.00	0	3.455E+06	3.455E+06	1.500E+05	NUBASE
0459	24-Cr- 45	3.5-		0.05 s 12	β^+ :73.00; β^+ ,p:27.00	0	3.903E+06	3.903E+06	7.620E+05	NUBASE
0460	24-Cr- 45M	1.5+	5.000E+04	1E-03 s 100	IT:50.00; β^+ :50.00	0	2.160E+06	2.185E+06		NUBASE
0461	24-Cr- 46	0.0+		0.26 s 23.08	β^+ :100.00	3	3.089E+06	1.022E+06	1.168E+03	ENSDF
0462	24-Cr- 47	1.5-		0.5 s 3	β^+ :100.00	4	3.012E+06	1.025E+06	1.093E+03	ENSDF
0463	24-Cr- 48	0.0+		21.56 h ~	β^+ :100.00	4	8.222E+03	4.331E+05		ENSDF
0464	24-Cr- 49	2.5-		41.9 m 0.01	β^+ :100.00	4	5.965E+05	1.047E+06		UKPADD64
0465	24-Cr- 50	0.0+		1.8E+17 y ~	2 β^+ :100.00	0	1.167E+06			NUBASE
0466	24-Cr- 51	3.5-		27.703 d ~	β^+ :100.00	4	3.665E+03	3.271E+04		LNHB
0467	24-Cr- 52	0.0+								NUBASE
0468	24-Cr- 53	1.5-								NUBASE
0469	24-Cr- 54	0.0+								NUBASE
0470	24-Cr- 55	1.5-		3.54 m 0.01	β^- :100.00	4	1.097E+06	4.243E+03		UKPADD64
0471	24-Cr- 56	0.0+		5.94 m 0.03	β^- :100.00	4	6.067E+05	9.169E+04		ENSDF
0472	24-Cr- 57	?		21.1 s 4.74	β^- :100.00	4	1.949E+06	4.622E+05		ENSDF
0473	24-Cr- 58	0.0+		7 s 4.29	β^- :100.00	0	1.360E+06	1.360E+06		NUBASE
0474	24-Cr- 59	2.5-		0.46 s 10.87	β^- :100.00	0	2.530E+06	2.530E+06		NUBASE
0475	24-Cr- 60	0.0+		0.56 s 10.71	β^- :100.00	0	2.227E+06	2.227E+06		NUBASE
0476	24-Cr- 61	2.5-		0.261 s 5.75	β^- :100.00	0	3.127E+06	3.127E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0477	24-Cr- 62	0.0+		0.199 s 4.52	β^- :50.00; β^-_m :50.00	0	2.543E+06	2.543E+06		NUBASE
0478	24-Cr- 63	0.5-		0.129 s 1.55	β^- :100.00	0	3.607E+06	3.607E+06		NUBASE
0479	24-Cr- 64	0.0+		0.043 s 2.33	β^- :100.00	0	3.157E+06	3.157E+06		NUBASE
0480	24-Cr- 65	0.5-		0.027 s 11.11	β^- :100.00	0	4.290E+06	4.290E+06		NUBASE
0481	24-Cr- 66	0.0+		0.01 s 60	β^- :100.00	0	3.817E+06	3.817E+06		NUBASE
0482	24-Cr- 67	0.5-		0.01 s 100	β^- :100.00	0	4.783E+06	4.783E+06		NUBASE
0483	25-Mn- 44	2.0-		1.05E-07 s 100	p:100.00	0			1.241E+06	NUBASE
0484	25-Mn- 45	3.5-		7E-08 s 100	p:100.00	0			1.061E+06	NUBASE
0485	25-Mn- 46	4.0+		0.037 s 8.11	β^+ :60.00; β^+ ,p:22.00; β^+ ,2p:18.00	0	4.570E+06	4.570E+06	1.149E+06	NUBASE
0486	25-Mn- 46M	1.0-	1.500E+05	1E-03 s 100	β^+ :100.00	0	5.751E+06	5.751E+06		NUBASE
0487	25-Mn- 47	2.5-		0.1 s 50	β^+ :96.60; β^+ ,p:1.70; β^+ ,p _m :1.70	0	4.020E+06	4.020E+06	6.055E+04	NUBASE
0488	25-Mn- 48	4.0+		0.158 s 1.39	β^+ :99.72; β^+ ,p:0.28; β^+ ,n:~	0	4.491E+06	4.491E+06	3.784E+03	NUBASE
0489	25-Mn- 49	2.5-		0.382 s 1.83	β^+ :100.00	4	3.105E+06	1.094E+06	1.119E+03	ENSDF
0490	25-Mn- 50	0.0+		0.284 s 0.16	β^+ :100.00	4	3.100E+06	1.021E+06	1.083E+03	ENSDF
0491	25-Mn- 50M	5.0+	2.290E+05	1.75 m 0.03	β^+ :100.00	0	2.621E+06	2.621E+06		NUBASE
0492	25-Mn- 51	2.5-		46.2 m ~	β^+ :100.00	4	9.350E+05	9.977E+05		ENSDF
0493	25-Mn- 52	6.0+		5.595 d ~	β^+ :100.00	4	7.156E+04	3.461E+06		LNHB
0494	25-Mn- 52M	2.0+	3.777E+05	21.2 m 0.03	β^+ :98.25; IT:1.75	4	1.133E+06	2.409E+06		LNHB
0495	25-Mn- 53	3.5-		3.68E+06 y ~	β^+ :100.00	3	4.002E+03	1.422E+03		UKPADD64
0496	25-Mn- 54	3.0+		312.13 d ~	β^+ :100.00	4	4.027E+03	8.360E+05		LNHB
0497	25-Mn- 55	2.5-								NUBASE
0498	25-Mn- 56	3.0+		2.582 h ~	β^- :100.00	4	8.212E+05	1.710E+06		LNHB
0499	25-Mn- 57	2.5-		1.423 m 0.04	β^- :100.00	4	1.104E+06	9.963E+04		ENSDF
0500	25-Mn- 58	3.0+		1.087 m 0.01	β^- :100.00	4	1.711E+06	2.382E+06		UKPADD64
0501	25-Mn- 58M	0.0+	7.300E+04	2.7 s 22.22	β^- :100.00	4	2.828E+06	1.201E+05		UKPADD64
0502	25-Mn- 59	2.5-		4.59 s 1.09	β^- :100.00	4	2.060E+06	5.379E+05		ENSDF
0503	25-Mn- 60	0.0+		51 s 11.76	β^- :100.00	1	3.840E+06		1.215E+03	ENSDF
0504	25-Mn- 60M	3.0+	2.719E+05	1.77 s 1.13	β^- :88.50; IT:11.50	0	2.509E+06	2.540E+06		NUBASE
0505	25-Mn- 61	2.5-		0.67 s 5.97	β^- :100.00	2	3.256E+06	1.303E+05		ENSDF
0506	25-Mn- 62	3.0+		0.88 s 17.05	β^- :100.00	2	3.803E+06	2.148E+06	1.552E+03	ENSDF
0507	25-Mn- 62M	1.0+	1.000E+03	0.092 s 14.13	β^- :100.00	0	3.621E+06	3.621E+06		NUBASE
0508	25-Mn- 63	2.5-		0.275 s 1.45	β^- :100.00	0	3.067E+06	3.067E+06		NUBASE
0509	25-Mn- 64	1.0+		0.089 s 2.82	β^- :100.00	0	4.050E+06	4.050E+06		NUBASE
0510	25-Mn- 65	2.5-		0.092 s 1.09	β^- :100.00	0	3.403E+06	3.403E+06		NUBASE
0511	25-Mn- 66	?		0.064 s 2.80	β^- :100.00	0	4.440E+06	4.440E+06		NUBASE
0512	25-Mn- 67	2.5-		0.045 s 8.89	β^- :100.00	0	4.097E+06	4.097E+06		NUBASE
0513	25-Mn- 68	?		0.028 s 14.29	β^- :100.00	0	4.843E+06	4.843E+06		NUBASE
0514	25-Mn- 69	2.5-		0.014 s 28.57	β^- :76.00; β^- ,n:24.00	0	3.904E+06	3.904E+06	5.855E+05	NUBASE
0515	26-Fe- 45	1.5+		4.9E-03 s 30.61	2p:75.00; β^+ ,p:25.00	0	1.234E+06	1.234E+06	2.083E+06	NUBASE
0516	26-Fe- 46	0.0+		9E-03 s 44.44	β^+_m :64.00; β^+ ,p:18.00; β^+ ,p _m :18.00	0	3.887E+06	3.887E+06	1.117E+06	NUBASE
0517	26-Fe- 47	3.5-		0.022 s 3.21	β^+ :13.00; β^+ ,p:87.00	0	4.063E+06	4.063E+06	3.385E+06	NUBASE
0518	26-Fe- 48	0.0+		0.044 s 15.91	β^+ :96.40; β^+ ,p:3.60	0	3.668E+06	3.668E+06	8.198E+04	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0519	26-Fe- 49	3.5-		0.07 s 4.29	β^+ :48.00; β^+ ,p:52.00	0	3.509E+06	3.509E+06	1.424E+06	NUBASE
0520	26-Fe- 50	0.0+		0.155 s 7.10	β^+ :100.00	0	2.716E+06	2.716E+06		NUBASE
0521	26-Fe- 51	2.5-		5.083 h ~	β^+ :100.00	4	3.270E+06	1.062E+06	1.174E+03	ENSDF
0522	26-Fe- 52	0.0+		8.275 h ~	β^+ :~; β^+ ,m:100.00	4	1.920E+05	7.424E+05		ENSDF
0523	26-Fe- 52M	12.0+	6.820E+06	45.9 s 1.31	β^+ :100.00	4	1.982E+06	4.886E+06		ENSDF
0524	26-Fe- 53	3.5-		8.51 m 0.01	β^+ :100.00	4	1.107E+06	1.184E+06		UKPADD64
0525	26-Fe- 53M	9.5-	3.040E+06	2.58 m 0.02	IT:100.00	1		3.035E+06		UKPADD64
0526	26-Fe- 54	0.0+								NUBASE
0527	26-Fe- 55	1.5-		2.735 y ~	β^+ :100.00	4	4.004E+03	1.661E+03		LNHB
0528	26-Fe- 56	0.0+								NUBASE
0529	26-Fe- 57	0.5-								NUBASE
0530	26-Fe- 58	0.0+								NUBASE
0531	26-Fe- 59	1.5-		44.495 d ~	β^- :100.00	4	1.184E+05	1.189E+06		LNHB
0532	26-Fe- 60	0.0+		1.5E+06 y ~	β^- :100.00	1	8.767E+04			UKPADD64
0533	26-Fe- 61	?		5.98 m 0.02	β^- :100.00	0	1.326E+06	1.326E+06		NUBASE
0534	26-Fe- 62	0.0+		1.133 m 0.05	β^- :100.00	2	8.240E+05	5.061E+05		ENSDF
0535	26-Fe- 63	2.5-		6.1 s 9.84	β^- :100.00	4	2.604E+06	3.177E+05		UKPADD64
0536	26-Fe- 64	0.0+		2 s 10	β^- :100.00	2	2.105E+06	1.554E+04		ENSDF
0537	26-Fe- 65	0.5-		1.3 s 23.08	β^- :100.00	0	2.763E+06	2.763E+06		NUBASE
0538	26-Fe- 66	0.0+		0.44 s 9.09	β^- :100.00	0	2.180E+06	2.180E+06		NUBASE
0539	26-Fe- 67	0.5-		0.394 s 2.28	β^- :100.00	0	3.123E+06	3.123E+06		NUBASE
0540	26-Fe- 68	0.0+		0.187 s 3.21	β^- :100.00	0	2.690E+06	2.690E+06		NUBASE
0541	26-Fe- 69	0.5-		0.109 s 8.26	β^- :93.00; β^- ,n _m :7.00	0	3.679E+06	3.679E+06	8.275E+04	NUBASE
0542	26-Fe- 70	0.0+		0.094 s 18.09	β^- :100.00	0	3.180E+06	3.180E+06		NUBASE
0543	26-Fe- 71	3.5+		0.03 s 100	β^- :100.00	0	4.290E+06	4.290E+06		NUBASE
0544	26-Fe- 72	0.0+		0.01 s 100	β^- :100.00	0	3.667E+06	3.667E+06		NUBASE
0545	27-Co- 47	3.5-		1E-09 s 100	p:100.00	0			2.651E+06	NUBASE
0546	27-Co- 48	6.0+		1E-09 s 100	p:100.00	0			9.710E+05	NUBASE
0547	27-Co- 49	3.5-		3.5E-08 s 100	p:100.00	0			1.291E+06	NUBASE
0548	27-Co- 50	6.0+		0.044 s 9.09	β^+ :46.00; β^+ ,p:54.00	0	4.422E+06	4.422E+06	1.772E+06	NUBASE
0549	27-Co- 51	3.5-		0.06 s 100	β^+ :100.00	0	4.317E+06	4.317E+06		NUBASE
0550	27-Co- 52	6.0+		0.115 s 20	β^+ :50.00; β^+ ,m:50.00	0	3.669E+06	3.669E+06		NUBASE
0551	27-Co- 52M	2.0+	3.800E+05	0.104 s 10.58	β^+ :50.00; IT:50.00	0	2.465E+06	2.655E+06		NUBASE
0552	27-Co- 53	3.5-		0.24 s 8.33	β^+ :100.00	4	3.397E+06	1.096E+06	1.213E+03	ENSDF
0553	27-Co- 53M	9.5-	3.195E+06	0.247 s 4.86	β^+ ,m:98.50; p:1.50	0	2.776E+06	2.776E+06	2.390E+04	NUBASE
0554	27-Co- 54	0.0+		0.193 s 0.07	β^+ :100.00	3	3.399E+06	1.021E+06	1.183E+03	ENSDF
0555	27-Co- 54M	7.0+	1.974E+05	1.48 m 0.02	β^+ :100.00	4	2.047E+06	3.931E+06		ENSDF
0556	27-Co- 55	3.5-		17.53 h ~	β^+ :100.00	4	4.366E+05	2.007E+06		UKPADD64
0557	27-Co- 56	4.0+		77.31 d ~	β^+ :100.00	4	1.222E+05	3.592E+06		LNHB
0558	27-Co- 57	3.5-		271.8 d ~	β^+ :100.00	4	1.829E+04	1.252E+05		LNHB
0559	27-Co- 58	2.0+		70.86 d ~	β^+ :100.00	4	3.431E+04	9.762E+05		UKPADD64
0560	27-Co- 58M	5.0+	2.488E+04	8.9 h ~	IT:100.00	3	2.227E+04	1.817E+03		LNHB
0561	27-Co- 59	3.5-								NUBASE
0562	27-Co- 60	5.0+		5.271 y ~	β^- :100.00	4	9.677E+04	2.504E+06		LNHB
0563	27-Co- 60M	2.0+	5.860E+04	10.47 m 0.01	IT:99.75; β^- :0.25	4	5.569E+04	6.786E+03		LNHB
0564	27-Co- 61	3.5-		1.65 h ~	β^- :100.00	4	4.664E+05	9.697E+04		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0565	27-Co- 62	2.0+		1.5 m 0.04	β^- :100.00	2	1.640E+06	1.600E+06		ENSDF
0566	27-Co- 62M	5.0+	2.200E+04	13.91 m 0.01	β^- :99.00; IT:1.00	0	1.761E+06	1.761E+06		NUBASE
0567	27-Co- 63	3.5-		27.4 s 1.82	β^- :100.00	4	1.568E+06	1.441E+05		ENSDF
0568	27-Co- 64	1.0+		0.3 s 10	β^- :100.00	2	3.289E+06	1.812E+05		ENSDF
0569	27-Co- 65	3.5-		1.2 s 5	β^- :100.00	4	2.665E+06	1.147E+05		ENSDF
0570	27-Co- 66	3.0+		0.233 s 7.30	β^- :100.00	2	3.356E+06	2.754E+06	1.170E+03	ENSDF
0571	27-Co- 67	3.5-		0.425 s 4.71	β^- :100.00	2	2.754E+06	6.941E+05		ENSDF
0572	27-Co- 68	7.0-		0.199 s 10.55	β^- :100.00	4	3.839E+06	3.444E+06	1.580E+03	ENSDF
0573	27-Co- 68M	3.0+	1.500E+05	1.6 s 18.75	β^- :50.00; IT:50.00	0	2.044E+06	2.119E+06		NUBASE
0574	27-Co- 69	3.5-		0.227 s 5.73	β^- :99.00; β^- ,n:1.00	0	3.307E+06	3.307E+06	1.348E+04	NUBASE
0575	27-Co- 70	?		0.125 s 5.60	β^- :100.00	0	4.503E+06	4.503E+06		NUBASE
0576	27-Co- 70M	3.0+	2.000E+05	0.5 s 36	β^- :100.00	0	4.570E+06	4.570E+06		NUBASE
0577	27-Co- 71	3.5-		0.097 s 2.06	β^- :100.00	0	3.777E+06	3.777E+06		NUBASE
0578	27-Co- 72	?		0.09 s 22.22	β^- :100.00	0	4.880E+06	4.880E+06		NUBASE
0579	27-Co- 73	3.5-		0.08 s 100	β^- :100.00	0	4.273E+06	4.273E+06		NUBASE
0580	27-Co- 74	?		0.05 s 100	β^- :100.00	0	5.373E+06	5.373E+06		NUBASE
0581	27-Co- 75	3.5-		0.04 s 100	β^- :100.00	0	4.800E+06	4.800E+06		NUBASE
0582	28-Ni- 48	0.0+		0.01 s 100	2p:100.00	0			3.062E+06	NUBASE
0583	28-Ni- 49	3.5-		0.013 s 30.77	β^+ :100.00	0	6.193E+06	6.193E+06		NUBASE
0584	28-Ni- 50	0.0+		9.1E-03 s 19.78	β^+ :100.00	0	4.470E+06	4.470E+06		NUBASE
0585	28-Ni- 51	3.5-		0.03 s 100	β^+ :100.00	0	5.277E+06	5.277E+06		NUBASE
0586	28-Ni- 52	0.0+		0.038 s 13.16	β^+ :83.00; β^+ ,p:17.00	0	3.450E+06	3.450E+06	4.370E+05	NUBASE
0587	28-Ni- 53	3.5-		0.045 s 33.33	β^+ :55.00; β^+ ,p:22.50; β^+ ,p _m :22.50	0	3.364E+06	3.364E+06	9.302E+05	NUBASE
0588	28-Ni- 54	0.0+		0.104 s 6.73	β^+ :100.00	0	2.933E+06	2.933E+06		NUBASE
0589	28-Ni- 55	3.5-		0.204 s 1.47	β^+ :100.00	4	3.599E+06	1.017E+06	1.294E+03	ENSDF
0590	28-Ni- 56	0.0+		6.075 d ~	β^+ :100.00	0	7.118E+05	7.118E+05		NUBASE
0591	28-Ni- 57	1.5-		1.496 d ~	β^+ :100.00	4	1.566E+05	1.941E+06		LNHB
0592	28-Ni- 58	0.0+		7E+20 y ~	2 β^+ :100.00	0	1.926E+06			NUBASE
0593	28-Ni- 59	1.5-		7.6E+04 y ~	β^+ :100.00	3	4.622E+03	2.544E+03		UKPADD64
0594	28-Ni- 60	0.0+								NUBASE
0595	28-Ni- 61	1.5-								NUBASE
0596	28-Ni- 62	0.0+								NUBASE
0597	28-Ni- 63	0.5-		100.6 y ~	β^- :100.00	1	1.742E+04			LNHB
0598	28-Ni- 64	0.0+								NUBASE
0599	28-Ni- 65	2.5-		2.52 h ~	β^- :100.00	4	6.297E+05	5.499E+05		UKPADD64
0600	28-Ni- 66	0.0+		2.267 d ~	β^- :100.00	1	6.524E+04			UKPADD64
0601	28-Ni- 67	0.5-		21 s 4.76	β^- :100.00	2	1.523E+06	5.025E+04		UKPADD64
0602	28-Ni- 68	0.0+		29 s 6.90	β^- :100.00	0	7.011E+05	7.011E+05		NUBASE
0603	28-Ni- 69	?		11.4 s 2.63	β^- :100.00	2	1.174E+06	2.635E+06		ENSDF
0604	28-Ni- 69M	0.5-	3.210E+05	3.5 s 11.43	β^- :100.00	0	2.026E+06	2.026E+06		NUBASE
0605	28-Ni- 70	0.0+		6 s 5	β^- :100.00	0	1.195E+06	1.195E+06		NUBASE
0606	28-Ni- 71	0.5-		2.56 s 1.17	β^- :100.00	0	2.504E+06	2.504E+06		NUBASE
0607	28-Ni- 72	0.0+		1.57 s 3.18	β^- :100.00	0	1.948E+06	1.948E+06		NUBASE
0608	28-Ni- 73	4.5+		0.84 s 3.57	β^- :100.00	0	3.042E+06	3.042E+06		NUBASE
0609	28-Ni- 74	0.0+		0.68 s 17.65	β^- :100.00	0	2.545E+06	2.545E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0610	28-Ni- 75	3.5+		0.6 s 33.33	β^- :98.40; β^- ,n:1.60	0	3.368E+06	3.368E+06	1.614E+04	NUBASE
0611	28-Ni- 76	0.0+		0.47 s 82.98	β^- :50.00; β^- ,m:50.00	0	3.122E+06	3.122E+06		NUBASE
0612	28-Ni- 77	4.5+		0.3 s 100	β^- :100.00	0	3.943E+06	3.943E+06		NUBASE
0613	28-Ni- 78	0.0+		0.2 s 100	β^- :100.00	0	3.483E+06	3.483E+06		NUBASE
0614	29-Cu- 52	3.0+		1E-09 s 100	p:100.00	0			1.521E+06	NUBASE
0615	29-Cu- 53	1.5-		3E-07 s 100	p:50.00; β^+ :50.00	0	2.652E+06	2.652E+06	9.505E+05	NUBASE
0616	29-Cu- 54	3.0+		7.5E-08 s 100	p:100.00	0			3.910E+05	NUBASE
0617	29-Cu- 55	1.5-		0.04 s 100	β^+ :50.00; p:50.00	0	2.286E+06	2.286E+06	1.505E+05	NUBASE
0618	29-Cu- 56	4.0+		0.093 s 3.23	β^+ :99.60; β^+ ,p:0.40	0	5.089E+06	5.089E+06	8.139E+03	NUBASE
0619	29-Cu- 57	1.5-		0.196 s 0.36	β^+ :100.00	4	3.600E+06	1.140E+06	1.260E+03	ENSDF
0620	29-Cu- 58	1.0+		3.204 s 0.22	β^+ :100.00	4	3.296E+06	1.541E+06	1.111E+03	ENSDF
0621	29-Cu- 59	1.5-		1.358 m 0.01	β^+ :100.00	4	1.488E+06	1.444E+06		ENSDF
0622	29-Cu- 60	2.0+		23.7 m 0.03	β^+ :100.00	4	9.016E+05	3.912E+06		ENSDF
0623	29-Cu- 61	1.5-		3.333 h ~	β^+ :100.00	4	3.088E+05	8.235E+05		ENSDF
0624	29-Cu- 62	1.0+		9.75 m ~	β^+ :100.00	4	1.283E+06	1.012E+06		UKPADD64
0625	29-Cu- 63	1.5-								NUBASE
0626	29-Cu- 64	1.0+		12.701 h ~	β^+ :61.00; β^- :39.00	5	1.259E+05	1.901E+05		LNHB
0627	29-Cu- 65	1.5-								NUBASE
0628	29-Cu- 66	1.0+		5.1 m ~	β^- :100.00	2	1.071E+06	8.186E+04		UKPADD64
0629	29-Cu- 67	1.5-		2.579 d ~	β^- :100.00	4	1.557E+05	1.154E+05		UKPADD64
0630	29-Cu- 68	1.0+		31.1 s 4.82	β^- :100.00	4	1.481E+06	1.021E+06		ENSDF
0631	29-Cu- 68M	6.0-	7.216E+05	3.75 m 0.02	IT:84.00; β^- :16.00	0	2.753E+05	8.814E+05		NUBASE
0632	29-Cu- 69	1.5-		2.85 m 0.09	β^- :100.00	2	8.865E+05	5.250E+05		ENSDF
0633	29-Cu- 70	1.0+		4.5 s 22.22	β^- :100.00	2	2.782E+06	4.778E+05		ENSDF
0634	29-Cu- 70M	3.0-	1.010E+05	33 s 6.06	β^- :50.00; IT:50.00	0	1.115E+06	1.165E+06		NUBASE
0635	29-Cu- 70N	1.0+	2.420E+05	6.6 s 3.03	β^- :95.00; IT _m :5.00	0	2.163E+06	2.170E+06		NUBASE
0636	29-Cu- 71	1.5-		19.4 s 7.22	β^- :100.00	0	1.539E+06	1.539E+06		NUBASE
0637	29-Cu- 72	1.0+		6.6 s 1.52	β^- :100.00	2	3.121E+06	1.428E+06		ENSDF
0638	29-Cu- 73	1.5-		4.2 s 7.14	β^- :100.00; β^- ,m:~	2		3.056E+05		ENSDF
0639	29-Cu- 74	1.0+		1.594 s 0.63	β^- :100.00	0	3.235E+06	3.235E+06		NUBASE
0640	29-Cu- 75	1.5-		1.224 s 0.25	β^- :96.50; β^- ,n:3.50	0	2.717E+06	2.717E+06	3.079E+04	NUBASE
0641	29-Cu- 76	?		0.641 s 0.94	β^- :97.00; β^- ,n:3.00	0	3.635E+06	3.635E+06	2.567E+04	NUBASE
0642	29-Cu- 76M	?		1.27 s 23.62	β^- :100.00	0	3.721E+06	3.721E+06		NUBASE
0643	29-Cu- 77	1.5-		0.469 s 1.71	β^- :100.00	0	3.380E+06	3.380E+06		NUBASE
0644	29-Cu- 78	?		0.342 s 3.22	β^- :100.00	0	4.197E+06	4.197E+06		NUBASE
0645	29-Cu- 79	1.5-		0.188 s 13.30	β^- :45.00; β^- ,n:55.00	0	2.618E+06	2.618E+06	9.541E+05	NUBASE
0646	29-Cu- 80	?		0.1 s 100	β^- :100.00	0	5.130E+06	5.130E+06		NUBASE
0647	30-Zn- 54	0.0+		1E-09 s 100	2p:100.00	0			1.502E+06	NUBASE
0648	30-Zn- 55	2.5-		0.02 s 100	β^+ :100.00	0	5.567E+06	5.567E+06		NUBASE
0649	30-Zn- 56	0.0+		0.036 s 27.78	β^+ :100.00	0	4.290E+06	4.290E+06		NUBASE
0650	30-Zn- 57	3.5-		0.038 s 10.53	β^+ :35.00; β^+ ,p:65.00	0	3.938E+06	3.938E+06	2.245E+06	NUBASE
0651	30-Zn- 58	0.0+		0.084 s 10.71	β^+ :97.00; β^+ ,p:3.00	0	3.076E+06	3.076E+06	4.870E+04	NUBASE
0652	30-Zn- 59	1.5-		0.182 s 0.99	β^+ :100.00	4	3.802E+06	1.056E+06	1.330E+03	ENSDF
0653	30-Zn- 60	0.0+		2.38 m 0.04	β^+ :100.00	4	1.119E+06	1.506E+06		ENSDF
0654	30-Zn- 61	1.5-		1.485 m ~	β^+ :100.00	4	1.855E+06	1.525E+06		ENSDF
0655	30-Zn- 61M	0.5-	8.840E+04	0.43 s 100	IT:100.00	0		8.840E+04		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0701	31-Ga- 72	3.0-		14.1 h ~	β^- :100.00	4	5.067E+05	2.705E+06		ENSDF
0702	31-Ga- 72M	0.0+	1.197E+05	0.04 s 0.33	IT:100.00	0		1.197E+05		NUBASE
0703	31-Ga- 73	1.5-		4.86 h ~	β^- :1.47; β^-_{m} :98.53	4	4.467E+05	3.410E+05		ENSDF
0704	31-Ga- 74	3.0-		8.12 m 0.02	β^- :100.00	2	9.883E+05	3.006E+06		ENSDF
0705	31-Ga- 74M	?	5.957E+04	9.5 s 10.53	IT:75.00; β^- :25.00	0	4.527E+05	4.973E+05		NUBASE
0706	31-Ga- 75	1.5-		2.1 m 0.03	β^- :96.00; β^-_{m} :4.00	0	1.129E+06	1.129E+06		NUBASE
0707	31-Ga- 76	?		32.6 s 1.84	β^- :100.00	2	1.801E+06	2.715E+06		ENSDF
0708	31-Ga- 77	1.5-		13 s 2.31	β^-_{m} :100.00	4	2.112E+06	4.570E+05		UKPADD64
0709	31-Ga- 78	3.0+		5.09 s 0.98	β^- :100.00	2	2.604E+06	2.500E+06		ENSDF
0710	31-Ga- 79	1.5-		2.847 s 0.11	β^- :99.76; β^-_{m} :0.15; β^- ,n:0.09	0	2.325E+06	2.325E+06	2.850E+02	NUBASE
0711	31-Ga- 80	3.0+		1.697 s 0.65	β^- :100.00	2	3.456E+06	2.366E+06	1.096E+03	ENSDF
0712	31-Ga- 81	2.5-		1.217 s 0.41	β^- :46.53; β^-_{m} :41.57; β^- ,n:11.90	0	2.452E+06	2.452E+06	1.030E+05	NUBASE
0713	31-Ga- 82	?		0.599 s 0.33	β^- :78.70; β^- ,n:10.65; β^- ,n _m :10.65	0	3.539E+06	3.539E+06	2.550E+05	NUBASE
0714	31-Ga- 83	1.5-		0.308 s 0.32	β^- :63.00; β^- ,n:37.00	0	3.172E+06	3.172E+06	7.547E+05	NUBASE
0715	31-Ga- 84	?		0.085 s 11.76	β^- :30.00; β^- ,n:70.00	0	2.940E+06	2.940E+06	1.526E+06	NUBASE
0716	31-Ga- 85	1.5-		0.05 s 100	β^- :100.00	0	4.340E+06	4.340E+06		NUBASE
0717	31-Ga- 86	?		0.03 s 100	β^- :100.00	0	5.163E+06	5.163E+06		NUBASE
0718	32-Ge- 58	0.0+		1E-09 s 100	2p:100.00	0			2.782E+06	NUBASE
0719	32-Ge- 59	3.5-		1E-09 s 100	2p:100.00	0			1.222E+06	NUBASE
0720	32-Ge- 60	0.0+		0.03 s 100	β^+ :100.00	0	4.077E+06	4.077E+06		NUBASE
0721	32-Ge- 61	1.5-		0.039 s 30.77	β^+ :20.00; β^+ ,p:80.00	0	3.524E+06	3.524E+06	2.634E+06	NUBASE
0722	32-Ge- 62	0.0+		0.13 s 30.77	β^+ :100.00	0	3.253E+06	3.253E+06		NUBASE
0723	32-Ge- 63	1.5-		0.142 s 5.63	β^+ :100.00	0	3.212E+06	3.212E+06		NUBASE
0724	32-Ge- 64	0.0+		1.062 m 0.07	β^+ :100.00	0	1.495E+06	1.495E+06		NUBASE
0725	32-Ge- 65	1.5-		30.9 s 1.62	β^+ :99.99; β^+ ,p:0.01	0	2.082E+06	2.082E+06	6.338E+01	NUBASE
0726	32-Ge- 66	0.0+		2.26 h ~	β^+ :100.00	4	9.714E+04	6.745E+05		ENSDF
0727	32-Ge- 67	0.5-		18.9 m 0.03	β^+ :100.00	0	1.407E+06	1.407E+06		NUBASE
0728	32-Ge- 68	0.0-		270.95 d ~	β^+ :100.00	3	4.746E+03	4.143E+03		LNHB
0729	32-Ge- 69	2.5-		1.627 d ~	β^+ :100.00	4	1.200E+05	9.505E+05		ENSDF
0730	32-Ge- 70	0.0+								NUBASE
0731	32-Ge- 71	0.5-		11.43 d ~	β^+ :100.00	3	4.792E+03	4.195E+03		ENSDF
0732	32-Ge- 71M	4.5+	1.984E+05	0.02 s 0.83	IT:100.00	3	3.292E+04	1.646E+05		ENSDF
0733	32-Ge- 72	0.0+								NUBASE
0734	32-Ge- 73	4.5+								NUBASE
0735	32-Ge- 73M	0.5-	6.673E+04	0.499 s 2.20	IT:100.00	0		6.673E+04		NUBASE
0736	32-Ge- 74	0.0+								NUBASE
0737	32-Ge- 75	0.5-		1.38 h ~	β^- :100.00	2	4.204E+05	3.523E+04		ENSDF
0738	32-Ge- 75M	3.5+	1.397E+05	47.7 s 1.05	IT:99.97; β^-_{m} :0.03	0	1.012E+02	1.397E+05		NUBASE
0739	32-Ge- 76	0.0+		1.58E+21 y ~	2 β^- :100.00	0	2.039E+06			NUBASE
0740	32-Ge- 77	3.5+		11.3 h ~	β^- :100.00	2	6.422E+05	1.078E+06		ENSDF
0741	32-Ge- 77M	0.5-	1.597E+05	52.9 s 1.13	β^- :81.00; IT:19.00	4	9.660E+05	7.401E+04		ENSDF
0742	32-Ge- 78	0.0+		1.467 h ~	β^- :100.00	2	2.267E+05	2.781E+05		ENSDF
0743	32-Ge- 79	0.5-		18.98 s 0.16	β^- :100.00	4	1.714E+06	2.597E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0744	32-Ge- 79M	3.5+	1.860E+05	39 s 2.56	β^- :96.00; IT:4.00	4	1.292E+06	1.196E+06		ENSDF
0745	32-Ge- 80	0.0+		29.5 s 1.36	β^- :100.00	2	1.050E+06	1.466E+05		ENSDF
0746	32-Ge- 81	4.5+		8 s 25	β^- :100.00	0	2.078E+06	2.078E+06		NUBASE
0747	32-Ge- 81M	0.5+	6.791E+05	7.6 s 7.89	β^- :100.00; IT:1.00	4	2.475E+06	1.495E+06		ENSDF
0748	32-Ge- 82	0.0+		4.55 s 6.59	β^- :100.00	2	1.575E+06	1.079E+06		ENSDF
0749	32-Ge- 83	2.5+		1.85 s 3.24	β^- :100.00	0	2.993E+06	2.993E+06		NUBASE
0750	32-Ge- 84	0.0+		0.954 s 1.47	β^- :44.60; β^-_{m} :44.60; $\beta^-_{,n}$:10.80	0	2.424E+06	2.424E+06	9.608E+04	NUBASE
0751	32-Ge- 85	2.5+		0.54 s 9.26	β^- :86.00; $\beta^-_{,n}$:7.00; $\beta^-_{,n_m}$:7.00	0	3.111E+06	3.111E+06	1.729E+05	NUBASE
0752	32-Ge- 86	0.0+		0.3 s 100	β^- :100.00	0	3.103E+06	3.103E+06		NUBASE
0753	32-Ge- 87	2.5+		0.15 s 100	β^- :100.00	0	3.913E+06	3.913E+06		NUBASE
0754	32-Ge- 88	0.0+		0.08 s 100	β^- :100.00	0	3.717E+06	3.717E+06		NUBASE
0755	32-Ge- 89	1.5+		0.05 s 100	β^- :100.00	0	4.483E+06	4.483E+06		NUBASE
0756	33-As- 60	5.0+		1E-09 s 100	p:100.00	0			3.311E+06	NUBASE
0757	33-As- 60M	2.0+	6.000E+04	1E-09 s 100	p:100.00	0			3.371E+06	NUBASE
0758	33-As- 61	1.5-		1E-09 s 100	p:100.00	0			2.431E+06	NUBASE
0759	33-As- 62	1.0+		1E-09 s 100	p:100.00	0			1.481E+06	NUBASE
0760	33-As- 63	1.5-		1E-09 s 100	p:100.00	0			1.131E+06	NUBASE
0761	33-As- 64	0.0+		0.04 s 75	β^+ :100.00	0	4.943E+06	4.943E+06		NUBASE
0762	33-As- 65	1.5-		0.17 s 17.65	β^+ :100.00	0	3.143E+06	3.143E+06		NUBASE
0763	33-As- 66	0.0+		0.096 s 0.24	β^+ :100.00	0	3.373E+06	3.373E+06		NUBASE
0764	33-As- 67	2.5-		42.5 s 2.82	β^+ :100.00	4	2.068E+06	1.464E+06		ENSDF
0765	33-As- 68	3.0+		2.527 m 0.01	β^+ :100.00	4	2.021E+06	3.693E+06		ENSDF
0766	33-As- 69	2.5-		15.23 m 0.02	β^+ :100.00	4	1.219E+06	1.135E+06		ENSDF
0767	33-As- 70	4.0+		52.6 m 0.01	β^+ :100.00	4	8.407E+05	3.997E+06		ENSDF
0768	33-As- 71	2.5-		2.72 d ~	β^+ :100.00	4	1.158E+05	5.751E+05		ENSDF
0769	33-As- 72	2.0-		1.083 d ~	β^+ :100.00	4	1.040E+06	1.781E+06		ENSDF
0770	33-As- 73	1.5-		80.3 d ~	β^+_{m} :100.00	0	1.369E+04	2.738E+04		NUBASE
0771	33-As- 74	2.0-		17.78 d ~	β^- :34.00; β^+ :66.00	5	2.683E+05	7.597E+05		UKPADD64
0772	33-As- 75	1.5-								NUBASE
0773	33-As- 75M	4.5+	3.039E+05	0.018 s 1.31	IT:100.00	0		3.039E+05		NUBASE
0774	33-As- 76	2.0-		1.093 d ~	β^- :100.00	2	1.065E+06	4.163E+05		ENSDF
0775	33-As- 77	1.5-		1.618 d ~	β^- :100.00	2	2.255E+05	8.313E+03		ENSDF
0776	33-As- 78	2.0-		1.512 h ~	β^- :100.00	2	1.256E+06	1.300E+06		ENSDF
0777	33-As- 79	1.5-		9.01 m 0.03	β^- :2.37; β^-_{m} :97.63	2	8.392E+05	3.378E+04		ENSDF
0778	33-As- 80	1.0+		15.2 s 1.32	β^- :100.00	2	2.148E+06	5.821E+05		ENSDF
0779	33-As- 81	1.5-		33.3 s 2.40	β^- :96.41; β^-_{m} :3.59	4	1.575E+06	2.303E+05		ENSDF
0780	33-As- 82	1.0+		19.1 s 2.62	β^- :100.00	2	3.297E+06	3.273E+05		ENSDF
0781	33-As- 82M	5.0-	2.450E+05	13.6 s 2.21	β^- :100.00	4	2.037E+06	2.970E+06		UKPADD64
0782	33-As- 83	1.5-		13.4 s 2.24	β^- :36.00; β^-_{m} :64.00	0	1.772E+06	1.772E+06		NUBASE
0783	33-As- 84	3.0+		4.02 s 0.75	β^- :99.72; $\beta^-_{,n}$:0.14; $\beta^-_{,n_m}$:0.14	0	3.282E+06	3.282E+06	7.528E+02	NUBASE
0784	33-As- 84M	?		0.65 s 23.08	β^- :100.00	0	3.291E+06	3.291E+06		NUBASE
0785	33-As- 85	1.5-		2.04 s 0.98	β^- :78.00; $\beta^-_{,n}$:22.00	5	3.381E+06	3.585E+05	1.518E+05	UKPADD64
0786	33-As- 86	?		0.945 s 0.85	β^- :67.00; $\beta^-_{,n}$:33.00	0	2.974E+06	2.974E+06	4.296E+05	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0787	33-As- 87	1.5-		0.61 s 18.03	β^- :84.60; β^- ,n:15.40	0	3.239E+06	3.239E+06	2.499E+05	NUBASE
0788	33-As- 88	?		0.3 s 100	β^- :100.00	0	4.197E+06	4.197E+06		NUBASE
0789	33-As- 89	1.5-		0.2 s 100	β^- :100.00	0	4.020E+06	4.020E+06		NUBASE
0790	33-As- 90	?		0.08 s 100	β^- :100.00	0	4.827E+06	4.827E+06		NUBASE
0791	33-As- 91	1.5-		0.05 s 100	β^- :100.00	0	4.493E+06	4.493E+06		NUBASE
0792	33-As- 92	?		0.03 s 100	β^- :100.00	0	5.240E+06	5.240E+06		NUBASE
0793	34-Se- 65	1.5-		0.05 s 100	β^+ :100.00	0	4.687E+06	4.687E+06		NUBASE
0794	34-Se- 66	0.0+		0.033 s 36.36	β^+ :100.00	0	3.260E+06	3.260E+06		NUBASE
0795	34-Se- 67	2.5-		0.133 s 8.27	β^+ :99.50; β^+ ,p:0.50	0	3.380E+06	3.380E+06	9.801E+03	NUBASE
0796	34-Se- 68	0.0+		35.5 s 1.97	β^+ :100.00	0	1.563E+06	1.563E+06		NUBASE
0797	34-Se- 69	1.5-		27.4 s 0.73	β^+ :100.00	4	2.304E+06	1.865E+06		ENSDF
0798	34-Se- 70	0.0+		41.1 m 0.01	β^+ :100.00	4	4.842E+05	9.928E+05		ENSDF
0799	34-Se- 71	2.5-		4.74 m 0.02	β^+ :100.00	4	1.397E+06	1.584E+06		ENSDF
0800	34-Se- 72	0.0+		8.4 d ~	β^+ :100.00	4	2.246E+04	3.434E+04		ENSDF
0801	34-Se- 73	4.5+		7.15 h ~	β^+ :100.00	4	3.865E+05	1.090E+06		ENSDF
0802	34-Se- 73M	1.5-	2.571E+04	39.8 m 0.05	IT:72.60; β^+ :27.40	0	2.525E+05	2.712E+05		NUBASE
0803	34-Se- 74	0.0+								NUBASE
0804	34-Se- 75	2.5+		119.64 d ~	β^+ :100.00	4	1.465E+04	3.902E+05		UKPADD64
0805	34-Se- 76	0.0+								NUBASE
0806	34-Se- 77	0.5-								NUBASE
0807	34-Se- 77M	3.5+	1.619E+05	17.36 s 0.29	IT:100.00	0		1.619E+05		NUBASE
0808	34-Se- 78	0.0+								NUBASE
0809	34-Se- 79	3.5+		1.1E+06 y ~	β^- :100.00	1	5.580E+04			ENSDF
0810	34-Se- 79M	0.5-	9.577E+04	3.9 m 0.01	IT:99.94; β^- :0.06	4	8.187E+04	1.396E+04		UKPADD64
0811	34-Se- 80	0.0+								NUBASE
0812	34-Se- 81	0.5-		18.45 m 0.01	β^- :100.00	4	6.107E+05	7.991E+03		ENSDF
0813	34-Se- 81M	3.5+	1.030E+05	57.28 m ~	β^- :0.05; IT:99.95	4	8.445E+04	1.825E+04		ENSDF
0814	34-Se- 82	0.0+		1.21E+20 y ~	2 β^- :100.00	0	2.995E+06			ENSDF
0815	34-Se- 83	4.5+		22.3 m 0.02	β^- :100.00	0	1.223E+06	1.223E+06		NUBASE
0816	34-Se- 83M	0.5-	2.287E+05	1.168 m 0.01	β^- :100.00	2	1.273E+06	9.715E+05		ENSDF
0817	34-Se- 84	0.0+		3.1 m 0.05	β^- :100.00; β^- ,m:~	2	5.404E+05	4.082E+05		ENSDF
0818	34-Se- 85	2.5+		31.7 s 2.84	β^- :100.00	0	2.061E+06	2.061E+06		NUBASE
0819	34-Se- 86	0.0+		15.3 s 5.88	β^- :100.00	0	1.700E+06	1.700E+06		NUBASE
0820	34-Se- 87	2.5+		5.29 s 2.08	β^- :100.00	2	2.833E+06	1.067E+06		ENSDF
0821	34-Se- 88	0.0+		1.53 s 3.92	β^- :99.01; β^- ,n:0.99	0	2.265E+06	2.265E+06	4.717E+03	NUBASE
0822	34-Se- 89	2.5+		0.41 s 9.76	β^- :92.20; β^- ,n:7.80	0	2.947E+06	2.947E+06	6.744E+04	NUBASE
0823	34-Se- 90	0.0+		0.3 s 100	β^- :100.00	0	2.897E+06	2.897E+06		NUBASE
0824	34-Se- 91	0.5+		0.27 s 18.52	β^- :79.00; β^- ,n:21.00	0	3.267E+06	3.267E+06	3.260E+05	NUBASE
0825	34-Se- 92	0.0+		0.1 s 100	β^- :100.00	0	3.310E+06	3.310E+06		NUBASE
0826	34-Se- 93	0.5+		0.05 s 100	β^- :100.00	0	4.110E+06	4.110E+06		NUBASE
0827	34-Se- 94	0.0+		0.02 s 100	β^- :100.00	0	3.667E+06	3.667E+06		NUBASE
0828	35-Br- 67	0.5-		1E-09 s 100	p:100.00	0			1.631E+06	NUBASE
0829	35-Br- 68	3.0+		1.5E-06 s 100	p:100.00	0			5.610E+05	NUBASE
0830	35-Br- 69	0.5-		2.4E-08 s 100	p:100.00	0			4.410E+05	NUBASE
0831	35-Br- 70	0.0+		0.079 s 1.01	β^+ :100.00	0	3.540E+06	3.540E+06		NUBASE
0832	35-Br- 70M	9.0+	2.292E+06	2.2 s 9.09	β^+ :50.00; IT:50.00	0	2.152E+06	3.298E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0833	35-Br- 71	2.5-		21.4 s 2.80	β^+ :100.00	0	2.020E+06	2.020E+06		NUBASE
0834	35-Br- 72	1.0+		1.31 m 0.05	β^+ :100.00	4	2.717E+06	2.922E+06		UKPADD64
0835	35-Br- 72M	1.0-	1.011E+05	10.6 s 3.77	IT:100.00	3	5.088E+04	5.000E+04		UKPADD64
0836	35-Br- 73	0.5-		3.4 m 0.10	β^+ :100.00	0	1.521E+06	1.521E+06		NUBASE
0837	35-Br- 74	0.0-		25.4 m 0.02	β^+ :100.00	4	1.055E+06	4.357E+06		ENSDF
0838	35-Br- 74M	4.0+	1.380E+04	46 m 0.07	β^+ :100.00	4	1.243E+06	3.795E+06		ENSDF
0839	35-Br- 75	1.5-		1.612 h ~	β^+ :100.00	4	5.283E+05	1.194E+06		ENSDF
0840	35-Br- 76	1.0-		16.2 h ~	β^+ :100.00	4	6.481E+05	2.716E+06		ENSDF
0841	35-Br- 76M	4.0+	1.026E+05	1.31 s 1.53	IT:99.40; β^+ :0.60	0	1.013E+04	1.121E+05		NUBASE
0842	35-Br- 77	1.5-		2.377 d ~	β^+ :100.00	4	6.034E+03	3.208E+05		ENSDF
0843	35-Br- 77M	4.5+	1.059E+05	4.28 m 0.04	IT:100.00	3	8.479E+04	1.957E+04		ENSDF
0844	35-Br- 78	1.0+		6.46 m 0.01	β^+ :100.00	4	1.024E+06	1.034E+06		ENSDF
0845	35-Br- 79	1.5-								NUBASE
0846	35-Br- 79M	4.5+	2.072E+05	4.864 s 0.72	IT:100.00	3	4.701E+04	1.598E+05		ENSDF
0847	35-Br- 80	1.0+		17.6 m ~	β^- :91.70; β^+ :8.30	5	7.240E+05	7.700E+04		UKPADD64
0848	35-Br- 80M	5.0-	8.585E+04	4.41 h ~	IT:100.00	3	6.176E+04	2.426E+04		UKPADD64
0849	35-Br- 81	1.5-								NUBASE
0850	35-Br- 82	5.0-		1.472 d ~	β^- :100.00	4	1.427E+05	2.638E+06		UKPADD64
0851	35-Br- 82M	2.0-	4.595E+04	6.09 m 0.02	β^- :2.40; IT:97.60	4	7.009E+04	8.181E+03		UKPADD64
0852	35-Br- 83	1.5-		2.4 h ~	β^- :0.09; β^- :99.91	2	3.252E+05	6.874E+03		ENSDF
0853	35-Br- 84	2.0-		31.8 m ~	β^- :100.00	2	1.240E+06	1.757E+06		ENSDF
0854	35-Br- 84M	?	3.200E+05	6 m 0.06	β^- :100.00	2	9.100E+05	2.768E+06		ENSDF
0855	35-Br- 85	1.5-		2.9 m 0.03	β^- :0.16; β^- :99.84	2	1.041E+06	6.131E+04		ENSDF
0856	35-Br- 86	2.0-		55 s 1.45	β^- :100.00	2	1.968E+06	3.232E+06		ENSDF
0857	35-Br- 87	1.5-		55.7 s 0.36	β^- :97.49; β^- ,n:2.51	5	1.577E+06	3.089E+06	3.783E+03	UKPADD64
0858	35-Br- 88	2.0-		16.5 s 0.61	β^- :93.30; β^- ,n:6.70	5	2.394E+06	3.112E+06	8.068E+03	UKPADD64
0859	35-Br- 89	1.5-		4.37 s 1.14	β^- :85.90; β^- ,n:14.10	5	2.572E+06	1.711E+06	6.484E+03	UKPADD64
0860	35-Br- 90	1.0-		1.9 s 2.11	β^- :75.40; β^- ,n:24.60	5	3.290E+06	1.538E+06	2.191E+04	UKPADD64
0861	35-Br- 91	1.5-		0.538 s 2.42	β^- :80.00; β^- ,n:20.00	5	3.909E+06	4.512E+05	1.000E+04	UKPADD64
0862	35-Br- 92	2.0-		0.343 s 4.37	β^- :66.90; β^- ,n:33.10	0	3.273E+06	3.273E+06	5.510E+05	NUBASE
0863	35-Br- 93	1.5-		0.102 s 9.80	β^- :32.00; β^- ,n:68.00	0	2.473E+06	2.473E+06	1.303E+06	NUBASE
0864	35-Br- 94	?		0.07 s 28.57	β^- :30.00; β^- ,n:70.00	0	2.760E+06	2.760E+06	1.426E+06	NUBASE
0865	35-Br- 95	1.5-		0.05 s 100	β^- :100.00	0	4.047E+06	4.047E+06		NUBASE
0866	35-Br- 96	?		0.02 s 100	β^- :100.00	0	4.800E+06	4.800E+06		NUBASE
0867	35-Br- 97	1.5-		0.01 s 100	β^- :100.00	0	4.423E+06	4.423E+06		NUBASE
0868	36-Kr- 69	2.5-		0.032 s 31.25	β^+ :100.00	0	4.680E+06	4.680E+06		NUBASE
0869	36-Kr- 70	0.0+		0.057 s 36.84	β^+ :100.00	0	2.486E+06	2.486E+06		NUBASE
0870	36-Kr- 71	?		0.064 s 12.50	β^+ :100.00	2	4.314E+06	1.022E+06	1.393E+03	ENSDF
0871	36-Kr- 72	0.0+		17.16 s 1.05	β^+ :100.00	0	1.659E+06	1.659E+06		NUBASE
0872	36-Kr- 73	1.5-		27.3 s 3.66	β^+ :100.00	4	2.619E+06	1.478E+06		ENSDF
0873	36-Kr- 74	0.0+		11.5 m 0.02	β^+ :100.00	0	9.915E+05	9.915E+05		NUBASE
0874	36-Kr- 75	2.5+		4.29 m 0.07	β^+ :100.00	4	1.575E+06	1.281E+06		ENSDF
0875	36-Kr- 76	0.0+		14.8 h ~	β^+ :100.00	0	4.250E+05	4.250E+05		NUBASE
0876	36-Kr- 77	2.5+		1.24 h ~	β^+ :100.00	4	6.786E+05	1.038E+06		ENSDF
0877	36-Kr- 78	0.0+		1.1E+20 y ~	$2\beta^+$:100.00	0	2.846E+06			NUBASE
0878	36-Kr- 79	0.5-		1.46 d ~	β^+ :100.00	4	2.463E+04	2.578E+05		UKPADD64

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0879	36-Kr- 79M	3.5+	1.298E+05	50 s 6	IT:100.00	3	9.006E+04	3.980E+04		UKPADD64
0880	36-Kr- 80	0.0+								NUBASE
0881	36-Kr- 81	3.5+		2.1E+05 y ~	β^+ :100.00	4	5.385E+03	7.369E+03		UKPADD64
0882	36-Kr- 81M	0.5-	1.905E+05	13.2 s 0.76	β^+ :~; IT:100.00	4	5.877E+04	1.317E+05		UKPADD64
0883	36-Kr- 82	0.0+								NUBASE
0884	36-Kr- 83	4.5+								NUBASE
0885	36-Kr- 83M	0.5-	4.154E+04	1.83 h ~	IT:100.00	3	3.910E+04	2.767E+03		ENSDF
0886	36-Kr- 84	0.0+								NUBASE
0887	36-Kr- 85	4.5+		10.752 y ~	β^- :100.00	4	2.281E+05	2.236E+03		LNHB
0888	36-Kr- 85M	0.5-	3.049E+05	4.48 h ~	IT:21.40; β^- :78.60	4	2.542E+05	1.574E+05		ENSDF
0889	36-Kr- 86	0.0+								NUBASE
0890	36-Kr- 87	2.5+		1.272 h ~	β^- :100.00	4	1.330E+06	7.879E+05		ENSDF
0891	36-Kr- 88	0.0+		2.84 h ~	β^- :100.00	4	3.714E+05	1.950E+06		ENSDF
0892	36-Kr- 89	1.5+		3.15 m 0.02	β^- :100.00	2	1.377E+06	1.836E+06		ENSDF
0893	36-Kr- 90	0.0+		32.32 s 0.28	β^- :86.92; β^-_m :13.08	0	1.459E+06	1.459E+06		NUBASE
0894	36-Kr- 91	2.5+		8.57 s 0.47	β^- :100.00	4	2.096E+06	1.733E+06		ENSDF
0895	36-Kr- 92	0.0+		1.84 s 0.43	β^- :100.00	4	1.998E+06	1.388E+06		ENSDF
0896	36-Kr- 93	0.5+		1.286 s 0.78	β^- :100.00	4	2.876E+06	2.131E+06		ENSDF
0897	36-Kr- 94	0.0+		0.21 s 1.90	β^- :98.89; β^-_m :1.11	0	2.453E+06	2.453E+06	9.454E+03	NUBASE
0898	36-Kr- 95	0.5+		0.114 s 2.63	β^- :97.13; β^-_m :2.87	0	3.209E+06	3.209E+06	3.187E+04	NUBASE
0899	36-Kr- 96	0.0+		0.08 s 8.75	β^- :48.15; β^-_m :48.15; β^-_n :3.70	0	2.675E+06	2.675E+06	4.396E+04	NUBASE
0900	36-Kr- 97	1.5+		0.063 s 6.35	β^- :93.30; β^-_m :3.35; β^-_n :3.35	0	3.334E+06	3.334E+06	8.766E+04	NUBASE
0901	36-Kr- 98	0.0+		0.046 s 17.39	β^-_m :93.00; β^-_n :7.00	0	2.895E+06	2.895E+06	9.605E+04	NUBASE
0902	36-Kr- 99	1.5+		0.04 s 27.50	β^- :89.00; β^-_m :5.50; β^-_n :5.50	0	3.554E+06	3.554E+06	1.775E+05	NUBASE
0903	36-Kr-100	0.0+		0.01 s 100	β^- :100.00	0	3.500E+06	3.500E+06		NUBASE
0904	37-Rb- 71	2.5-		1E-09 s 100	p:100.00	0			2.091E+06	NUBASE
0905	37-Rb- 72	3.0+		1.5E-06 s 100	p:100.00	0			1.511E+06	NUBASE
0906	37-Rb- 73	1.5-		3E-08 s 100	p:100.00	0			6.020E+05	NUBASE
0907	37-Rb- 74	0.0+		0.065 s 0.77	β^+ :100.00	3	4.473E+06	1.020E+06	1.421E+03	ENSDF
0908	37-Rb- 75	1.5-		19 s 6.32	β^+ :100.00	0	2.367E+06	2.367E+06		NUBASE
0909	37-Rb- 76	1.0-		36.5 s 1.64	β^+ :100.00	4	2.355E+06	3.330E+06		ENSDF
0910	37-Rb- 77	1.5-		3.77 m 0.02	β^+ :100.00	4	1.687E+06	1.516E+06		ENSDF
0911	37-Rb- 78	0.0+		17.66 m 0.01	β^+ :100.00	4	1.216E+06	4.059E+06		ENSDF
0912	37-Rb- 78M	4.0-	1.033E+05	5.74 m 0.01	β^+ :90.00; IT:10.00	4	1.449E+06	3.212E+06		ENSDF
0913	37-Rb- 79	2.5+		22.9 m 0.04	β^+ :100.00	4	8.071E+05	1.402E+06		ENSDF
0914	37-Rb- 80	1.0+		34 s 11.76	β^+ :100.00	4	2.034E+06	1.184E+06		ENSDF
0915	37-Rb- 81	1.5-		4.576 h ~	β^+ :4.52; β^+_m :95.48	0	6.857E+05	6.857E+05		NUBASE
0916	37-Rb- 81M	4.5+	8.620E+04	30.25 m 0.01	IT:96.20; β^+ :3.77; β^+_m :0.03	4	7.395E+04	2.835E+04		LNHB
0917	37-Rb- 82	1.0+		1.273 m ~	β^+ :100.00	4	1.412E+06	1.108E+06		ENSDF
0918	37-Rb- 82M	5.0-	6.890E+04	6.472 h ~	β^+ :100.00	4	7.956E+04	2.904E+06		ENSDF
0919	37-Rb- 83	2.5-		86.2 d ~	β^+ :25.00; β^+_m :75.00	4	8.636E+03	4.961E+05		UKPADD64
0920	37-Rb- 83M	4.5+	4.211E+04	7.8E-03 s 8.97	IT:100.00	0		4.211E+04		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0921	37-Rb- 84	2.0-		33.5 d ~	β^- :3.20; β^+ :96.80	5	1.440E+05	8.872E+05		UKPADD64
0922	37-Rb- 84M	6.0-	4.636E+05	20.4 m 0.01	IT:100.00	3	8.018E+04	3.829E+05		UKPADD64
0923	37-Rb- 85	2.5-								NUBASE
0924	37-Rb- 86	2.0-		18.64 d ~	β^+ :0.01; β^- :100.00	5	6.562E+05	9.378E+04		LNHB
0925	37-Rb- 86M	6.0-	5.560E+05	1.017 m 0.01	IT:100.00	3	9.960E+03	5.460E+05		UKPADD64
0926	37-Rb- 87	1.5-		4.75E+10 y ~	β^- :100.00	1	8.170E+04			ENSDF
0927	37-Rb- 88	2.0-		17.8 m 0.01	β^- :100.00	4	2.057E+06	6.672E+05		LNHB
0928	37-Rb- 89	1.5-		15.4 m 0.02	β^- :100.00	4	9.292E+05	2.234E+06		UKPADD64
0929	37-Rb- 90	0.0-		2.633 m 0.05	β^- :100.00	2	2.049E+06	1.982E+06		ENSDF
0930	37-Rb- 90M	3.0-	1.069E+05	4.3 m 0.03	IT:2.60; β^- :97.40	4	1.403E+06	3.241E+06		ENSDF
0931	37-Rb- 91	1.5-		58.4 s 0.68	β^- :100.00	4	1.612E+06	2.269E+06		ENSDF
0932	37-Rb- 92	0.0-		4.492 s 0.45	β^- :100.00	2	2.875E+06	1.750E+06		ENSDF
0933	37-Rb- 93	2.5-		5.8 s 0.69	β^- :98.60; β^- ,n:1.40	5	2.118E+06	2.602E+06	4.149E+03	UKPADD64
0934	37-Rb- 94	3.0-		2.702 s 0.26	β^- :89.90; β^- ,n:10.10	5	3.102E+06	2.747E+06	1.005E+04	UKPADD64
0935	37-Rb- 95	2.5-		0.381 s 0.79	β^- :91.40; β^- ,n:8.60	5	2.829E+06	2.642E+06	7.846E+03	UKPADD64
0936	37-Rb- 96	?		0.199 s 1.51	β^- :86.60; β^- ,n:13.40	4	3.849E+06	2.089E+06	1.093E+03	ENSDF
0937	37-Rb- 96M	1.0-		0.2 s 100	β^- :50.00; IT:50.00	0	1.952E+06	1.952E+06		NUBASE
0938	37-Rb- 97	1.5+		0.17 s 0.41	β^- :74.90; β^- ,n:25.10	4	3.775E+06	1.332E+06		ENSDF
0939	37-Rb- 98	?		0.114 s 4.39	β^- :86.15; β^- ,n:13.80; β^- ,2n:0.05	0	3.793E+06	3.793E+06	2.245E+05	NUBASE
0940	37-Rb- 98M	?	3.900E+05	0.096 s 3.12	β^- :100.00	0	4.272E+06	4.272E+06		NUBASE
0941	37-Rb- 99	2.5+		0.05 s 1.39	β^- :84.10; β^- ,n:15.90	0	3.476E+06	3.476E+06	3.059E+05	NUBASE
0942	37-Rb-100	3.0+		0.051 s 15.69	β^- :94.25; β^- ,n:5.60; β^- ,2n:0.15	0	4.353E+06	4.353E+06	1.053E+05	NUBASE
0943	37-Rb-101	1.5+		0.032 s 12.50	β^- :100.00	4	5.106E+06	4.263E+05	1.410E+03	ENSDF
0944	37-Rb-102	?		0.037 s 13.51	β^- :82.00; β^- ,n:18.00	0	4.443E+06	4.443E+06	4.063E+05	NUBASE
0945	38-Sr- 73	0.5-		0.025 s 100	β^+ :100.00	0	4.783E+06	4.783E+06		NUBASE
0946	38-Sr- 74	0.0+		0.05 s 100	β^+ :100.00	0	3.739E+06	3.739E+06		NUBASE
0947	38-Sr- 75	1.5-		0.088 s 3.41	β^+ :94.80; β^+ ,p:5.20	0	3.460E+06	3.460E+06	1.095E+05	NUBASE
0948	38-Sr- 76	0.0+		8.9 s 3.37	β^+ :100.00	0	2.080E+06	2.080E+06		NUBASE
0949	38-Sr- 77	2.5+		9 s 2.22	β^+ :100.00	4	2.612E+06	1.211E+06		ENSDF
0950	38-Sr- 78	0.0+		2.65 m 0.08	β^+ :100.00	0	1.254E+06	1.254E+06		NUBASE
0951	38-Sr- 79	1.5-		2.25 m 0.07	β^+ :100.00	0	1.775E+06	1.775E+06		NUBASE
0952	38-Sr- 80	0.0+		1.772 h ~	β^+ :100.00	4	6.339E+04	4.864E+05		ENSDF
0953	38-Sr- 81	0.5-		22.3 m 0.03	β^+ :99.90; β^+ ,m:0.10	0	1.309E+06	1.309E+06		NUBASE
0954	38-Sr- 82	0.0+		25.55 d ~	β^+ :100.00	3	5.041E+03	7.855E+03		ENSDF
0955	38-Sr- 83	3.5+		1.35 d ~	β^+ :100.00	4	1.490E+05	7.762E+05		UKPADD64
0956	38-Sr- 83M	0.5-	2.592E+05	4.95 s 2.42	IT:100.00	3	3.117E+04	2.281E+05		UKPADD64
0957	38-Sr- 84	0.0+								NUBASE
0958	38-Sr- 85	4.5+		64.849 d ~	β^+ :100.00	4	8.725E+03	5.187E+05		LNHB
0959	38-Sr- 85M	0.5-	2.387E+05	1.127 h ~	β^+ :13.40; IT:86.60	4	1.325E+04	2.159E+05		UKPADD64
0960	38-Sr- 86	0.0+								NUBASE
0961	38-Sr- 87	4.5+								NUBASE
0962	38-Sr- 87M	0.5-	3.885E+05	2.803 h ~	β^+ :0.30; IT:99.70	4	6.654E+04	3.195E+05		ENSDF
0963	38-Sr- 88	0.0+								NUBASE
0964	38-Sr- 89	2.5+		50.57 d ~	β^- :99.99; β^- ,m:0.01	4	5.846E+05	8.691E+01		LNHB

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
0965	38-Sr- 90	0.0+		28.79 y ~	β^- :100.00	1	1.740E+05			LNHB
0966	38-Sr- 91	2.5+		9.63 h ~	β^- :41.16; β^-_{m} :58.84	4	6.475E+05	7.072E+05		ENSDF
0967	38-Sr- 92	0.0+		2.71 h ~	β^- :100.00	4	1.799E+05	1.381E+06		UKPADD64
0968	38-Sr- 93	2.5+		7.423 m 0.01	β^- :74.98; β^-_{m} :25.02	4	7.946E+05	2.218E+06		ENSDF
0969	38-Sr- 94	0.0+		1.255 m 0.01	β^- :100.00	4	8.332E+05	1.427E+06		UKPADD64
0970	38-Sr- 95	0.5+		23.9 s 0.59	β^- :100.00	4	2.208E+06	1.118E+06		ENSDF
0971	38-Sr- 96	0.0+		1.06 s 2.83	β^- :100.00	4	1.972E+06	9.249E+05		ENSDF
0972	38-Sr- 97	0.5+		0.429 s 1.17	β^- :85.08; β^-_{m} :14.87; $\beta^-_{,n}$:0.03; $\beta^-_{,n_m}$:0.03	0	2.456E+06	2.456E+06	1.147E+02	NUBASE
0973	38-Sr- 98	0.0+		0.653 s 0.31	β^- :100.00	4	2.363E+06	5.774E+05		ENSDF
0974	38-Sr- 99	1.5+		0.27 s 3.70	β^- :100.00	4	3.200E+06	1.268E+06		ENSDF
0975	38-Sr-100	0.0+		0.202 s 1.49	β^- :99.22; $\beta^-_{,n}$:0.78	0	2.342E+06	2.342E+06	3.724E+03	NUBASE
0976	38-Sr-101	2.5-		0.118 s 2.54	β^- :97.63; $\beta^-_{,n}$:1.19; $\beta^-_{,n_m}$:1.19	0	3.114E+06	3.114E+06	2.197E+04	NUBASE
0977	38-Sr-102	0.0+		0.069 s 8.70	β^- :47.25; β^-_{m} :47.25; $\beta^-_{,n}$:5.50	0	2.795E+06	2.795E+06	5.168E+04	NUBASE
0978	38-Sr-103	?		0.05 s 100	β^- :100.00	0	3.797E+06	3.797E+06		NUBASE
0979	38-Sr-104	0.0+		0.03 s 100	β^- :100.00	0	3.503E+06	3.503E+06		NUBASE
0980	38-Sr-105	?		0.02 s 100	β^- :100.00	0	4.257E+06	4.257E+06		NUBASE
0981	39-Y - 76	?		5E-07 s 100	β^+ :50.00; p:50.00	0	2.590E+06	2.590E+06	3.155E+05	NUBASE
0982	39-Y - 77	2.5+		0.063 s 26.98	β^+ :90.00; p:10.00	0	3.268E+06	3.268E+06	4.100E+03	NUBASE
0983	39-Y - 78	0.0+		0.054 s 9.26	β^+ :100.00	0	3.548E+06	3.548E+06		NUBASE
0984	39-Y - 78M	5.0+		5.8E-03 s 8.62	β^+ :100.00	0	3.548E+06	3.548E+06		NUBASE
0985	39-Y - 79	2.5+		14.8 s 4.05	β^+ :100.00	0	2.372E+06	2.372E+06		NUBASE
0986	39-Y - 80	?		35 s 5.71	β^+ :100.00	4	3.186E+06	2.204E+06		ENSDF
0987	39-Y - 80M	1.0-	2.285E+05	4.8 s 6.25	IT:81.00; β^+ :19.00	0	5.900E+05	7.751E+05		NUBASE
0988	39-Y - 81	2.5+		1.173 m 0.02	β^+ :100.00	4	1.978E+06	1.177E+06		ENSDF
0989	39-Y - 82	1.0+		8.3 s 2.41	β^+ :100.00	0	2.606E+06	2.606E+06		NUBASE
0990	39-Y - 83	4.5+		7.08 m 0.01	β^+ :97.78; β^+_{m} :2.22	0	1.486E+06	1.486E+06		NUBASE
0991	39-Y - 83M	1.5-	6.198E+04	2.85 m 0.01	β^+_{m} :60.00; IT:40.00	0	8.536E+05	8.784E+05		NUBASE
0992	39-Y - 84	1.0+		4.6 s 4.35	β^+ :100.00	4	2.357E+06	1.279E+06		ENSDF
0993	39-Y - 84M	5.0-	5.000E+05	40 m 0.04	β^+ :100.00	4	1.222E+06	3.973E+06		ENSDF
0994	39-Y - 85	0.5-		2.68 h ~	β^+_{m} :100.00	0	1.007E+06	1.007E+06		NUBASE
0995	39-Y - 85M	4.5+	1.980E+04	4.86 h ~	β^+ :88.82; β^+_{m} :11.18; IT:~	0	1.085E+06	1.085E+06		NUBASE
0996	39-Y - 86	4.0-		14.74 h ~	β^+ :100.00	4	2.175E+05	3.570E+06		ENSDF
0997	39-Y - 86M	8.0+	2.183E+05	48 m 0.03	β^+ :0.69; IT:99.31	4	2.307E+04	2.201E+05		ENSDF
0998	39-Y - 87	0.5-		3.325 d ~	β^+_{m} :100.00	0	4.911E+05	4.911E+05		NUBASE
0999	39-Y - 87M	4.5+	3.808E+05	13.37 h ~	IT:98.43; β^+ :1.57	0	1.174E+04	3.866E+05		NUBASE
1000	39-Y - 88	4.0-		106.629 d ~	β^+ :100.00	4	6.334E+03	2.695E+06		LNHB
1001	39-Y - 88M	8.0+	6.746E+05	0.014 s 1.44	IT:100.00	0		6.746E+05		NUBASE
1002	39-Y - 89	0.5-								NUBASE
1003	39-Y - 89M	4.5+	9.090E+05	15.663 s 0.03	IT:100.00	3	7.246E+03	9.014E+05		ENSDF
1004	39-Y - 90	2.0-		2.671 d ~	β^- :100.00	4	9.338E+05	1.237E+00		ENSDF
1005	39-Y - 90M	7.0+	6.820E+05	3.19 h ~	IT:100.00; β^- :~; β^-_{m} :~	4	4.528E+04	6.353E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1051	40-Zr- 93	2.5+		1.53E+06 y ~	β^- :2.50; β^-_m :97.50	1	1.922E+04			ENSDF
1052	40-Zr- 94	0.0+		6E+15 y ~	$2\beta^-$:100.00	0	1.144E+06			ENSDF
1053	40-Zr- 95	2.5+		64.032 d ~	β^- :98.92; β^-_m :1.08	4	1.200E+05	7.328E+05		LNHB
1054	40-Zr- 96	0.0+		3.9E+19 y ~	$2\beta^-$:100.00	0	3.350E+06			ENSDF
1055	40-Zr- 97	0.5+		16.744 h ~	β^- :4.95; β^-_m :95.05	4	7.023E+05	1.591E+05		ENSDF
1056	40-Zr- 98	0.0+		30.7 s 1.30	β^- :100.00	1	9.100E+05			ENSDF
1057	40-Zr- 99	0.5+		2.2 s 4.55	β^-_m :36.80; β^- :63.20	4	1.539E+06	8.414E+05		UKPADD64
1058	40-Zr-100	0.0+		7.1 s 5.63	β^- :100.00	2	1.307E+06	2.413E+05		ENSDF
1059	40-Zr-101	1.5+		2.3 s 4.35	β^- :100.00	4	2.179E+06	5.581E+05		ENSDF
1060	40-Zr-102	0.0+		2.9 s 6.90	β^- :100.00	2	1.997E+06	2.369E+05		ENSDF
1061	40-Zr-103	2.5-		1.3 s 7.69	β^- :100.00	0	2.317E+06	2.317E+06		NUBASE
1062	40-Zr-104	0.0+		1.2 s 25	β^- :100.00	0	1.960E+06	1.960E+06		NUBASE
1063	40-Zr-105	2.5+		0.6 s 33.33	β^- :98.60; β^-_n :1.40	3	2.662E+06	1.764E+06	4.466E+03	UKPADD64
1064	40-Zr-106	0.0+		0.9 s 22.22	β^- :98.48; β^-_n :1.52	3	2.138E+06	1.091E+06	5.801E+03	UKPADD64
1065	40-Zr-107	2.5+		0.24 s 16.67	β^- :96.29; β^-_n :3.71	3	2.982E+06	2.201E+06	1.751E+04	UKPADD64
1066	40-Zr-108	0.0+		0.08 s 100	β^- :100.00	0	2.833E+06	2.833E+06		NUBASE
1067	40-Zr-109	?		0.06 s 100	β^- :100.00	0	3.607E+06	3.607E+06		NUBASE
1068	40-Zr-110	0.0+		0.03 s 100	β^- :100.00	0	3.240E+06	3.240E+06		NUBASE
1069	41-Nb- 81	1.5-		4.4E-08 s 100	p :50.00; β^+ :50.00	0	1.835E+06	1.835E+06	3.755E+05	NUBASE
1070	41-Nb- 82	0.0+		0.05 s 10	β^+ :100.00	3	4.839E+06	1.020E+06	1.496E+03	ENSDF
1071	41-Nb- 83	2.5+		4.1 s 7.32	β^+ :100.00	0	2.500E+06	2.500E+06		NUBASE
1072	41-Nb- 84	3.0+		12 s 25	β^+ :100.00	4	3.831E+06	1.728E+06		ENSDF
1073	41-Nb- 85	4.5+		20.9 s 3.35	β^+ :100.00	0	2.000E+06	2.000E+06		NUBASE
1074	41-Nb- 85M	0.5-	7.590E+05	12 s 41.67	β^+_m :100.00	0	2.156E+06	2.156E+06		NUBASE
1075	41-Nb- 86	6.0+		1.467 m 0.02	β^+ :100.00	0	2.657E+06	2.657E+06		NUBASE
1076	41-Nb- 86M	?	2.500E+05	56 s 14.29	β^+ :100.00	0	2.740E+06	2.740E+06		NUBASE
1077	41-Nb- 87	0.5-		3.75 m 0.04	β^+ :100.00	4	1.774E+06	1.220E+06		ENSDF
1078	41-Nb- 87M	4.5+	3.840E+03	2.6 m 0.06	β^+ :100.00	4	1.390E+06	1.767E+06		ENSDF
1079	41-Nb- 88	8.0+		14.5 m 0.01	β^+ :100.00	0	2.518E+06	2.518E+06		NUBASE
1080	41-Nb- 88M	4.0-	3.900E+05	7.8 m 0.02	β^+ :100.00	0	2.648E+06	2.648E+06		NUBASE
1081	41-Nb- 89	4.5+		2.03 h ~	β^+ :98.77; β^+_m :1.23	4	1.105E+06	1.365E+06		ENSDF
1082	41-Nb- 89M	0.5-		1.1 h ~	β^+_m :100.00	0	1.210E+06	1.210E+06		NUBASE
1083	41-Nb- 90	8.0+		14.6 h ~	β^+ :1.81; β^+_m :98.19	0	1.278E+06	1.278E+06		NUBASE
1084	41-Nb- 90M	4.0-	1.247E+05	18.81 s 0.32	IT:100.00	0		1.247E+05		NUBASE
1085	41-Nb- 90N	1.0+	3.820E+05	6.19E-03 s 1.29	IT _m :100.00	0		2.573E+05		NUBASE
1086	41-Nb- 91	4.5+		680.016 y ~	β^+ :100.00	3	5.880E+03	1.257E+04		UKPADD64
1087	41-Nb- 91M	0.5-	1.045E+05	60.9 d ~	IT:97.60; β^+ :2.40	4	9.346E+04	3.803E+04		UKPADD64
1088	41-Nb- 92	7.0+		3.5E+07 y ~	β^+ :100.00	4	7.932E+03	1.503E+06		UKPADD64
1089	41-Nb- 92M	2.0+	1.355E+05	10.15 d ~	β^+ :100.00	4	6.447E+03	9.704E+05		UKPADD64
1090	41-Nb- 93	4.5+								NUBASE
1091	41-Nb- 93M	0.5-	3.080E+04	16.126 y ~	IT:100.00	3	2.896E+04	1.955E+03		UKPADD64
1092	41-Nb- 94	6.0+		1.999E+04 y ~	β^- :100.00	4	1.683E+05	1.572E+06		UKPADD64
1093	41-Nb- 94M	3.0+	4.095E+04	6.26 m ~	β^- :0.50; IT:99.50	4	3.509E+04	1.227E+04		UKPADD64
1094	41-Nb- 95	4.5+		34.991 d ~	β^- :100.00	4	4.452E+04	7.645E+05		LNHB
1095	41-Nb- 95M	0.5-	2.357E+05	3.608 d ~	β^- :5.60; IT:94.40	4	1.787E+05	7.069E+04		ENSDF
1096	41-Nb- 96	6.0+		23.35 h ~	β^- :100.00	4	2.497E+05	2.460E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1097	41-Nb- 97	4.5+		1.202 h ~	β^- :100.00	4	4.684E+05	6.642E+05		ENSDF
1098	41-Nb- 97M	0.5-	7.434E+05	52.7 s 3.42	IT:100.00	3	1.440E+04	7.280E+05		ENSDF
1099	41-Nb- 98	1.0+		2.86 s 2.10	β^- :100.00	4	1.965E+06	3.245E+05		ENSDF
1100	41-Nb- 98M	5.0+	8.400E+04	51.3 m 0.01	β^- :100.00	4	7.714E+05	2.782E+06		ENSDF
1101	41-Nb- 99	4.5+		15 s 1.33	β^- :100.00	4	1.514E+06	1.743E+05		ENSDF
1102	41-Nb- 99M	0.5-	3.653E+05	2.6 m 0.13	β^- :98.00; IT:2.00	4	1.416E+06	6.504E+05		ENSDF
1103	41-Nb-100	1.0+		1.5 s 13.33	β^- :100.00	4	2.493E+06	7.082E+05		ENSDF
1104	41-Nb-100M	4.0+	4.800E+05	2.9 s 6.90	β^- :100.00	4	2.047E+06	2.064E+06		UKPADD64
1105	41-Nb-101	2.5+		7.1 s 4.23	β^- :100.00	4	1.863E+06	2.446E+05		ENSDF
1106	41-Nb-102	1.0+		1.3 s 15.38	β^- :100.00	0	2.402E+06	2.402E+06		NUBASE
1107	41-Nb-102M	?		4.3 s 9.30	β^- :100.00	2	2.276E+06	2.094E+06		ENSDF
1108	41-Nb-103	2.5+		1.5 s 13.33	β^- :100.00	0	1.843E+06	1.843E+06		NUBASE
1109	41-Nb-104	1.0+		4.9 s 6.12	β^- :99.94; β^- ,n:0.06	0	2.702E+06	2.702E+06	8.381E+01	NUBASE
1110	41-Nb-104M	?	2.200E+05	0.94 s 4.26	β^- :99.95; β^- ,n:0.05	0	2.775E+06	2.775E+06	9.734E+01	NUBASE
1111	41-Nb-105	2.5+		2.95 s 2.03	β^- :98.30; β^- ,n:1.70	0	2.133E+06	2.133E+06	5.987E+03	NUBASE
1112	41-Nb-106	2.0+		0.92 s 4.35	β^- :95.50; β^- ,n:4.50	0	2.939E+06	2.939E+06	2.440E+04	NUBASE
1113	41-Nb-107	2.5+		0.3 s 3	β^- :94.00; β^- ,n:6.00	0	2.562E+06	2.562E+06	4.896E+04	NUBASE
1114	41-Nb-108	2.0+		0.193 s 8.81	β^- :93.80; β^- ,n:6.20	0	3.379E+06	3.379E+06	6.461E+04	NUBASE
1115	41-Nb-109	2.5+		0.19 s 31.58	β^- :87.35; β^- ,n:12.65	3	3.158E+06	2.263E+06	6.840E+04	UKPADD64
1116	41-Nb-110	2.0+		0.17 s 11.76	β^- :60.00; β^- ,n:40.00	0	2.924E+06	2.924E+06	5.559E+05	NUBASE
1117	41-Nb-111	2.5+		0.08 s 100	β^- :100.00	0	3.490E+06	3.490E+06		NUBASE
1118	41-Nb-112	2.0+		0.06 s 100	β^- :100.00	0	4.343E+06	4.343E+06		NUBASE
1119	41-Nb-113	2.5+		0.03 s 100	β^- :100.00	0	3.980E+06	3.980E+06		NUBASE
1120	42-Mo- 83	1.5-		0.023 s 82.61	β^+ :100.00	0	3.737E+06	3.737E+06		NUBASE
1121	42-Mo- 84	0.0+		3.8E-03 s 23.68	β^+ :100.00	0	2.023E+06	2.023E+06		NUBASE
1122	42-Mo- 85	0.5-		3.2 s 6.25	β^+ :100.00	0	2.430E+06	2.430E+06		NUBASE
1123	42-Mo- 86	0.0+		19.6 s 5.61	β^+ :50.00; β^+ ,m:50.00	0	1.715E+06	1.715E+06		NUBASE
1124	42-Mo- 87	3.5+		14.02 s 1.85	β^+ :100.00	4	2.322E+03	1.239E+06		ENSDF
1125	42-Mo- 88	0.0+		8 m 0.04	β^+ :50.00; β^+ ,m:50.00	0	1.058E+06	1.058E+06		NUBASE
1126	42-Mo- 89	4.5+		2.11 m 0.08	β^+ :100.00	4	1.955E+06	1.226E+06		ENSDF
1127	42-Mo- 89M	0.5-	3.875E+05	0.19 s 7.89	IT:100.00	0		3.875E+05		NUBASE
1128	42-Mo- 90	0.0+		5.56 h ~	β^+ :6.70; β^+ ,n:93.30	0	7.109E+05	7.109E+05		NUBASE
1129	42-Mo- 91	4.5+		15.49 m ~	β^+ :99.97; β^+ ,m:0.03	4	1.451E+06	9.776E+05		ENSDF
1130	42-Mo- 91M	0.5-	6.529E+05	1.077 m 0.02	β^+ :~; β^+ ,m:50.00; IT:50.00	4	5.563E+05	1.387E+06		ENSDF
1131	42-Mo- 92	0.0+		1.9E+20 y ~	$2\beta^+$:100.00	0	1.649E+06			NUBASE
1132	42-Mo- 93	2.5+		4000.009 y ~	β^+ :12.00; β^+ ,m:88.00	4	5.086E+03	1.073E+04		LNHB
1133	42-Mo- 93M	10.5+	2.425E+06	6.85 h ~	β^+ :0.12; IT:99.88	4	1.072E+05	2.318E+06		UKPADD64
1134	42-Mo- 94	0.0+								NUBASE
1135	42-Mo- 95	2.5+								NUBASE
1136	42-Mo- 96	0.0+								NUBASE
1137	42-Mo- 97	2.5+								NUBASE
1138	42-Mo- 98	0.0+		1E+14 y ~	$2\beta^-$:100.00	0	1.120E+05			ENSDF
1139	42-Mo- 99	0.5+		2.748 d ~	β^- :11.94; β^- ,m:88.06	4	3.937E+05	1.484E+05		ENSDF
1140	42-Mo-100	0.0+		9.9E+18 y ~	$2\beta^-$:100.00	0	3.034E+06			ENSDF
1141	42-Mo-101	0.5+		14.61 m ~	β^- :100.00	4	5.433E+05	1.424E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1142	42-Mo-102	0.0+		11.3 m 0.03	β^- :100.00	2	3.491E+05	1.845E+04		ENSDF
1143	42-Mo-103	1.5+		1.132 m 0.01	β^- :100.00	4	1.316E+06	6.362E+05		UKPADD64
1144	42-Mo-104	0.0+		1 m 0.06	β^- :100.00	0	7.200E+05	7.200E+05		NUBASE
1145	42-Mo-105	2.5-		35.6 s 4.49	β^- :100.00	4	1.922E+06	5.515E+05		ENSDF
1146	42-Mo-106	0.0+		8.73 s 1.37	β^- :100.00	0	1.173E+06	1.173E+06		NUBASE
1147	42-Mo-107	3.5-		3.5 s 14.29	β^- :100.00	0	2.053E+06	2.053E+06		NUBASE
1148	42-Mo-108	0.0+		1.09 s 1.83	β^- :100.00	0	1.550E+06	1.550E+06		NUBASE
1149	42-Mo-109	2.5+		0.5 s 40	β^- :99.47; β^- ,n:0.53	3	2.675E+06	1.876E+06	9.118E+02	UKPADD64
1150	42-Mo-110	0.0+		0.3 s 13.33	β^- :100.00	0	1.833E+06	1.833E+06		NUBASE
1151	42-Mo-111	2.5+		0.5 s 40	β^- :98.97; β^- ,n:1.03	3	3.098E+06	2.413E+06	3.572E+03	UKPADD64
1152	42-Mo-112	0.0+		1 s 20	β^- :97.92; β^- ,n:2.08	3	2.552E+06	1.354E+06	7.960E+03	UKPADD64
1153	42-Mo-113	?		0.1 s 100	β^- :100.00	0	3.193E+06	3.193E+06		NUBASE
1154	42-Mo-114	0.0+		0.08 s 100	β^- :100.00	0	2.807E+06	2.807E+06		NUBASE
1155	42-Mo-115	?		0.06 s 100	β^- :100.00	0	3.600E+06	3.600E+06		NUBASE
1156	43-Tc- 85	0.5-		1.1E-07 s 100	p:50.00; β^+ :50.00	0	1.905E+06	1.905E+06	4.255E+05	NUBASE
1157	43-Tc- 86	0.0+		0.055 s 10.91	β^+ :100.00	0	3.783E+06	3.783E+06		NUBASE
1158	43-Tc- 87	0.5-		2.2 s 9.09	β^+ :100.00	0	2.857E+06	2.857E+06		NUBASE
1159	43-Tc- 87M	4.5+	2.000E+04	2 s 100	β^+ :50.00; IT:50.00	0	1.432E+06	1.442E+06		NUBASE
1160	43-Tc- 88	?		5.8 s 3.45	β^+ :100.00	0	3.330E+06	3.330E+06		NUBASE
1161	43-Tc- 88M	?		6.4 s 12.50	β^+ :100.00	0	3.330E+06	3.330E+06		NUBASE
1162	43-Tc- 89	4.5+		12.8 s 7.03	β^+ :50.00; β^+ _m :50.00	0	2.323E+06	2.323E+06		NUBASE
1163	43-Tc- 89M	0.5-	6.260E+04	12.9 s 6.20	β^+ :49.99; β^+ _m :49.99; IT:0.01	0	2.344E+06	2.344E+06		NUBASE
1164	43-Tc- 90	1.0+		8.7 s 2.30	β^+ :100.00	4	3.348E+06	1.751E+06		ENSDF
1165	43-Tc- 90M	8.0+	3.100E+05	49.2 s 0.81	β^+ :100.00	0	3.089E+06	3.089E+06		NUBASE
1166	43-Tc- 91	4.5+		3.14 m 0.01	β^+ :99.32; β^+ _m :0.68	0	2.073E+06	2.073E+06		NUBASE
1167	43-Tc- 91M	0.5-	1.393E+05	3.3 m 0.05	β^+ :2.46; β^+ _m :96.54; IT:1.00	0	1.890E+06	1.891E+06		NUBASE
1168	43-Tc- 92	8.0+		4.25 m 0.06	β^+ :100.00	0	2.623E+06	2.623E+06		NUBASE
1169	43-Tc- 93	4.5+		2.75 h ~	β^+ :100.00	4	4.309E+04	1.568E+06		ENSDF
1170	43-Tc- 93M	0.5-	3.918E+05	43.5 m 0.04	β^+ :23.40; IT:76.60	4	9.077E+04	8.077E+05		ENSDF
1171	43-Tc- 94	7.0+		4.883 h ~	β^+ :100.00	4	4.314E+04	2.649E+06		ENSDF
1172	43-Tc- 94M	2.0+	7.550E+04	52 m 0.03	β^+ :100.00	4	7.540E+05	1.930E+06		ENSDF
1173	43-Tc- 95	4.5+		20 h ~	β^+ :100.00	4	6.296E+03	7.965E+05		ENSDF
1174	43-Tc- 95M	0.5-	3.890E+04	61 d ~	β^+ :96.12; IT:3.88	4	1.477E+04	6.885E+05		ENSDF
1175	43-Tc- 96	7.0+		4.28 d ~	β^+ :100.00	4	5.306E+03	2.503E+06		ENSDF
1176	43-Tc- 96M	4.0+	3.428E+04	51.5 m 0.03	IT:98.00; β^+ :2.00	0	2.005E+04	5.365E+04		NUBASE
1177	43-Tc- 97	4.5+		2.6E+06 y ~	β^+ :100.00	3	5.653E+03	1.168E+04		UKPADD64
1178	43-Tc- 97M	0.5-	9.660E+04	90.2 d ~	IT:100.00	3	8.704E+04	9.496E+03		UKPADD64
1179	43-Tc- 98	6.0+		4.2E+06 y ~	β^- :100.00	2	1.180E+05	1.413E+06		ENSDF
1180	43-Tc- 99	4.5+		2.14E+05 y ~	β^- :100.00	4	8.540E+04	7.040E-01		LNHB
1181	43-Tc- 99M	0.5-	1.427E+05	6.01 h ~	IT:100.00; β^- :~	4	1.549E+04	1.265E+05		ENSDF
1182	43-Tc-100	1.0+		15.8 s 0.63	β^- :100.00	4	1.315E+06	8.272E+04		ENSDF
1183	43-Tc-101	4.5+		14.2 m 0.01	β^- :100.00	4	4.786E+05	3.359E+05		ENSDF
1184	43-Tc-102	1.0+		5.28 s 2.84	β^- :100.00	2	1.945E+06	8.076E+04		ENSDF
1185	43-Tc-102M	?		4.35 m 0.03	β^- :100.00	2	7.798E+05	2.511E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1186	43-Tc-103	2.5+		54.2 s 1.48	β^- :100.00	4	9.810E+05	2.484E+05		ENSDF
1187	43-Tc-104	3.0+		18.3 m 0.03	β^- :100.00	4	1.595E+06	1.890E+06		ENSDF
1188	43-Tc-105	1.5-		7.6 m 0.02	β^- :100.00	2	1.310E+06	6.684E+05		ENSDF
1189	43-Tc-106	?		36 s 2.78	β^- :100.00	4	1.943E+06	2.191E+06		ENSDF
1190	43-Tc-107	?		21.2 s 0.94	β^- :100.00	4	2.056E+06	5.148E+05		ENSDF
1191	43-Tc-108	2.0+		5.17 s 1.35	β^- :100.00	0	2.573E+06	2.573E+06		NUBASE
1192	43-Tc-109	1.5-		0.86 s 4.65	β^- :99.92; β^- ,n:0.08	0	2.102E+06	2.102E+06	2.117E+02	NUBASE
1193	43-Tc-110	2.0+		0.92 s 3.26	β^- :99.96; β^- ,n:0.04	0	3.006E+06	3.006E+06	1.819E+02	NUBASE
1194	43-Tc-111	?		0.29 s 6.90	β^- :100.00	4	3.219E+06	4.054E+05		ENSDF
1195	43-Tc-112	2.0+		0.29 s 6.90	β^- :98.50; β^- ,n:1.50	0	3.122E+06	3.122E+06	9.745E+03	NUBASE
1196	43-Tc-113	2.5+		0.13 s 30.77	β^- :92.81; β^- ,n:7.19	3	2.732E+06	1.822E+06	3.352E+04	UKPADD64
1197	43-Tc-114	2.0+		0.2 s 20	β^- :93.46; β^- ,n:6.54	3	3.578E+06	3.257E+06	3.288E+04	UKPADD64
1198	43-Tc-115	2.5+		0.27 s 18.52	β^- :85.66; β^- ,n:14.34	3	2.995E+06	2.162E+06	7.974E+04	UKPADD64
1199	43-Tc-116	2.0+		0.12 s 16.67	β^- :87.78; β^- ,n:12.22	3	3.693E+06	3.495E+06	7.173E+04	UKPADD64
1200	43-Tc-117	1.5-		0.04 s 100	β^- :100.00	0	3.387E+06	3.387E+06		NUBASE
1201	43-Tc-118	2.0+		0.03 s 100	β^- :100.00	0	4.240E+06	4.240E+06		NUBASE
1202	44-Ru- 87	0.5-		0.05 s 100	β^+ :100.00	0	3.927E+06	3.927E+06		NUBASE
1203	44-Ru- 88	0.0+		1.3 s 23.08	β^+ :50.00; β^+ _m :50.00	0	2.353E+06	2.353E+06		NUBASE
1204	44-Ru- 89	3.5+		1.38 s 7.97	β^+ :50.00; β^+ _m :50.00	0	2.766E+06	2.766E+06		NUBASE
1205	44-Ru- 90	0.0+		11 s 27.27	β^+ :50.00; β^+ _m :50.00	0	1.915E+06	1.915E+06		NUBASE
1206	44-Ru- 91	4.5+		9 s 11.11	β^+ :100.00	0	2.440E+06	2.440E+06		NUBASE
1207	44-Ru- 91M	0.5-	4.000E+05	7.6 s 10.53	β^+ _m :100.00	0	2.527E+06	2.527E+06		NUBASE
1208	44-Ru- 92	0.0+		3.65 m 0.02	β^+ :100.00	0	1.508E+06	1.508E+06		NUBASE
1209	44-Ru- 93	4.5+		59.7 s 1.01	β^+ :100.00	4	2.340E+06	1.131E+06		ENSDF
1210	44-Ru- 93M	0.5-	7.344E+05	10.8 s 2.78	β^+ _m :77.97; IT:22.00; β^+ ,p:0.03	0	1.735E+06	1.897E+06	2.012E+02	NUBASE
1211	44-Ru- 94	0.0+		51.8 m 0.02	β^+ :~; β^+ _m :100.00	4	5.005E+03	5.195E+05		ENSDF
1212	44-Ru- 95	2.5+		1.643 h ~	β^+ :97.39; β^+ _m :2.61	4	8.172E+04	1.238E+06		ENSDF
1213	44-Ru- 96	0.0+		6.7E+16 y ~	2 β^+ :100.00	0	2.718E+06			NUBASE
1214	44-Ru- 97	2.5+		2.9 d ~	β^+ :99.96; β^+ _m :0.04	4	1.233E+04	2.407E+05		ENSDF
1215	44-Ru- 98	0.0+								NUBASE
1216	44-Ru- 99	2.5+								NUBASE
1217	44-Ru-100	0.0+								NUBASE
1218	44-Ru-101	2.5+								NUBASE
1219	44-Ru-102	0.0+								NUBASE
1220	44-Ru-103	1.5+		39.26 d ~	β^- :1.20; β^- _m :98.80	4	6.656E+04	4.961E+05		ENSDF
1221	44-Ru-103M	5.5-	2.380E+05	1.69E-03 s 4.14	IT:100.00	3	2.249E+04	2.159E+05		ENSDF
1222	44-Ru-104	0.0+								NUBASE
1223	44-Ru-105	1.5+		4.44 h ~	β^- :71.61; β^- _m :28.39	4	4.131E+05	7.379E+05		ENSDF
1224	44-Ru-106	0.0+		1.02 y ~	β^- :100.00	1	1.010E+04			LNHB
1225	44-Ru-107	2.5+		3.75 m 0.02	β^- :100.00	4	1.084E+06	3.453E+05		ENSDF
1226	44-Ru-108	0.0+		4.55 m 0.02	β^- :100.00	0	4.500E+05	4.500E+05		NUBASE
1227	44-Ru-109	2.5+		34.5 s 1.45	β^- :100.00	4	1.044E+06	1.664E+06		ENSDF
1228	44-Ru-110	0.0+		11.6 s 5.17	β^- :100.00	4	1.157E+06	3.472E+04		ENSDF
1229	44-Ru-111	2.5+		2.12 s 3.30	β^- :100.00	0	1.896E+06	1.896E+06		NUBASE
1230	44-Ru-112	0.0+		1.75 s 4	β^- :100.00	0	1.420E+06	1.420E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1231	44-Ru-113	?		0.8 s	7.50	β^- :100.00	4	2.695E+06	5.828E+05		ENSDF
1232	44-Ru-113M	5.5-	1.300E+05	0.51 s	5.88	IT:50.00; β^- :50.00	0	1.102E+06	1.167E+06		NUBASE
1233	44-Ru-114	0.0+		0.53 s	11.32	β^- :100.00	0	1.700E+06	1.700E+06		NUBASE
1234	44-Ru-115	2.5+		0.7 s	28.57	β^- :99.77; β^- ,n:0.23	3	2.538E+06	1.806E+06	6.150E+02	UKPADD64
1235	44-Ru-116	0.0+		1.7 s	17.65	β^- :98.92; β^- ,n:1.08	3	1.843E+06	9.860E+05	3.609E+03	UKPADD64
1236	44-Ru-117	2.5+		0.34 s	20.59	β^- :97.95; β^- ,n:2.05	3	2.697E+06	2.026E+06	8.306E+03	UKPADD64
1237	44-Ru-118	0.0+		0.7 s	28.57	β^- :95.89; β^- ,n:4.11	3	2.094E+06	1.118E+06	1.780E+04	UKPADD64
1238	44-Ru-119	2.5+		0.19 s	21.05	β^- :95.64; β^- ,n:4.36	3	2.920E+06	2.311E+06	2.066E+04	UKPADD64
1239	44-Ru-120	0.0+		0.08 s	100	β^- :100.00	0	2.763E+06	2.763E+06		NUBASE
1240	45-Rh- 89	3.5+		0.01 s	100	β^+ :100.00	0	3.950E+06	3.950E+06		NUBASE
1241	45-Rh- 90	0.0+		0.015 s	46.67	β^+ :100.00	0	4.030E+06	4.030E+06		NUBASE
1242	45-Rh- 90M	9.0+		1.1E-03 s	27.27	β^+ :100.00	0	4.030E+06	4.030E+06		NUBASE
1243	45-Rh- 91	3.5+		1.74 s	8.05	β^+ :100.00	0	3.187E+06	3.187E+06		NUBASE
1244	45-Rh- 92	6.0+		4.3 s	30.23	β^+ :100.00	0	3.683E+06	3.683E+06		NUBASE
1245	45-Rh- 93	4.5+		13.9 s	11.51	β^+ :50.00; β^+ _m :50.00	0	2.578E+06	2.578E+06		NUBASE
1246	45-Rh- 94	3.0+		1.177 m	0.01	β^+ :100.00	4	2.883E+06	3.307E+06		ENSDF
1247	45-Rh- 94M	8.0+	3.000E+05	25.8 s	0.78	β^+ :100.00	4	2.812E+06	3.663E+06		ENSDF
1248	45-Rh- 95	4.5+		5.02 m	0.03	β^+ :100.00	0	1.703E+06	1.703E+06		NUBASE
1249	45-Rh- 95M	0.5-	5.433E+05	1.96 m	0.03	IT:88.00; β^+ :12.00	0	2.261E+05	7.042E+05		NUBASE
1250	45-Rh- 96	6.0+		9.9 m	0.02	β^+ :100.00	0	2.131E+06	2.131E+06		NUBASE
1251	45-Rh- 96M	3.0+	5.200E+04	1.51 m	0.02	IT:60.00; β^+ :40.00	0	8.593E+05	8.905E+05		NUBASE
1252	45-Rh- 97	4.5+		30.7 m	0.03	β^+ :100.00	4	5.208E+05	1.355E+06		ENSDF
1253	45-Rh- 97M	0.5-	2.588E+05	46.2 m	0.06	β^+ :94.40; IT:5.60	4	1.866E+05	2.092E+06		ENSDF
1254	45-Rh- 98	2.0+		8.72 m	0.02	β^+ :100.00	4	1.321E+06	1.774E+06		ENSDF
1255	45-Rh- 98M	5.0+	6.000E+04	3.6 m	0.09	IT:89.00; β^+ :11.00	0	1.873E+05	2.407E+05		NUBASE
1256	45-Rh- 99	0.5-		16.1 d	~	β^+ :100.00	0	6.810E+05	6.810E+05		NUBASE
1257	45-Rh- 99M	4.5+	6.430E+04	4.7 h	~	β^+ :99.84; IT:0.16	0	7.013E+05	7.014E+05		NUBASE
1258	45-Rh-100	1.0-		20.8 h	~	β^+ :100.00	4	4.597E+04	2.742E+06		ENSDF
1259	45-Rh-100M	5.0+	1.076E+05	4.6 m	0.07	IT:98.30; β^+ :1.70	0	2.121E+04	1.270E+05		NUBASE
1260	45-Rh-101	0.5-		3.3 y	~	β^+ :100.00	4	2.554E+04	2.878E+05		ENSDF
1261	45-Rh-101M	4.5+	1.573E+05	4.34 d	~	β^+ :93.60; IT:6.40	0	3.271E+04	7.550E+04		NUBASE
1262	45-Rh-102	6.0+		2.902 y	~	β^+ :100.00	4	1.216E+04	2.122E+06		UKPADD64
1263	45-Rh-102M	2.0-	7.000E+04	208 d	~	β^- :20.00; β^+ :75.00; IT:5.00	5	1.736E+05	4.932E+05		UKPADD64
1264	45-Rh-103	0.5-									NUBASE
1265	45-Rh-103M	3.5+	3.976E+04	56.114 m	1.67	IT:100.00	3	3.581E+04	1.686E+03		LNHB
1266	45-Rh-104	1.0+		42.3 s	0.95	β^- :99.55; β^+ :0.45	5	9.805E+05	1.502E+04		UKPADD64
1267	45-Rh-104M	5.0+	1.290E+05	4.34 m	0.01	β^- :0.13; IT:99.87	4	8.620E+04	4.552E+04		UKPADD64
1268	45-Rh-105	3.5+		1.473 d	~	β^- :100.00	4	1.535E+05	7.727E+04		ENSDF
1269	45-Rh-105M	0.5-	1.296E+05	40 s	100	IT:100.00	3	9.242E+04	3.459E+04		ENSDF
1270	45-Rh-106	1.0+		30 s	0.67	β^- :100.00	4	1.411E+06	2.043E+05		LNHB
1271	45-Rh-106M	6.0+	1.370E+05	2.2 h	~	β^- :100.00	4	3.216E+05	2.759E+06		UKPADD64
1272	45-Rh-107	3.5+		21.7 m	0.03	β^- :100.00	4	4.321E+05	3.119E+05		ENSDF
1273	45-Rh-108	1.0+		16.8 s	2.98	β^- :100.00	2	1.854E+06	3.171E+05		ENSDF
1274	45-Rh-108M	5.0+		6 m	0.08	β^- :100.00	0	1.501E+06	1.501E+06		NUBASE
1275	45-Rh-109	3.5+		1.333 m	0.04	β^- :50.00; β^- _m :50.00	0	8.338E+05	8.338E+05		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1276	45-Rh-110	4.0+		28.5 s 5.26	β^- :100.00	4	1.182E+06	2.554E+06		UKPADD64
1277	45-Rh-110M	1.0+	1.000E+05	3.2 s 6.25	β^- :100.00	4	2.266E+06	3.360E+05		UKPADD64
1278	45-Rh-111	3.5+		11 s 9.09	β^- :99.60; β^-_{m} :0.40	0	1.215E+06	1.215E+06		NUBASE
1279	45-Rh-112	1.0+		2.1 s 14.29	β^- :100.00	2	2.873E+06	1.924E+05		ENSDF
1280	45-Rh-112M	?	3.600E+05	6.8 s 2.94	β^- :100.00	2	1.909E+06	2.261E+06		ENSDF
1281	45-Rh-113	3.5+		2.8 s 4.29	β^- :100.00	0	1.670E+06	1.670E+06		NUBASE
1282	45-Rh-114	1.0+		1.85 s 2.70	β^- :100.00	4	1.957E+06	4.068E+05		ENSDF
1283	45-Rh-114M	?	2.000E+05	1.85 s 2.70	β^- :100.00	0	2.689E+06	2.689E+06		NUBASE
1284	45-Rh-115	3.5+		0.99 s 5.05	β^- :85.48; β^-_{m} :14.52	0	2.059E+06	2.059E+06		NUBASE
1285	45-Rh-116	1.0+		0.68 s 8.82	β^- :100.00	4	3.445E+06	7.345E+05		ENSDF
1286	45-Rh-116M	6.0-	1.500E+05	0.57 s 8.77	β^- :100.00	2	2.611E+06	2.167E+06		ENSDF
1287	45-Rh-117	3.5+		0.44 s 9.09	β^- :100.00	0	2.527E+06	2.527E+06		NUBASE
1288	45-Rh-118	1.0+		0.32 s 18.75	β^- :97.08; $\beta^-_{,n}$:2.92	3	3.094E+06	2.494E+06	1.216E+04	UKPADD64
1289	45-Rh-119	3.5+		0.3 s 100	β^- :100.00	0	2.793E+06	2.793E+06		NUBASE
1290	45-Rh-120	3.5+		0.17 s 17.65	β^- :94.07; $\beta^-_{,n}$:5.93	3	3.261E+06	2.837E+06	2.919E+04	UKPADD64
1291	45-Rh-121	3.5+		0.25 s 20	β^- :86.43; $\beta^-_{,n}$:13.57	3	2.671E+06	1.852E+06	7.406E+04	UKPADD64
1292	45-Rh-122	?		0.05 s 100	β^- :100.00	0	3.930E+06	3.930E+06		NUBASE
1293	46-Pd- 91	3.5+		0.01 s 100	β^+ :100.00	0	3.900E+06	3.900E+06		NUBASE
1294	46-Pd- 92	0.0+		1.1 s 27.27	β^+ :100.00	0	2.620E+06	2.620E+06		NUBASE
1295	46-Pd- 93	4.5+		1.07 s 11.21	β^+ :100.00	0	3.157E+06	3.157E+06		NUBASE
1296	46-Pd- 94	0.0+		9 s 5.56	β^+ :100.00	0	2.197E+06	2.197E+06		NUBASE
1297	46-Pd- 95	4.5+		10 s 100	β^+ :50.00; β^+_{m} :50.00	0	2.639E+06	2.639E+06		NUBASE
1298	46-Pd- 95M	10.5+	1.870E+06	13.3 s 2.26	β^+ :94.10; IT:5.00; β^+,p :0.90	0	3.171E+06	3.265E+06	1.575E+04	NUBASE
1299	46-Pd- 96	0.0+		2.033 m 0.03	$\beta^+_{,~}$; β^+_{m} :100.00	4	2.213E+05	1.436E+06		ENSDF
1300	46-Pd- 97	2.5+		3.1 m 0.05	β^+ :98.31; β^+_{m} :1.69	4	7.700E+05	2.205E+06		ENSDF
1301	46-Pd- 98	0.0+		17.7 m 0.03	β^+ :100.00	4	4.382E+04	4.160E+05		ENSDF
1302	46-Pd- 99	2.5+		21.4 m 0.02	β^+ :2.95; β^+_{m} :97.05	4	4.243E+05	1.260E+06		ENSDF
1303	46-Pd-100	0.0+		3.63 d ~	β^+ :100.00	4	4.327E+04	1.228E+05		ENSDF
1304	46-Pd-101	2.5+		8.47 h ~	β^+ :0.27; β^+_{m} :99.73	4	3.117E+04	3.509E+05		ENSDF
1305	46-Pd-102	0.0+								NUBASE
1306	46-Pd-103	2.5+		16.98 d ~	β^+ :0.03; β^+_{m} :99.97	4	5.883E+03	1.468E+04		UKPADD64
1307	46-Pd-104	0.0+								NUBASE
1308	46-Pd-105	2.5+								NUBASE
1309	46-Pd-106	0.0+								NUBASE
1310	46-Pd-107	2.5+		6.5E+06 y ~	β^- :100.00	1	9.300E+03			ENSDF
1311	46-Pd-107M	5.5-	2.149E+05	21.3 s 2.35	IT:100.00	3	6.269E+04	1.518E+05		ENSDF
1312	46-Pd-108	0.0+								NUBASE
1313	46-Pd-109	2.5+		13.701 h ~	β^- :0.05; β^-_{m} :99.95	4	3.608E+05	6.445E+02		ENSDF
1314	46-Pd-109M	5.5-	1.889E+05	4.69 m ~	IT:100.00	3	7.622E+04	1.113E+05		ENSDF
1315	46-Pd-110	0.0+		6E+17 y ~	2 β^- :100.00	0	2.000E+06			ENSDF
1316	46-Pd-111	2.5+		23.4 m 0.01	β^- :0.70; β^-_{m} :99.30	4	8.319E+05	4.625E+04		ENSDF
1317	46-Pd-111M	5.5-	1.722E+05	5.5 h ~	IT:73.00; β^- :7.81; β^-_{m} :19.19	0	2.112E+05	3.369E+05		NUBASE
1318	46-Pd-112	0.0+		20.3 h ~	β^- :100.00	4	8.990E+04	5.248E+03		UKPADD64
1319	46-Pd-113	2.5+		1.55 m 0.09	β^- :4.24; β^-_{m} :95.76	4	1.365E+06	1.209E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1320	46-Pd-113M	4.5-	8.130E+04	0.3 s	33.33	IT:100.00	3	5.842E+04	2.136E+04		ENSDF
1321	46-Pd-114	0.0+		2.42 m	0.04	β^- :100.00	4	5.328E+05	2.589E+04		ENSDF
1322	46-Pd-115	2.5+		25 s	8	β^- :73.00; β^-_{m} :27.00	0	1.526E+06	1.526E+06		NUBASE
1323	46-Pd-115M	5.5-	8.918E+04	50 s	6	β^-_{m} :92.00; IT:8.00	0	1.422E+06	1.429E+06		NUBASE
1324	46-Pd-116	0.0+		11.8 s	3.39	β^- :100.00	4	1.003E+06	1.571E+05		ENSDF
1325	46-Pd-117	2.5+		4.3 s	6.98	β^- :50.00; β^-_{m} :50.00	0	1.909E+06	1.909E+06		NUBASE
1326	46-Pd-117M	5.5-	2.032E+05	0.019 s	3.66	IT:100.00	3	7.585E+04	1.302E+05		ENSDF
1327	46-Pd-118	0.0+		1.9 s	5.26	β^- :85.70; β^-_{m} :14.30	4	1.562E+06	4.159E+05		ENSDF
1328	46-Pd-119	?		0.92 s	14.13	β^- :50.00; β^-_{m} :50.00	0	2.310E+06	2.310E+06		NUBASE
1329	46-Pd-120	0.0+		0.5 s	20	β^- :50.00; β^-_{m} :50.00	0	1.800E+06	1.800E+06		NUBASE
1330	46-Pd-121	2.5+		0.6 s	16.67	β^- :99.73; β^-_{n} :0.27	3	2.335E+06	1.638E+06	7.481E+02	UKPADD64
1331	46-Pd-122	0.0+		0.3 s	100	β^- :100.00	0	2.180E+06	2.180E+06		NUBASE
1332	46-Pd-123	?		0.2 s	100	β^- :100.00	0	3.117E+06	3.117E+06		NUBASE
1333	46-Pd-124	0.0+		0.1 s	100	β^- :100.00	0	2.557E+06	2.557E+06		NUBASE
1334	47-Ag- 93	4.5+		5E-03 s	100	p:50.00; β^+ :50.00	0	2.153E+06	2.153E+06	7.155E+05	NUBASE
1335	47-Ag- 94	0.0+		0.037 s	48.65	β^+ :100.00	0	4.350E+06	4.350E+06		NUBASE
1336	47-Ag- 94M	7.0+	1.350E+06	0.422 s	3.79	β^+ :100.00	0	4.800E+06	4.800E+06		NUBASE
1337	47-Ag- 94N	21.0+	6.500E+06	0.3 s	66.67	β^+ :100.00	0	6.517E+06	6.517E+06		NUBASE
1338	47-Ag- 95	4.5+		1.74 s	7.47	β^+ :100.00	0	3.350E+06	3.350E+06		NUBASE
1339	47-Ag- 95M	0.5-	3.442E+05	0.5 s	100	IT:100.00	0		3.442E+05		NUBASE
1340	47-Ag- 95N	11.5+	2.531E+06	0.016 s	100	IT:100.00	0		2.531E+06		NUBASE
1341	47-Ag- 95O	18.5+	4.859E+06	0.04 s	100	IT _n :100.00	0		2.328E+06		NUBASE
1342	47-Ag- 96	?		4.45 s	0.90	β^+ :90.30; β^+ ,p:4.85; β^+ ,p _m :4.85	0	3.660E+06	3.660E+06	1.506E+05	NUBASE
1343	47-Ag- 96M	2.0+		6.9 s	8.70	β^+ :82.00; β^+ ,p:9.00; β^+ ,p _m :9.00	0	3.466E+06	3.466E+06	2.794E+05	NUBASE
1344	47-Ag- 97	4.5+		25.3 s	1.19	β^+ :100.00	1		3.138E+06		ENSDF
1345	47-Ag- 98	6.0+		47.5 s	0.63	β^+ :100.00	4	1.390E+06	4.616E+06		ENSDF
1346	47-Ag- 99	4.5+		2.067 m	0.04	β^+ :100.00	0	1.809E+06	1.809E+06		NUBASE
1347	47-Ag- 99M	0.5-	5.061E+05	10.5 s	4.76	IT:100.00	0		5.061E+05		NUBASE
1348	47-Ag-100	5.0+		2.01 m	0.07	β^+ :100.00	0	2.359E+06	2.359E+06		NUBASE
1349	47-Ag-100M	2.0+	1.552E+04	2.24 m	0.10	β^+ :50.00; IT:50.00	0	1.182E+06	1.190E+06		NUBASE
1350	47-Ag-101	4.5+		11.1 m	0.05	β^+ :100.00	4	8.322E+05	1.544E+06		ENSDF
1351	47-Ag-101M	0.5-	2.741E+05	3.1 s	3.23	IT:100.00	0		2.741E+05		NUBASE
1352	47-Ag-102	5.0+		12.9 m	0.04	β^+ :100.00	4	9.615E+05	2.981E+06		ENSDF
1353	47-Ag-102M	2.0+	9.300E+03	7.7 m	0.11	β^+ :51.00; IT:49.00	0	9.638E+05	9.684E+05		NUBASE
1354	47-Ag-103	3.5+		1.095 h	~	β^+ :100.00	4	1.860E+05	8.362E+05		ENSDF
1355	47-Ag-103M	0.5-	1.344E+05	5.7 s	5.26	IT:100.00	0		1.344E+05		NUBASE
1356	47-Ag-104	5.0+		1.153 h	~	β^+ :100.00	0	1.426E+06	1.426E+06		NUBASE
1357	47-Ag-104M	2.0+	6.900E+03	33.5 m	0.10	β^+ :99.93; IT:0.07	0	1.428E+06	1.428E+06		NUBASE
1358	47-Ag-105	0.5-		41.3 d	~	β^+ :100.00	4	1.993E+04	5.304E+05		UKPADD64
1359	47-Ag-105M	3.5+	2.546E+04	7.23 m	0.04	β^+ :0.34; IT:99.66	4	2.534E+04	1.221E+03		UKPADD64
1360	47-Ag-106	1.0+		24 m	0.01	β^- :0.50; β^+ :99.50	5	5.035E+05	7.060E+05		UKPADD64
1361	47-Ag-106M	6.0+	8.966E+04	8.46 d	~	β^+ :100.00	4	1.227E+04	2.754E+06		UKPADD64
1362	47-Ag-107	0.5-									NUBASE
1363	47-Ag-107M	3.5+	9.312E+04	44.3 s	0.45	IT:100.00	3	7.918E+04	1.273E+04		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1364	47-Ag-108	1.0+		2.4 m 0.01	β^- :97.10; β^+ :2.90	5	6.055E+05	2.283E+04		UKPADD64
1365	47-Ag-108M	6.0+	1.095E+05	418.01 y ~	β^+ :91.30; IT:8.70	4	1.604E+04	1.630E+06		UKPADD64
1366	47-Ag-109	0.5-								NUBASE
1367	47-Ag-109M	3.5+	8.803E+04	39.6 s 0.51	IT:100.00	3	7.575E+04	1.124E+04		ENSDF
1368	47-Ag-110	1.0+		24.56 s 0.45	β^+ :0.30; β^- :99.70	5	1.181E+06	3.134E+04		LNHB
1369	47-Ag-110M	6.0+	1.176E+05	249.78 d ~	IT:1.36; β^- :98.64	4	7.223E+04	2.762E+06		LNHB
1370	47-Ag-111	0.5-		7.45 d ~	β^- :100.00	4	3.509E+05	2.648E+04		ENSDF
1371	47-Ag-111M	3.5+	5.982E+04	1.08 m 0.02	β^- :0.50; IT:99.50	4	5.601E+04	6.878E+03		UKPADD64
1372	47-Ag-112	2.0-		3.13 h ~	β^- :100.00	0	1.319E+06	1.319E+06		NUBASE
1373	47-Ag-113	0.5-		5.37 h ~	β^- :98.27; β_m^- :1.73	4	7.613E+05	7.154E+04		ENSDF
1374	47-Ag-113M	3.5+	4.320E+04	1.145 m 0.12	IT:64.00; β^- :36.00	4	2.211E+05	2.123E+05		ENSDF
1375	47-Ag-114	1.0+		4.6 s 4.35	β^- :100.00	2	2.150E+06	2.581E+05		ENSDF
1376	47-Ag-114M	4.0+	1.990E+05	1.5E-03 s 3.33	IT:100.00	3	1.019E+05	9.712E+04		UKPADD64
1377	47-Ag-115	0.5-		20 m 0.04	β^- :94.24; β_m^- :5.76	4	1.082E+06	4.495E+05		ENSDF
1378	47-Ag-115M	3.5+	4.110E+04	18.6 s 4.30	β^- :76.70; β_m^- :2.30; IT:21.00	4	8.441E+05	4.550E+05		UKPADD64
1379	47-Ag-116	2.0-		2.68 m 0.06	β^- :100.00	2	1.751E+06	2.094E+06		ENSDF
1380	47-Ag-116M	5.0+	8.190E+04	8.6 s 3.49	β^- :94.00; IT:6.00	4	1.661E+06	1.688E+06		ENSDF
1381	47-Ag-117	0.5-		1.227 m 0.03	β^- :83.07; β_m^- :16.93	0	1.377E+06	1.377E+06		NUBASE
1382	47-Ag-117M	3.5+	2.860E+04	5.34 s 0.94	β^- :70.72; β_m^- :23.28; IT:6.00	0	1.300E+06	1.302E+06		NUBASE
1383	47-Ag-118	1.0-		3.76 s 3.99	β^- :100.00	0	2.380E+06	2.380E+06		NUBASE
1384	47-Ag-118M	4.0+	1.275E+05	2 s 10	β^- :59.00; IT:41.00	0	1.429E+06	1.481E+06		NUBASE
1385	47-Ag-119	0.5-		6 s 8.33	β^- :50.00; β_m^- :50.00	0	1.759E+06	1.759E+06		NUBASE
1386	47-Ag-119M	3.5+	2.000E+04	2.1 s 4.76	β^- :100.00	0	1.790E+06	1.790E+06		NUBASE
1387	47-Ag-120	3.0+		1.23 s 3.25	β^- :100.00; β^-,n :~; β^-,n_m :~	0	2.775E+06	2.775E+06	8.657E-01	NUBASE
1388	47-Ag-120M	6.0-	2.030E+05	0.371 s 6.47	β^- :63.00; IT:37.00	0	1.791E+06	1.866E+06		NUBASE
1389	47-Ag-121	3.5+		0.78 s 1.28	β^- :89.55; β_m^- :10.45	4	2.301E+06	1.167E+06		ENSDF
1390	47-Ag-122	3.0+		0.48 s 16.67	β^- :100.00	2	3.567E+06	1.081E+06		ENSDF
1391	47-Ag-122M	8.0-	8.000E+04	1.5 s 33.33	β^- :100.00	0	3.193E+06	3.193E+06		NUBASE
1392	47-Ag-123	3.5+		0.31 s 3.23	β^- :81.82; β_m^- :18.18	4	2.919E+06	8.440E+05		ENSDF
1393	47-Ag-124	3.0+		0.172 s 2.91	β^- :99.90; β^-,n :0.05; β^-,n_m :0.05	0	3.411E+06	3.411E+06	6.526E+02	NUBASE
1394	47-Ag-124M	8.0-		0.2 s 100	β^- :50.00; IT:50.00	0	1.707E+06	1.707E+06		NUBASE
1395	47-Ag-125	3.5+		0.166 s 4.22	β^- :50.00; β_m^- :50.00	0	2.845E+06	2.845E+06		NUBASE
1396	47-Ag-126	3.0+		0.107 s 11.21	β^- :100.00	0	3.773E+06	3.773E+06		NUBASE
1397	47-Ag-127	3.5+		0.079 s 3.80	β^- :100.00	0	3.207E+06	3.207E+06		NUBASE
1398	47-Ag-128	?		0.058 s 8.62	β^- :100.00	0	4.163E+06	4.163E+06		NUBASE
1399	47-Ag-129	3.5+		0.044 s 15.91	β^- :50.00; β_m^- :50.00	0	3.583E+06	3.583E+06		NUBASE
1400	47-Ag-130	?		0.05 s 100	β^- :100.00	0	5.137E+06	5.137E+06		NUBASE
1401	48-Cd- 95	4.5+		5E-03 s 100	β^+ :100.00	0	4.467E+06	4.467E+06		NUBASE
1402	48-Cd- 96	0.0+		1 s 100	β_m^+ :100.00	0	2.823E+06	2.823E+06		NUBASE
1403	48-Cd- 97	4.5+		2.8 s 21.43	β^+ :100.00	0	3.407E+06	3.407E+06		NUBASE
1404	48-Cd- 98	0.0+		9.2 s 3.26	β^+ :100.00	4	1.035E+06	2.464E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1405	48-Cd-99	2.5+		16 s 18.75	β^+ :49.90; β^+_{m} :49.90; β^+,p :0.21; β^+,n :~; β^+,n_m :~	0	2.217E+06	2.217E+06	2.186E+03	NUBASE
1406	48-Cd-100	0.0+		49.1 s 1.02	β^+ :100.00	4	4.492E+05	1.630E+06		ENSDF
1407	48-Cd-101	2.5+		1.36 m 0.06	β^+ :88.95; β^+_{m} :11.05	4	9.790E+05	2.449E+06		ENSDF
1408	48-Cd-102	0.0+		5.5 m 0.15	β^+ :5.77; β^+_{m} :94.23	4	7.264E+04	8.285E+05		ENSDF
1409	48-Cd-103	2.5+		7.3 m 0.02	β^+ :81.31; β^+_{m} :18.69	0	1.372E+06	1.372E+06		NUBASE
1410	48-Cd-104	0.0+		57.7 m 0.03	β^+_{m} :100.00	0	3.764E+05	3.764E+05		NUBASE
1411	48-Cd-105	2.5+		55.5 m 0.01	β^+ :17.79; β^+_{m} :82.21	0	9.057E+05	9.057E+05		NUBASE
1412	48-Cd-106	0.0+		6.6E+18 y ~	2 β^+ :100.00	0	2.770E+06			NUBASE
1413	48-Cd-107	2.5+		6.52 h ~	β^+ :0.06; β^+_{m} :99.94	4	6.274E+03	2.124E+04		UKPADD64
1414	48-Cd-108	0.0+		4.1E+17 y ~	2 β^+ :100.00	0	2.720E+05			NUBASE
1415	48-Cd-109	2.5+		1.267 y ~	β^+_{m} :100.00	3	5.712E+03	1.515E+04		UKPADD64
1416	48-Cd-110	0.0+								NUBASE
1417	48-Cd-111	0.5+								NUBASE
1418	48-Cd-111M	5.5-	3.962E+05	48.54 m ~	IT:100.00	3	1.054E+05	2.842E+05		ENSDF
1419	48-Cd-112	0.0+								NUBASE
1420	48-Cd-113	0.5+		7.7E+15 y ~	β^- :100.00	1	9.330E+04			ENSDF
1421	48-Cd-113M	5.5-	2.637E+05	14.1 y ~	IT:0.14; β^- :99.86	4	1.856E+05	7.070E+01		ENSDF
1422	48-Cd-114	0.0+		6E+17 y ~	2 β^- :100.00	0	5.360E+05			ENSDF
1423	48-Cd-115	0.5+		2.228 d ~	β^- :~; β^-_{m} :100.00	4	3.187E+05	1.925E+05		ENSDF
1424	48-Cd-115M	5.5-	1.810E+05	44.6 d ~	β^- :99.99; β^-_{m} :0.01	4	6.044E+05	3.292E+04		ENSDF
1425	48-Cd-116	0.0+		3.4E+19 y ~	2 β^- :100.00	0	2.804E+06			ENSDF
1426	48-Cd-117	0.5+		2.49 h ~	β^- :8.36; β^-_{m} :91.64	4	4.311E+05	1.078E+06		ENSDF
1427	48-Cd-117M	5.5-	1.364E+05	3.36 h ~	β^- :98.48; β^-_{m} :1.52	2	2.075E+05	2.034E+06		ENSDF
1428	48-Cd-118	0.0+		50.3 m 0.01	β^- :100.00	1	1.610E+05			ENSDF
1429	48-Cd-119	1.5+		2.69 m 0.01	β^- :9.72; β^-_{m} :90.28	4	8.107E+05	1.485E+06		ENSDF
1430	48-Cd-119M	5.5-	1.465E+05	2.2 m 0.02	β^- :99.78; β^-_{m} :0.22	4	7.000E+05	2.162E+06		ENSDF
1431	48-Cd-120	0.0+		50.8 s 0.41	β^- :100.00	1	7.080E+05			ENSDF
1432	48-Cd-121	1.5+		13.5 s 2.22	β^- :33.68; β^-_{m} :66.32	4	1.240E+06	1.725E+06		ENSDF
1433	48-Cd-121M	5.5-	2.149E+05	8.3 s 9.64	β^- :100.00	4	1.191E+06	2.124E+06		ENSDF
1434	48-Cd-122	0.0+		5.24 s 0.57	β^- :100.00	1	1.247E+06			ENSDF
1435	48-Cd-123	1.5+		2.1 s 0.95	β^- :30.97; β^-_{m} :69.03	4	1.729E+06	1.883E+06		ENSDF
1436	48-Cd-123M	5.5-	3.165E+05	1.82 s 1.65	β^- :98.78; β^-_{m} :1.22	4	1.609E+06	2.331E+06		ENSDF
1437	48-Cd-124	0.0+		1.25 s 1.60	β^- :100.00	0	1.390E+06	1.390E+06		NUBASE
1438	48-Cd-125	1.5+		0.65 s 3.08	β^- :47.86; β^-_{m} :52.14	2	2.217E+06	1.860E+06		ENSDF
1439	48-Cd-125M	5.5-	5.000E+04	0.48 s 6.25	β^- :100.00	2	2.088E+06	2.332E+06		ENSDF
1440	48-Cd-126	0.0+		0.515 s 3.30	β^- :100.00	0	1.827E+06	1.827E+06		NUBASE
1441	48-Cd-127	1.5+		0.37 s 18.92	β^-_{m} :100.00	0	2.670E+06	2.670E+06		NUBASE
1442	48-Cd-128	0.0+		0.28 s 14.29	β^-_{m} :100.00	0	2.274E+06	2.274E+06		NUBASE
1443	48-Cd-129	1.5+		0.242 s 3.31	β^-_{m} :100.00	0	3.120E+06	3.120E+06		NUBASE
1444	48-Cd-129M	5.5-		0.104 s 5.77	β^- :100.00	0	3.247E+06	3.247E+06		NUBASE
1445	48-Cd-130	0.0+		0.162 s 4.32	β^- :96.50; $\beta^-_{,n}$:1.75; $\beta^-_{,n_m}$:1.75	0	2.703E+06	2.703E+06	2.720E+04	NUBASE
1446	48-Cd-131	3.5-		0.068 s 4.41	β^- :96.50; $\beta^-_{,n}$:3.50	0	4.196E+06	4.196E+06	5.730E+04	NUBASE
1447	48-Cd-132	0.0+		0.097 s 10.31	β^- :40.00; $\beta^-_{,n_m}$:60.00	0	2.909E+06	2.909E+06	1.349E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1448	49-In- 97	4.5+		5E-03 s 100	p:50.00; β +:50.00	0	2.267E+06	2.267E+06	9.055E+05	NUBASE
1449	49-In- 98	0.0+		0.045 s 51.11	β +:100.00	0	4.577E+06	4.577E+06		NUBASE
1450	49-In- 98M	?		1.7 s 47.06	β +:100.00	0	4.577E+06	4.577E+06		NUBASE
1451	49-In- 99	4.5+		3.1 s 25.81	β +:100.00	0	2.860E+06	2.860E+06		NUBASE
1452	49-In- 99M	0.5-	4.000E+05	1 s 100	β +:50.00; IT:50.00	0	1.497E+06	1.697E+06		NUBASE
1453	49-In-100	6.0+		5.9 s 3.39	β +:96.10; β +,p:1.95; β +,p _m :1.95	0	3.278E+06	3.278E+06	4.922E+04	NUBASE
1454	49-In-101	4.5+		15.1 s 7.28	β +:100.00	0	2.380E+06	2.380E+06		NUBASE
1455	49-In-101M	0.5-	5.500E+05	10 s 100	β +:95.00; IT:5.00	0	2.435E+06	2.463E+06		NUBASE
1456	49-In-102	6.0+		22 s 4.55	β +:100.00	4	2.719E+06	3.258E+06		ENSDF
1457	49-In-103	4.5+		1 m 0.03	β +:100.00	0	2.017E+06	2.017E+06		NUBASE
1458	49-In-103M	0.5-	6.317E+05	34 s 5.88	β +:67.00; IT:33.00	0	1.492E+06	1.701E+06		NUBASE
1459	49-In-104	?		1.8 m 0.03	β +:100.00	0	2.622E+06	2.622E+06		NUBASE
1460	49-In-104M	3.0+	9.348E+04	15.7 s 3.18	IT:80.00; β +:20.00	0	5.306E+05	6.054E+05		NUBASE
1461	49-In-105	4.5+		5.07 m 0.02	β +:100.00	4	9.830E+05	1.814E+06		ENSDF
1462	49-In-105M	0.5-	6.741E+05	48 s 12.50	IT:100.00	3	3.131E+04	6.360E+05		ENSDF
1463	49-In-106	7.0+		6.2 m 0.03	β +:100.00	0	2.175E+06	2.175E+06		NUBASE
1464	49-In-106M	3.0+	2.860E+04	5.2 m 0.03	β +:100.00	0	2.185E+06	2.185E+06		NUBASE
1465	49-In-107	4.5+		32.4 m 0.02	β +:100.00	4	3.470E+05	1.498E+06		ENSDF
1466	49-In-107M	0.5-	6.785E+05	50.4 s 1.19	IT:100.00	3	3.732E+04	6.407E+05		ENSDF
1467	49-In-108	7.0+		58 m 0.03	β +:100.00	0	1.712E+06	1.712E+06		NUBASE
1468	49-In-108M	2.0+	2.975E+04	39.6 m 0.03	β +:100.00	0	1.722E+06	1.722E+06		NUBASE
1469	49-In-109	4.5+		4.2 h ~	β +:100.00	4	3.131E+04	6.335E+05		ENSDF
1470	49-In-109M	0.5-	6.501E+05	1.34 m 0.09	IT:100.00	3	3.666E+04	6.103E+05		ENSDF
1471	49-In-109N	9.5+	2.101E+06	0.209 s 2.87	IT:100.00	3	1.703E+04	2.085E+06		ENSDF
1472	49-In-110	7.0+		4.9 h ~	β +:100.00	0	1.293E+06	1.293E+06		NUBASE
1473	49-In-110M	2.0+	6.210E+04	1.152 h ~	β +:100.00	4	6.526E+05	1.572E+06		ENSDF
1474	49-In-111	4.5+		2.805 d ~	β +:100.00; β +:0.01	4	3.251E+04	4.059E+05		LNHB
1475	49-In-111M	0.5-	5.372E+05	7.9 m 0.08	IT:100.00	3	6.784E+04	4.696E+05		UKPADD64
1476	49-In-112	1.0+		14.7 m 0.08	β -:44.00; β +:56.00	5	2.452E+05	2.902E+05		UKPADD64
1477	49-In-112M	4.0+	1.566E+05	20.7 m 0.01	IT:100.00	3	1.222E+05	3.456E+04		UKPADD64
1478	49-In-113	4.5+								NUBASE
1479	49-In-113M	0.5-	3.917E+05	1.658 h ~	IT:100.00	3	1.309E+05	2.605E+05		LNHB
1480	49-In-114	1.0+		1.198 m ~	β -:99.50; β +:0.50	5	7.692E+05	4.370E+03		UKPADD64
1481	49-In-114M	5.0+	1.903E+05	50 d ~	β +:3.50; IT:96.50	4	1.409E+05	8.899E+04		UKPADD64
1482	49-In-114N	8.0-	5.020E+05	0.043 s 2.33	IT _m :100.00	3	3.396E+04	2.777E+05		UKPADD64
1483	49-In-115	4.5+		4.41E+14 y ~	β -:100.00	1	1.520E+05			ENSDF
1484	49-In-115M	0.5-	3.362E+05	4.486 h ~	β -:5.00; IT:95.00	4	1.734E+05	1.626E+05		ENSDF
1485	49-In-116	1.0+		14.2 s 2.11	β -:100.00	4	1.357E+06	5.265E+03		UKPADD64
1486	49-In-116M	5.0+	1.273E+05	54.6 m 0.01	β -:100.00	4	3.126E+05	2.491E+06		UKPADD64
1487	49-In-116N	8.0-	2.897E+05	2.17 s 2.30	IT _m :100.00	3	9.412E+04	6.817E+04		UKPADD64
1488	49-In-117	4.5+		43.2 m 0.03	β -:99.66; β -:0.34	4	2.641E+05	6.942E+05		ENSDF
1489	49-In-117M	0.5-	3.153E+05	1.937 h ~	IT:47.10; β -:52.90	4	4.336E+05	9.093E+04		ENSDF
1490	49-In-118	1.0+		5 s 6	β -:100.00	4	1.879E+06	7.782E+04		ENSDF
1491	49-In-118M	5.0+	1.000E+05	4.45 m 0.02	β -:100.00	4	6.065E+05	2.766E+06		ENSDF
1492	49-In-118N	8.0-	2.400E+05	8.5 s 3.53	IT _m :98.60; β -:1.40	0	2.178E+04	1.598E+05		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1493	49-In-119	4.5+		2.4 m	0.07	β^- :9.66; β^-_{m} :90.34	0	7.612E+05	7.612E+05		NUBASE
1494	49-In-119M	0.5-	3.114E+05	18 m	0.03	β^- :94.40; IT:5.60	0	8.420E+05	8.594E+05		NUBASE
1495	49-In-120	1.0+		3.08 s	2.60	β^- :100.00	2	2.210E+06	2.566E+05		ENSDF
1496	49-In-120M	?		46.2 s	1.73	β^- :100.00	2	1.310E+06	2.838E+06		ENSDF
1497	49-In-120N	8.0-	3.000E+05	47.3 s	1.06	β^- :100.00	0	1.888E+06	1.888E+06		NUBASE
1498	49-In-121	4.5+		23.1 s	2.60	β^- :88.67; β^-_{m} :11.33	4	9.847E+05	9.229E+05		ENSDF
1499	49-In-121M	0.5-	3.136E+05	3.88 m	1.67	IT:1.20; β^- :98.80	4	1.516E+06	6.402E+04		ENSDF
1500	49-In-122	1.0+		1.5 s	20	β^- :100.00	2	2.535E+06	6.311E+05		ENSDF
1501	49-In-122M	8.0-	2.000E+05	10.8 s	3.70	β^- :100.00	4	1.363E+06	3.460E+06		ENSDF
1502	49-In-122N	8.0-	2.000E+05	10.8 s	3.70	β^- :100.00	4	1.363E+06	3.460E+06		ENSDF
1503	49-In-123	4.5+		5.98 s	1	β^- :7.62; β^-_{m} :92.38	4	1.406E+06	1.046E+06		ENSDF
1504	49-In-123M	0.5-	3.272E+05	47.8 s	1.05	β^- :~; β^-_{m} :100.00	4	2.032E+06	6.250E+04		ENSDF
1505	49-In-124	3.0+		3.11 s	3.22	β^- :100.00	4	2.052E+06	2.650E+06		ENSDF
1506	49-In-124M	8.0-	5.000E+04	3.7 s	5.41	β^- :100.00	4	1.623E+06	3.531E+06		ENSDF
1507	49-In-125	4.5+		2.36 s	1.69	β^- :16.89; β^-_{m} :83.11	4	1.810E+06	1.202E+06		ENSDF
1508	49-In-125M	0.5-	3.601E+05	12.2 s	1.64	β^-_{m} :100.00	0	1.917E+06	1.917E+06		NUBASE
1509	49-In-126	3.0+		1.6 s	6.25	β^- :100.00	2	2.399E+06	2.764E+06		ENSDF
1510	49-In-126M	8.0-	1.000E+05	1.64 s	3.05	β^- :100.00	0	2.770E+06	2.770E+06		NUBASE
1511	49-In-127	4.5+		1.09 s	0.92	β^- :38.98; β^-_{m} :61.02	4	2.418E+06	1.136E+06		ENSDF
1512	49-In-127M	0.5-	4.600E+05	3.67 s	1.09	β^-_{m} :99.31; β^- ,n:0.69	0	2.308E+06	2.308E+06	2.447E+03	NUBASE
1513	49-In-128	3.0+		0.84 s	7.14	β^- :100.00	2	2.643E+06	3.017E+06		ENSDF
1514	49-In-128M	1.0-	2.479E+05	0.01 s	70	IT:100.00	0		2.479E+05		NUBASE
1515	49-In-128N	8.0-	3.200E+05	0.72 s	13.89	β^-_{m} :100.00	0	2.401E+06	2.401E+06		NUBASE
1516	49-In-129	4.5+		0.61 s	1.64	β^- :89.35; β^-_{m} :10.65	4	2.506E+06	1.975E+06		ENSDF
1517	49-In-129M	0.5-	3.800E+05	1.23 s	2.44	β^- :99.70	4	3.469E+06	3.584E+05		ENSDF
1518	49-In-130	1.0-		0.29 s	6.90	β^- :71.06; β^-_{m} :28.94	4	2.951E+06	3.427E+06		ENSDF
1519	49-In-130M	10.0-	5.000E+04	0.54 s	1.85	β^- :~; β^-_{m} :100.00	4	2.825E+06	1.995E+06		ENSDF
1520	49-In-130N	5.0+	4.000E+05	0.54 s	1.85	β^- :100.00	4	3.332E+06	2.991E+06		ENSDF
1521	49-In-131	4.5+		0.28 s	10.71	β^- :94.69; β^-_{m} :5.31	2	2.987E+06	2.413E+06		ENSDF
1522	49-In-131M	0.5-	3.500E+05	0.35 s	14.29	β^- :97.98; β^- ,n:1.00; β^- ,n _m :1.00; IT:0.02	0	3.128E+06	3.128E+06	1.654E+04	NUBASE
1523	49-In-131N	?	4.100E+06	0.32 s	18.75	β^-_{m} :98.97; β^- ,n:0.01; β^- ,n _m :0.01; IT:1.00	0	4.354E+06	4.395E+06	4.940E+02	NUBASE
1524	49-In-132	7.0-		0.201 s	6.47	β^- :100.00	4	3.478E+06	5.704E+06		ENSDF
1525	49-In-133	4.5+		0.165 s	1.82	β^- :15.00; β^- ,n:85.00	0	2.893E+06	2.893E+06	2.242E+06	NUBASE
1526	49-In-133M	0.5-	3.300E+05	0.18 s	55.56	IT:100.00	0		3.300E+05		NUBASE
1527	49-In-134	?		0.14 s	2.86	β^- :31.00; β^- ,n:65.00; β^- ,2n:4.00	0	3.376E+06	3.376E+06	1.848E+06	NUBASE
1528	49-In-135	4.5+		0.092 s	10.87	β^- :100.00	0	4.533E+06	4.533E+06		NUBASE
1529	50-Sn-99	4.5+		5E-03 s	100	β^+ :100.00	0	4.690E+06	4.690E+06		NUBASE
1530	50-Sn-100	0.0+		1.1 s	36.36	β^+ :83.00; β^+ ,p:17.00	0	2.290E+06	2.290E+06	2.457E+05	NUBASE
1531	50-Sn-101	2.5+		3 s	33.33	β^+ :50.00; β^+ _m :50.00	0	2.925E+06	2.925E+06		NUBASE
1532	50-Sn-102	0.0+		4.6 s	30.43	β^+ :100.00	0	1.927E+06	1.927E+06		NUBASE
1533	50-Sn-103	2.5+		7 s	42.86	β^+ :50.00; β^+ _m :50.00	0	2.438E+06	2.438E+06		NUBASE
1534	50-Sn-104	0.0+		20.8 s	2.40	β^+ :9.32; β^+ _m :90.68	4	7.262E+05	1.884E+06		ENSDF
1535	50-Sn-105	2.5+		34 s	2.94	β^+ :50.00; β^+ _m :50.00	0	1.961E+06	1.961E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1536	50-Sn-106	0.0+		1.917 m 0.07	$\beta^+:\sim; \beta^+_{m}:100.00$	4	1.096E+05	1.200E+06		ENSDF
1537	50-Sn-107	2.5+		2.9 m 0.03	$\beta^+:50.00; \beta^+_{m}:50.00$	0	1.547E+06	1.547E+06		NUBASE
1538	50-Sn-108	0.0+		10.3 m 0.01	$\beta^+:\sim; \beta^+_{m}:100.00$	4	3.070E+04	6.716E+05		ENSDF
1539	50-Sn-109	2.5+		18 m 0.02	$\beta^+:69.15; \beta^+_{m}:30.85$	0	1.216E+06	1.216E+06		NUBASE
1540	50-Sn-110	0.0+		4.1 h ~	$\beta^+_{m}:100.00$	4	1.417E+04	2.904E+05		UKPADD64
1541	50-Sn-111	3.5+		35.3 m 0.03	$\beta^+:99.80; \beta^+_{m}:0.20$	0	8.166E+05	8.166E+05		NUBASE
1542	50-Sn-112	0.0+								NUBASE
1543	50-Sn-113	0.5+		115.09 d ~	$\beta^+:0.01; \beta^+_{m}:99.99$	4	6.272E+03	2.325E+04		UKPADD64
1544	50-Sn-113M	3.5+	7.739E+04	20.9 m 0.04	$\beta^+:8.90; IT:91.10$	4	5.858E+04	1.448E+04		UKPADD64
1545	50-Sn-114	0.0+								NUBASE
1546	50-Sn-115	0.5+								NUBASE
1547	50-Sn-116	0.0+								NUBASE
1548	50-Sn-117	0.5+								NUBASE
1549	50-Sn-117M	5.5-	3.146E+05	13.6 d ~	IT:100.00	3	1.557E+05	1.575E+05		ENSDF
1550	50-Sn-118	0.0+								NUBASE
1551	50-Sn-119	0.5+								NUBASE
1552	50-Sn-119M	5.5-	8.953E+04	293 d ~	IT:100.00	3	7.826E+04	1.136E+04		UKPADD64
1553	50-Sn-120	0.0+								NUBASE
1554	50-Sn-121	1.5+		1.127 d ~	$\beta^-:100.00$	1	1.152E+05			ENSDF
1555	50-Sn-121M	5.5-	6.300E+03	55.001 y ~	$\beta^-:22.40; IT:77.60$	4	3.533E+04	5.096E+03		UKPADD64
1556	50-Sn-122	0.0+								NUBASE
1557	50-Sn-123	5.5-		129.2 d ~	$\beta^-:100.00$	4	5.228E+05	6.892E+03		ENSDF
1558	50-Sn-123M	1.5+	2.460E+04	40.06 m ~	$\beta^-:100.00$	4	4.785E+05	1.407E+05		ENSDF
1559	50-Sn-124	0.0+		1E+17 y ~	$2\beta^-:100.00$	0	2.288E+06			ENSDF
1560	50-Sn-125	5.5-		9.64 d ~	$\beta^-:100.00$	4	8.034E+05	3.336E+05		ENSDF
1561	50-Sn-125M	1.5+	2.750E+04	9.52 m 0.01	$\beta^-:100.00$	4	8.063E+05	3.460E+05		ENSDF
1562	50-Sn-126	0.0+		2.3E+05 y ~	$\beta^-:\sim; \beta^-_{m}:33.07; \beta^-_{n}:66.93$	4	1.221E+05	5.665E+04		ENSDF
1563	50-Sn-127	5.5-		2.1 h ~	$\beta^-:100.00$	0	1.067E+06	1.067E+06		NUBASE
1564	50-Sn-127M	1.5+	4.700E+03	4.13 m 0.01	$\beta^-:100.00$	0	1.069E+06	1.069E+06		NUBASE
1565	50-Sn-128	0.0+		59.1 m 0.01	$\beta^-:100.00; \beta^-_{m}:\sim$	4	2.503E+05	6.034E+05		ENSDF
1566	50-Sn-128M	7.0-	2.092E+06	6.5 s 7.69	IT:100.00	3	7.860E+04	2.012E+06		ENSDF
1567	50-Sn-129	1.5+		2.23 m 0.03	$\beta^-:100.00$	0	1.345E+06	1.345E+06		NUBASE
1568	50-Sn-129M	5.5-	3.520E+04	6.9 m 0.02	$\beta^-:50.00; \beta^-_{m}:50.00; IT:\sim$	0	1.048E+06	1.048E+06		NUBASE
1569	50-Sn-130	0.0+		3.72 m 0.02	$\beta^-:100.00$	4	4.667E+05	9.273E+05		ENSDF
1570	50-Sn-130M	7.0-	1.947E+06	1.7 m 0.10	$\beta^-:50.00; \beta^-_{m}:50.00$	0	1.366E+06	1.366E+06		NUBASE
1571	50-Sn-131	1.5+		56 s 0.89	$\beta^-:100.00$	0	1.558E+06	1.558E+06		NUBASE
1572	50-Sn-131M	5.5-	8.000E+04	58.4 s 0.86	$\beta^-:100.00; IT:\sim$	0	1.585E+06	1.585E+06		NUBASE
1573	50-Sn-132	0.0+		39.7 s 1.26	$\beta^-:100.00; \beta^-_{m}:\sim$	4	6.987E+05	1.301E+06		ENSDF
1574	50-Sn-133	3.5-		1.45 s 2.07	$\beta^-:100.00$	2	3.396E+06	2.725E+05		ENSDF
1575	50-Sn-134	0.0+		1.05 s 1.05	$\beta^-:83.00; \beta^-_{,n}:17.00$	0	2.212E+06	2.212E+06	1.730E+05	NUBASE
1576	50-Sn-135	3.5-		0.53 s 3.77	$\beta^-:79.00; \beta^-_{,n}:10.50; \beta^-_{,n_m}:10.50$	0	2.622E+06	2.622E+06	2.761E+05	NUBASE
1577	50-Sn-136	0.0+		0.25 s 12	$\beta^-:70.00; \beta^-_{,n}:30.00$	0	2.341E+06	2.341E+06	3.854E+05	NUBASE
1578	50-Sn-137	2.5-		0.19 s 31.58	$\beta^-:42.00; \beta^-_{,n}:58.00$	0	2.335E+06	2.335E+06	9.423E+05	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1579	51-Sb-103	2.5+		0.1 s 100	β^+ :100.00	0	3.597E+06	3.597E+06		NUBASE
1580	51-Sb-104	?		0.47 s 27.66	β^+ :39.50; β^+ ,p:3.50; β^+ ,p _m :3.50; p:7.00; α :46.50	0	1.771E+06	1.771E+06	1.365E+06	NUBASE
1581	51-Sb-105	2.5+		1.12 s 14.29	β^+ :99.00; p:1.00	0	3.115E+06	3.115E+06	4.810E+03	NUBASE
1582	51-Sb-106	4.0+		0.6 s 33.33	β^+ :100.00	0	3.700E+06	3.700E+06		NUBASE
1583	51-Sb-107	2.5+		4.6 s 17.39	β^+ :100.00	0	2.643E+06	2.643E+06		NUBASE
1584	51-Sb-108	4.0+		7.4 s 4.05	β^+ :100.00	0	3.177E+06	3.177E+06		NUBASE
1585	51-Sb-109	2.5+		16.67 s 0.90	β^+ :100.00	4	1.950E+06	1.894E+06		ENSDF
1586	51-Sb-110	?		23 s 1.74	β^+ :100.00	4	1.961E+06	3.692E+06		ENSDF
1587	51-Sb-111	2.5+		1.25 m 0.02	β^+ :100.00	4	1.352E+06	1.475E+06		ENSDF
1588	51-Sb-112	3.0+		51.4 s 1.95	β^+ :100.00	4	1.754E+06	2.755E+06		ENSDF
1589	51-Sb-113	2.5+		6.67 m 0.02	β^+ :80.20; β^+ _m :19.80	0	1.299E+06	1.299E+06		NUBASE
1590	51-Sb-114	3.0+		3.49 m 0.01	β^+ :100.00	4	1.152E+06	2.632E+06		ENSDF
1591	51-Sb-115	2.5+		32.1 m 0.02	β^+ :100.00	4	2.333E+05	8.875E+05		ENSDF
1592	51-Sb-116	3.0+		15.8 m 0.08	β^+ :100.00	4	5.217E+05	2.287E+06		ENSDF
1593	51-Sb-116M	8.0-	3.830E+05	1.005 h ~	β^+ :100.00	4	2.142E+05	3.187E+06		ENSDF
1594	51-Sb-117	2.5+		2.8 h ~	β^+ :100.00	4	2.813E+04	1.848E+05		ENSDF
1595	51-Sb-118	1.0+		3.6 m 0.05	β^+ :100.00	4	8.731E+05	8.041E+05		ENSDF
1596	51-Sb-118M	8.0-	2.500E+05	5 h ~	β^+ :100.00	4	3.519E+04	2.599E+06		ENSDF
1597	51-Sb-119	2.5+		1.596 d ~	β^+ :100.00	4	2.597E+04	2.342E+04		UKPADD64
1598	51-Sb-119M	13.5+	2.852E+06	0.85 s 10.59	IT:100.00	0		2.852E+06		NUBASE
1599	51-Sb-120	1.0+		15.9 m 0.01	β^+ :100.00	4	3.068E+05	4.600E+05		UKPADD64
1600	51-Sb-120M	8.0-	2.000E+05	5.76 d ~	β^+ :100.00	4	4.505E+04	2.462E+06		UKPADD64
1601	51-Sb-121	2.5+								NUBASE
1602	51-Sb-122	2.0-		2.7 d ~	β^+ :2.60; β^- :97.40	5	5.626E+05	4.429E+05		LNHB
1603	51-Sb-122M	8.0-	1.636E+05	4.19 m 0.04	IT:100.00	3	9.306E+04	7.053E+04		UKPADD64
1604	51-Sb-123	3.5+								NUBASE
1605	51-Sb-124	3.0-		60.2 d ~	β^- :100.00	4	3.921E+05	1.840E+06		LNHB
1606	51-Sb-124M	5.0+	1.086E+04	1.55 m 0.09	β^- :25.00; IT:75.00	4	1.141E+05	4.375E+05		UKPADD64
1607	51-Sb-124N	8.0-	3.685E+04	20.2 m 0.02	IT _m :100.00	3	2.577E+04	3.380E+02		UKPADD64
1608	51-Sb-125	3.5+		2.759 y ~	β^- :77.62; β^- _m :22.38	4	1.002E+05	4.370E+05		ENSDF
1609	51-Sb-126	8.0-		12.4 d ~	β^- :100.00	4	3.367E+05	2.777E+06		LNHB
1610	51-Sb-126M	5.0+	1.770E+04	19.1 m 0.02	IT:14.00; β^- :86.00	4	6.248E+05	1.576E+06		UKPADD64
1611	51-Sb-126N	3.0-	4.040E+04	11 s 18.18	IT _m :100.00	3	2.244E+04	3.785E+02		UKPADD64
1612	51-Sb-127	3.5+		3.85 d ~	β^- :83.52; β^- _m :16.48	4	3.129E+05	6.921E+05		ENSDF
1613	51-Sb-128	8.0-		9.01 h ~	β^- :100.00	4	4.864E+05	3.048E+06		ENSDF
1614	51-Sb-128M	5.0+	1.000E+04	10.4 m 0.03	β^- :96.40; IT:3.60	2	9.448E+05	1.882E+06		ENSDF
1615	51-Sb-129	3.5+		4.36 h ~	β^- :83.40; β^- _m :16.60	4	3.548E+05	1.380E+06		UKPADD64
1616	51-Sb-129M	9.5-	1.851E+06	17.7 m 0.01	β^- :2.00; β^- _m :83.00; IT:15.00	4	9.989E+05	1.478E+06		UKPADD64
1617	51-Sb-130	8.0-		39.5 m 0.03	β^- :100.00	4	7.139E+05	3.126E+06		ENSDF
1618	51-Sb-130M	?	4.800E+03	6.3 m 0.05	β^- :100.00	0	1.688E+06	1.688E+06		NUBASE
1619	51-Sb-131	3.5+		23.03 m ~	β^- :91.99; β^- _m :8.01	4	5.762E+05	1.736E+06		ENSDF
1620	51-Sb-132	4.0+		2.79 m 0.03	β^- :100.00	4	1.255E+06	2.496E+06		ENSDF
1621	51-Sb-132M	8.0-	2.000E+05	4.1 m 0.03	β^- :100.00	4	1.276E+06	2.408E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1622	51-Sb-133	3.5+		2.5 m	0.07	β^- :82.71; β^-_{m} :17.29	2	6.571E+05	2.184E+06		ENSDF
1623	51-Sb-134	0.0-		0.78 s	7.69	β^- :100.00	4	3.743E+06	6.465E+04		ENSDF
1624	51-Sb-134M	7.0-	8.000E+04	10.07 s	0.50	β^- :99.91; $\beta^-_{,n}$:0.05; $\beta^-_{,n_m}$:0.05	0	2.821E+06	2.821E+06	1.403E+02	NUBASE
1625	51-Sb-135	3.5+		1.74 s	1.72	β^- :84.30; $\beta^-_{,n}$:15.70	5	2.967E+06	6.881E+05	1.771E+05	UKPADD64
1626	51-Sb-136	1.0-		0.923 s	1.52	β^- :83.42; $\beta^-_{,n}$:16.30; $\beta^-_{,2n}$:0.28	0	2.855E+06	2.855E+06	1.999E+05	NUBASE
1627	51-Sb-137	3.5+		0.45 s	11.11	β^- :51.00; $\beta^-_{,n}$:49.00	0	2.328E+06	2.328E+06	7.471E+05	NUBASE
1628	51-Sb-138	2.0-		0.5 s	100	β^- :100.00	0	3.593E+06	3.593E+06		NUBASE
1629	51-Sb-139	3.5+		0.3 s	100	β^- :100.00	0	3.493E+06	3.493E+06		NUBASE
1630	52-Te-105	2.5+		1E-06 s	100	α :50.00; β^+ :50.00	0	1.887E+06	1.887E+06	2.318E+06	NUBASE
1631	52-Te-106	0.0+		6E-05 s	50	α :100.00	1			4.290E+06	ENSDF
1632	52-Te-107	2.5+		3.1E-03 s	3.23	α :70.00; β^+ :30.00	0	1.011E+06	1.011E+06	2.804E+06	NUBASE
1633	52-Te-108	0.0+		2.1 s	4.76	β^+ :48.54; α :49.00; $\beta^+_{,p}$:2.40; $\beta^+_{,n}$:0.03; $\beta^+_{,n_m}$:0.03	0	1.133E+06	1.133E+06	1.723E+06	NUBASE
1634	52-Te-109	2.5+		4.6 s	6.52	β^+ :86.69; α :3.90; $\beta^+_{,p}$:9.40; $\beta^+_{,n}$:~; $\beta^+_{,n_m}$:~	0	2.667E+06	2.667E+06	2.937E+05	NUBASE
1635	52-Te-110	0.0+		18.6 s	4.30	β^+ :100.00; α :~	0	1.753E+06	1.753E+06	8.175E+01	NUBASE
1636	52-Te-111	2.5+		19.3 s	2.07	β^+ :100.00	0	2.469E+06	2.469E+06		NUBASE
1637	52-Te-112	0.0+		2 m	0.17	β^+ :100.00	0	1.434E+06	1.434E+06		NUBASE
1638	52-Te-113	3.5+		1.7 m	0.20	β^+ :100.00	4	1.683E+06	1.888E+06		ENSDF
1639	52-Te-114	0.0+		15.2 m	0.08	β^+ :100.00	4	1.789E+05	1.086E+06		ENSDF
1640	52-Te-115	3.5+		5.8 m	0.06	β^+ :100.00	4	6.395E+05	2.019E+06		ENSDF
1641	52-Te-115M	0.5+	2.000E+04	6.7 m	0.10	β^+ :100.00	4	5.029E+05	2.088E+06		ENSDF
1642	52-Te-116	0.0+		2.49 h	~	β^+ :100.00	4	5.823E+04	1.128E+05		ENSDF
1643	52-Te-117	0.5+		1.033 h	~	β^+ :100.00	4	2.114E+05	1.540E+06		ENSDF
1644	52-Te-117M	5.5-	2.961E+05	0.103 s	2.91	IT:100.00	3	3.421E+04	2.650E+05		ENSDF
1645	52-Te-118	0.0+		6 d	~	β^+ :100.00	3	4.964E+03	1.988E+04		ENSDF
1646	52-Te-119	0.5+		16.05 h	~	β^+ :100.00	4	1.304E+04	7.669E+05		ENSDF
1647	52-Te-119M	5.5-	2.610E+05	4.7 d	~	β^+ :100.00	4	1.654E+04	1.498E+06		ENSDF
1648	52-Te-120	0.0+									NUBASE
1649	52-Te-121	0.5+		19.16 d	~	β^+ :100.00	4	9.840E+03	5.775E+05		UKPADD64
1650	52-Te-121M	5.5-	2.940E+05	154 d	~	β^+ :11.30; IT:88.70	4	8.009E+04	2.169E+05		UKPADD64
1651	52-Te-122	0.0+									NUBASE
1652	52-Te-123	0.5+		9.2E+16 y	~	β^+ :100.00	3	2.002E+03	2.595E+02		ENSDF
1653	52-Te-123M	5.5-	2.474E+05	119.5 d	~	IT:100.00	3	9.604E+04	1.477E+05		LNHB
1654	52-Te-124	0.0+									NUBASE
1655	52-Te-125	0.5+									NUBASE
1656	52-Te-125M	5.5-	1.448E+05	57.4 d	~	IT:100.00	3	1.053E+05	3.513E+04		LNHB
1657	52-Te-126	0.0+									NUBASE
1658	52-Te-127	1.5+		9.35 h	~	β^- :100.00	4	2.244E+05	4.847E+03		UKPADD64
1659	52-Te-127M	5.5-	8.826E+04	109 d	~	IT:97.60; β^- :2.40	4	8.214E+04	1.158E+04		UKPADD64
1660	52-Te-128	0.0+		2.2E+24 y	~	$2\beta^-$:100.00	0	8.672E+05			ENSDF
1661	52-Te-129	1.5+		1.16 h	~	β^- :100.00	4	5.428E+05	6.237E+04		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1662	52-Te-129M	5.5-	1.055E+05	33.6 d ~	β^- :37.00; IT:63.00	4	2.630E+05	3.766E+04		ENSDF
1663	52-Te-130	0.0+		7.9E+23 y ~	$2\beta^-$:100.00	0	2.528E+06			ENSDF
1664	52-Te-131	1.5+		25 m 0.01	β^- :100.00	4	7.369E+05	4.457E+05		LNHB
1665	52-Te-131M	5.5-	1.823E+05	1.25 d ~	IT:21.00; β^- :79.00	4	1.932E+05	1.456E+06		LNHB
1666	52-Te-132	0.0+		3.204 d ~	β^- :100.00	4	1.014E+05	2.340E+05		ENSDF
1667	52-Te-133	1.5+		12.45 m 0.04	β^- :100.00	4	6.780E+05	1.182E+06		LNHB
1668	52-Te-133M	5.5-	3.343E+05	55.4 m 0.01	β^- :82.50; IT:17.50	4	3.761E+05	1.823E+06		ENSDF
1669	52-Te-134	0.0+		41.8 m 0.03	β^- :100.00	4	2.248E+05	8.773E+05		LNHB
1670	52-Te-135	3.5-		19 s 1.05	β^- :100.00	2	2.442E+06	3.844E+05		ENSDF
1671	52-Te-136	0.0+		17.5 s 1.14	β^- :100.00	4	1.311E+06	1.987E+06		ENSDF
1672	52-Te-137	1.5-		2.49 s 2.01	β^- :97.01; β^- ,n:1.49; β^- ,n _m :1.49	0	2.257E+06	2.257E+06	1.154E+04	NUBASE
1673	52-Te-138	0.0+		1.4 s 28.57	β^- :93.70; β^- ,n:6.30	0	2.038E+06	2.038E+06	3.940E+04	NUBASE
1674	52-Te-139	2.5-		0.5 s 100	β^- :100.00	0	2.680E+06	2.680E+06		NUBASE
1675	52-Te-140	0.0+		0.3 s 100	β^- :100.00	0	2.437E+06	2.437E+06		NUBASE
1676	52-Te-141	2.5-		0.1 s 100	β^- :100.00	0	2.987E+06	2.987E+06		NUBASE
1677	52-Te-142	0.0+		0.05 s 100	β^- :100.00	0	2.763E+06	2.763E+06		NUBASE
1678	53-I -108	1.0+		0.036 s 16.67	α :90.00; β^+ :9.00; p:1.00	0	3.921E+05	3.921E+05	3.701E+06	NUBASE
1679	53-I -109	2.5+		1.03E-04 s 4.85	p:100.00	0			8.210E+05	NUBASE
1680	53-I -110	1.0+		0.65 s 3.08	β^+ :70.90; α :17.00; β^+ ,p:11.00; β^+ ,n:1.10	0	3.105E+06	3.105E+06	8.877E+05	NUBASE
1681	53-I -111	2.5+		2.5 s 8	β^+ :99.91; α :0.09	0	2.841E+06	2.841E+06	2.882E+03	NUBASE
1682	53-I -112	1.0+		3.42 s 3.22	β^+ :99.02; α :~; β^+ ,p:0.88; β^+ ,n:0.10	0	3.384E+06	3.384E+06	1.746E+04	NUBASE
1683	53-I -113	2.5+		6.6 s 3.03	β^+ :100.00; α :~	0	2.406E+06	2.406E+06	8.951E-03	NUBASE
1684	53-I -114	1.0+		2.1 s 9.52	β^+ :100.00	0	3.030E+06	3.030E+06		NUBASE
1685	53-I -114M	?	2.659E+05	6.2 s 8.06	β^+ :91.00; IT:9.00	0	2.838E+06	2.862E+06		NUBASE
1686	53-I -115	2.5+		1.3 m 0.26	β^+ :50.00; β^+ _m :50.00	0	1.907E+06	1.907E+06		NUBASE
1687	53-I -116	1.0+		2.91 s 5.15	β^+ :100.00	0	2.593E+06	2.593E+06		NUBASE
1688	53-I -117	2.5+		2.22 m 0.03	β^+ :50.00; β^+ _m :50.00	0	1.505E+06	1.505E+06		NUBASE
1689	53-I -118	2.0-		13.7 m 0.06	β^+ :100.00	4	2.107E+06	1.961E+06		ENSDF
1690	53-I -118M	7.0-	1.901E+05	8.5 m 0.10	β^+ :100.00	4	1.148E+06	3.701E+06		ENSDF
1691	53-I -119	2.5+		19.1 m 0.03	β^+ :99.05; β^+ _m :0.95	4	4.829E+05	8.780E+05		ENSDF
1692	53-I -120	2.0-		1.36 h ~	β^+ :100.00	4	1.168E+06	2.099E+06		ENSDF
1693	53-I -120M	7.0-	3.200E+05	53 m 0.13	β^+ :100.00	0	1.978E+06	1.978E+06		NUBASE
1694	53-I -121	2.5+		2.12 h ~	β^+ :99.71; β^+ _m :0.29	4	6.716E+04	3.966E+05		ENSDF
1695	53-I -122	1.0+		3.63 m 0.03	β^+ :100.00	4	1.107E+06	9.616E+05		ENSDF
1696	53-I -123	2.5+		13.223 h ~	β^+ :100.00	4	2.621E+04	1.719E+05		LNHB
1697	53-I -124	2.0-		4.176 d ~	β^+ :100.00	4	1.924E+05	1.111E+06		ENSDF
1698	53-I -125	2.5+		59.407 d ~	β^+ :100.00	4	1.648E+04	4.224E+04		LNHB
1699	53-I -126	2.0-		12.98 d ~	β^- :43.70; β^+ :56.30	5	1.438E+05	4.356E+05		UKPADD64
1700	53-I -127	2.5+								NUBASE
1701	53-I -128	1.0+		24.99 m ~	β^+ :6.90; β^- :93.10	5	7.401E+05	8.609E+04		LNHB
1702	53-I -129	3.5+		1.61E+07 y ~	β^- :100.00	4	6.233E+04	2.451E+04		LNHB
1703	53-I -130	5.0+		12.36 h ~	β^- :100.00	4	2.789E+05	2.136E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1747	54-Xe-131	1.5+									NUBASE
1748	54-Xe-131M	5.5-	1.639E+05	11.93 d	~	IT:100.00	3	1.424E+05	2.007E+04		LNHB
1749	54-Xe-132	0.0+									NUBASE
1750	54-Xe-132M	10.0+	2.752E+06	8.39E-03 s	1.31	IT:100.00	3	5.330E+04	2.709E+06		ENSDF
1751	54-Xe-133	1.5+		5.244 d	~	β^- :100.00	4	1.335E+05	4.612E+04		LNHB
1752	54-Xe-133M	5.5-	2.332E+05	2.188 d	~	IT:100.00	3	1.895E+05	4.160E+04		LNHB
1753	54-Xe-134	0.0+		1.1E+16 y	~	$2\beta^-$:100.00	0	8.300E+05			ENSDF
1754	54-Xe-134M	7.0-	1.966E+06	0.29 s	5.86	IT:100.00	0		1.966E+06		NUBASE
1755	54-Xe-135	1.5+		9.14 h	~	β^- :100.00	4	3.150E+05	2.482E+05		ENSDF
1756	54-Xe-135M	5.5-	5.266E+05	15.29 m	0.01	β^- :0.60; IT:99.40	4	9.369E+04	4.256E+05		ENSDF
1757	54-Xe-136	0.0+		2.1E+20 y	~	$2\beta^-$:100.00	0	2.467E+06			ENSDF
1758	54-Xe-137	3.5-		3.818 m	0.01	β^- :100.00	4	1.695E+06	1.905E+05		ENSDF
1759	54-Xe-138	0.0+		14.08 m	0.01	β^- :100.00	4	6.419E+05	1.124E+06		ENSDF
1760	54-Xe-139	1.5-		39.68 s	0.35	β^- :100.00	0	1.686E+06	1.686E+06		NUBASE
1761	54-Xe-140	0.0+		13.6 s	0.74	β^- :100.00	0	1.354E+06	1.354E+06		NUBASE
1762	54-Xe-141	2.5-		1.73 s	0.58	β^- :99.96; β^- ,n:0.04	0	2.048E+06	2.048E+06	7.147E+01	NUBASE
1763	54-Xe-142	0.0+		1.22 s	1.64	β^- :99.64; β^- ,n:0.36	0	1.673E+06	1.673E+06	8.331E+02	NUBASE
1764	54-Xe-143	2.5-		0.511 s	1.17	β^- :99.00; β^- ,n:1.00	0	2.388E+06	2.388E+06	4.984E+03	NUBASE
1765	54-Xe-144	0.0+		0.388 s	1.80	β^- :97.00; β^- ,n:3.00	0	1.954E+06	1.954E+06	1.740E+04	NUBASE
1766	54-Xe-145	1.5-		0.188 s	2.13	β^- :95.00; β^- ,n:2.50; β^- ,n _m :2.50	0	2.557E+06	2.557E+06	3.686E+04	NUBASE
1767	54-Xe-146	0.0+		0.146 s	4.11	β^- :93.10; β^- ,n:6.90	0	2.214E+06	2.214E+06	5.720E+04	NUBASE
1768	54-Xe-147	1.5-		0.13 s	61.54	β^- :96.00; β^- ,n:4.00	0	2.846E+06	2.846E+06	4.289E+04	NUBASE
1769	55-Cs-112	1.0+		5E-04 s	20	p:100.00	0			8.210E+05	NUBASE
1770	55-Cs-113	2.5+		1.67E-05 s	4.19	p:100.00	0			9.810E+05	NUBASE
1771	55-Cs-114	1.0+		0.57 s	3.51	β^+ :91.09; β^+ ,p:8.70; β^+ ,n:0.19; α :0.02	0	4.019E+06	4.019E+06	2.102E+05	NUBASE
1772	55-Cs-115	4.5+		1.4 s	57.14	β^+ :99.93; β^+ ,p:0.03; β^+ ,p _m :0.03	0	2.985E+06	2.985E+06	9.937E+02	NUBASE
1773	55-Cs-116	1.0+		0.7 s	5.71	β^+ :99.67; β^+ ,p:0.28; β^+ ,n:0.05	0	3.653E+06	3.653E+06	6.454E+03	NUBASE
1774	55-Cs-116M	?	1.000E+05	3.85 s	3.38	β^+ :99.48; β^+ ,p:0.51; β^+ ,n:0.01	0	3.682E+06	3.682E+06	9.284E+03	NUBASE
1775	55-Cs-117	4.5+		8.4 s	7.14	β^+ :100.00	0	2.582E+06	2.582E+06		NUBASE
1776	55-Cs-117M	1.5+	1.500E+05	6.5 s	6.15	β^+ :100.00	0	2.632E+06	2.632E+06		NUBASE
1777	55-Cs-118	?		14 s	14.29	β^+ :99.98; β^+ ,p:0.02; β^+ ,n:~	0	3.223E+06	3.223E+06	2.819E+02	NUBASE
1778	55-Cs-118M	7.0-	1.000E+05	17 s	17.65	β^+ :99.98; β^+ ,p:0.02; β^+ ,n:~	0	3.256E+06	3.256E+06	2.874E+02	NUBASE
1779	55-Cs-119	4.5+		43 s	0.47	β^+ :100.00; β^+ ,n:~; β^+ ,n _m :~	0	2.163E+06	2.163E+06	3.664E-02	NUBASE
1780	55-Cs-119M	1.5+	5.000E+04	30.4 s	0.33	β^+ :100.00	0	2.180E+06	2.180E+06		NUBASE
1781	55-Cs-120	2.0+		1.02 m	0.05	β^+ :100.00; β^+ ,n:~; β^+ ,p:~	0	2.761E+06	2.761E+06	4.930E-01	NUBASE
1782	55-Cs-120M	7.0-	1.000E+05	57 s	10.53	β^+ :100.00; β^+ ,n:~; β^+ ,p:~	0	2.794E+06	2.794E+06	4.998E-01	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1783	55-Cs-121	1.5+		2.583 m 0.04	β^+ :100.00	4	1.736E+06	1.067E+06		ENSDF
1784	55-Cs-121M	4.5+	6.850E+04	2.033 m 0.04	β^+ :83.00; IT:17.00	0	1.505E+06	1.517E+06		NUBASE
1785	55-Cs-122	1.0+		21.2 s 0.94	β^+ :100.00	4	2.518E+06	1.298E+06		ENSDF
1786	55-Cs-122M	8.0-	1.260E+05	3.7 m 0.05	β^+ :100.00	0	2.447E+06	2.447E+06		NUBASE
1787	55-Cs-122N	5.0-	1.270E+05	0.36 s 5.56	IT:50.00; IT _m :50.00	0		6.400E+04		NUBASE
1788	55-Cs-123	0.5+		5.94 m 0.01	β^+ :100.00	4	9.986E+05	9.988E+05		ENSDF
1789	55-Cs-123M	5.5-	1.563E+05	1.64 s 7.32	IT:100.00	3	1.119E+05	4.684E+04		ENSDF
1790	55-Cs-124	1.0+		30.9 s 1.29	β^+ :100.00	0	1.976E+06	1.976E+06		NUBASE
1791	55-Cs-124M	7.0+	4.626E+05	6.3 s 3.17	IT:100.00	0		4.626E+05		NUBASE
1792	55-Cs-125	0.5+		46.7 m ~	β^+ :100.00	4	3.497E+05	6.888E+05		ENSDF
1793	55-Cs-125M	5.5-	2.666E+05	0.9 s 3.33	IT:100.00	0		2.666E+05		NUBASE
1794	55-Cs-126	1.0+		1.64 m 0.02	β^+ :100.00	4	1.318E+06	1.140E+06		ENSDF
1795	55-Cs-127	0.5+		6.25 h ~	β^+ :100.00; β^+ _m :~	4	2.774E+04	4.312E+05		ENSDF
1796	55-Cs-128	1.0+		3.62 m 0.01	β^+ :100.00	4	8.748E+05	8.917E+05		ENSDF
1797	55-Cs-129	0.5+		1.342 d ~	β^+ :100.00	4	1.742E+04	2.832E+05		UKPADD64
1798	55-Cs-130	1.0+		29.21 m ~	β^+ :98.40; β^- :1.60	5	3.867E+05	5.028E+05		ENSDF
1799	55-Cs-130M	5.0-	1.632E+05	3.46 m 0.03	IT:99.84; β^+ :0.16	0	1.677E+03	1.647E+05		NUBASE
1800	55-Cs-131	2.5+		9.69 d ~	β^+ :100.00	3	6.370E+03	2.312E+04		UKPADD64
1801	55-Cs-132	2.0+		6.53 d ~	β^- :1.80; β^+ :98.20	5	1.411E+04	7.152E+05		UKPADD64
1802	55-Cs-133	3.5+								NUBASE
1803	55-Cs-134	4.0+		2.065 y ~	β^+ :~; β^- :100.00	5	1.636E+05	1.555E+06		LNHB
1804	55-Cs-134M	8.0-	1.387E+05	2.908 h ~	IT:100.00	3	1.118E+05	2.708E+04		UKPADD64
1805	55-Cs-135	3.5+		2.3E+06 y ~	β^- :100.00	1	8.940E+04			ENSDF
1806	55-Cs-135M	9.5-	1.633E+06	53 m 0.06	IT:100.00	3	3.370E+04	1.600E+06		ENSDF
1807	55-Cs-136	5.0+		13.03 d ~	β^- :100.00	4	1.419E+05	2.146E+06		UKPADD64
1808	55-Cs-136M	8.0-	6.000E+05	19 s 10.53	β^- :50.00; IT:50.00	0	6.167E+05	6.167E+05		UKPADD64
1809	55-Cs-137	3.5+		30.041 y ~	β^- :5.60; β^- _m :94.40	2	1.879E+05	1.644E+00		ENSDF
1810	55-Cs-138	3.0-		33.41 m 0.01	β^- :100.00	4	1.246E+06	2.355E+06		ENSDF
1811	55-Cs-138M	6.0-	7.990E+04	2.91 m 0.05	IT:81.00; β^- :19.00	0	3.455E+05	4.102E+05		NUBASE
1812	55-Cs-139	3.5+		9.27 m 0.01	β^- :100.00	2	1.640E+06	3.446E+05		ENSDF
1813	55-Cs-140	1.0-		1.062 m 0.01	β^- :100.00	4	1.964E+06	1.675E+06		ENSDF
1814	55-Cs-141	3.5+		24.94 s 0.24	β^- :100.00	4	1.935E+06	7.696E+05		ENSDF
1815	55-Cs-142	0.0-		1.7 s 1.18	β^- :100.00	4	2.899E+06	6.753E+05		ENSDF
1816	55-Cs-143	1.5+		1.791 s 0.39	β^- :98.36; β^- ,n:1.64	0	2.063E+06	2.063E+06	8.531E+03	NUBASE
1817	55-Cs-144	1.0-		0.994 s 0.40	β^- :96.80; β^- ,n:3.20	0	2.763E+06	2.763E+06	2.076E+04	NUBASE
1818	55-Cs-144M	?	3.000E+05	1 s 100	β^- :50.00; IT:50.00	0	1.466E+06	1.616E+06		NUBASE
1819	55-Cs-145	?		0.594 s 2.19	β^- :85.70; β^- ,n:14.30	4	2.956E+06	7.149E+05		ENSDF
1820	55-Cs-146	1.0-		0.323 s 1.86	β^- :85.80; β^- ,n:14.20	0	2.815E+06	2.815E+06	1.320E+05	NUBASE
1821	55-Cs-147	1.5+		0.225 s 2.22	β^- :71.50; β^- ,n:28.50	0	2.395E+06	2.395E+06	3.497E+05	NUBASE
1822	55-Cs-148	?		0.146 s 4.11	β^- :74.90; β^- ,n:25.10	0	3.002E+06	3.002E+06	3.281E+05	NUBASE
1823	55-Cs-149	1.5+		0.15 s 100	β^- :100.00	0	3.213E+06	3.213E+06		NUBASE
1824	55-Cs-150	?		0.1 s 100	β^- :100.00	0	3.880E+06	3.880E+06		NUBASE
1825	55-Cs-151	1.5+		0.06 s 100	β^- :100.00	0	3.533E+06	3.533E+06		NUBASE
1826	56-Ba-114	0.0+		0.53 s 43.40	β^+ :79.10; β^+ ,p:20.00; α :0.90	0	2.707E+06	2.707E+06	4.743E+05	NUBASE
1827	56-Ba-115	2.5+		0.45 s 11.11	β^+ :85.00; β^+ ,p:15.00	0	3.427E+06	3.427E+06	4.038E+05	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1828	56-Ba-116	0.0+		1.3 s 15.38	β^+ :97.00; β^+ ,p:3.00	0	2.466E+06	2.466E+06	5.076E+04	NUBASE
1829	56-Ba-117	1.5+		1.75 s 4	β^+ _m :86.98; β^+ ,p:13.00; β^+ ,n:0.02	0	2.885E+06	2.885E+06	2.759E+05	NUBASE
1830	56-Ba-118	0.0+		5.2 s 3.85	β^+ :100.00	0	2.013E+06	2.013E+06		NUBASE
1831	56-Ba-119	2.5+		5.4 s 5.56	β^+ :37.50; β^+ _m :37.50; β^+ ,p:25.00	0	2.310E+06	2.310E+06	3.875E+05	NUBASE
1832	56-Ba-120	0.0+		24 s 8.33	β^+ :100.00	0	1.666E+06	1.666E+06		NUBASE
1833	56-Ba-121	2.5+		29.7 s 5.05	β^+ :49.99; β^+ _m :49.99; β^+ ,p:0.02	0	2.108E+06	2.108E+06	2.072E+02	NUBASE
1834	56-Ba-122	0.0+		1.95 m 0.13	β^+ :100.00	0	1.177E+06	1.177E+06		NUBASE
1835	56-Ba-123	2.5+		2.7 m 0.25	β^+ :50.00; β^+ _m :50.00	0	1.770E+06	1.770E+06		NUBASE
1836	56-Ba-124	0.0+		11 m 0.08	β^+ :100.00	4	1.621E+05	5.500E+05		ENSDF
1837	56-Ba-125	0.5+		3.5 m 0.19	β^+ :100.00	0	1.473E+06	1.473E+06		NUBASE
1838	56-Ba-126	0.0+		1.667 h ~	β^+ :100.00	4	1.813E+04	5.651E+05		UKPADD64
1839	56-Ba-127	0.5+		12.7 m 0.05	β^+ :100.00	4	5.928E+05	7.123E+05		ENSDF
1840	56-Ba-127M	3.5-	8.033E+04	1.9 s 10.53	IT:100.00	0		8.033E+04		NUBASE
1841	56-Ba-128	0.0+		2.43 d ~	β^+ :100.00	4	7.054E+03	6.599E+04		ENSDF
1842	56-Ba-129	0.5+		2.38 h ~	β^+ :100.00	4	1.273E+05	4.665E+05		UKPADD64
1843	56-Ba-129M	3.5+	8.420E+03	2.14 h ~	β^+ :100.00	4	6.910E+04	1.207E+06		UKPADD64
1844	56-Ba-130	0.0+								NUBASE
1845	56-Ba-130M	8.0-	2.475E+06	9.54E-03 s 1.47	IT:100.00	0		2.475E+06		NUBASE
1846	56-Ba-131	0.5+		11.55 d ~	β^+ :100.00	4	4.625E+04	4.595E+05		UKPADD64
1847	56-Ba-131M	4.5-	1.875E+05	14.6 m 0.02	IT:100.00	3	1.101E+05	7.715E+04		UKPADD64
1848	56-Ba-132	0.0+								NUBASE
1849	56-Ba-133	0.5+		10.54 y ~	β^+ :100.00	4	5.348E+04	4.017E+05		LNHB
1850	56-Ba-133M	5.5-	2.882E+05	1.592 d ~	β^+ :0.01; IT:99.99	4	2.216E+05	6.691E+04		UKPADD64
1851	56-Ba-134	0.0+								NUBASE
1852	56-Ba-135	1.5+								NUBASE
1853	56-Ba-135M	5.5-	2.682E+05	1.196 d ~	IT:100.00	3	2.059E+05	6.108E+04		ENSDF
1854	56-Ba-136	0.0+								NUBASE
1855	56-Ba-136M	7.0-	2.031E+06	0.308 s 0.62	IT:100.00	3	1.020E+05	1.927E+06		ENSDF
1856	56-Ba-137	1.5+								NUBASE
1857	56-Ba-137M	5.5-	6.617E+05	2.552 m ~	IT:100.00	3	6.073E+04	5.984E+05		LNHB
1858	56-Ba-138	0.0+								NUBASE
1859	56-Ba-139	3.5-		1.384 h ~	β^- :100.00	4	8.977E+05	4.562E+04		ENSDF
1860	56-Ba-140	0.0+		12.765 d ~	β^- :100.00	4	3.106E+05	1.801E+05		LNHB
1861	56-Ba-141	1.5-		18.27 m 0.01	β^- :100.00	4	9.451E+05	8.712E+05		ENSDF
1862	56-Ba-142	0.0+		10.6 m 0.03	β^- :100.00	4	3.991E+05	1.045E+06		ENSDF
1863	56-Ba-143	2.5-		14.5 s 2.07	β^- :100.00	0	1.417E+06	1.417E+06		NUBASE
1864	56-Ba-144	0.0+		11.5 s 1.74	β^- :100.00	0	1.040E+06	1.040E+06		NUBASE
1865	56-Ba-145	2.5-		4.31 s 3.71	β^- :100.00	0	1.860E+06	1.860E+06		NUBASE
1866	56-Ba-146	0.0+		2.22 s 3.15	β^- :100.00	0	1.373E+06	1.373E+06		NUBASE
1867	56-Ba-147	1.5+		0.893 s 0.11	β^- :100.00	4	2.379E+06	2.888E+05		ENSDF
1868	56-Ba-148	0.0+		0.612 s 2.78	β^- :99.60; β^- ,n:0.40	0	1.701E+06	1.701E+06	7.687E+02	NUBASE
1869	56-Ba-149	1.5-		0.344 s 2.03	β^- :99.57; β^- ,n:0.43	0	2.428E+06	2.428E+06	1.686E+03	NUBASE
1870	56-Ba-150	0.0+		0.3 s 100	β^- :100.00	0	2.147E+06	2.147E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1871	56-Ba-151	1.5-		0.2 s 100	β^- :100.00	0	2.823E+06	2.823E+06		NUBASE
1872	56-Ba-152	0.0+		0.1 s 100	β^- :100.00	0	2.490E+06	2.490E+06		NUBASE
1873	56-Ba-153	2.5-		0.08 s 100	β^- :100.00	0	3.103E+06	3.103E+06		NUBASE
1874	57-La-117	?		0.024 s 11.06	p:94.00; β^+ :6.00	0	2.156E+05	2.156E+05	7.529E+05	NUBASE
1875	57-La-117M	4.5+	1.380E+05	0.01 s 50	p:97.00; β^+ :3.00	0	1.092E+05	1.092E+05	9.108E+05	NUBASE
1876	57-La-118	?		0.2 s 100	β^+ :100.00	0	4.250E+06	4.250E+06		NUBASE
1877	57-La-119	5.5-		1 s 100	β^+ :100.00	0	3.207E+06	3.207E+06		NUBASE
1878	57-La-120	?		2.8 s 7.14	β^+ :100.00	0	3.733E+06	3.733E+06		NUBASE
1879	57-La-121	5.5-		5.3 s 3.77	β^+ :100.00	0	2.780E+06	2.780E+06		NUBASE
1880	57-La-122	?		8.7 s 8.05	β^+ :100.00	0	3.356E+06	3.356E+06		NUBASE
1881	57-La-123	5.5-		17 s 17.65	β^+ :100.00	0	2.315E+06	2.315E+06		NUBASE
1882	57-La-124	?		29.21 s 0.58	β^+ :100.00	0	2.943E+06	2.943E+06		NUBASE
1883	57-La-124M	0.0+	1.000E+05	21 s 19.05	β^+ :100.00	0	2.977E+06	2.977E+06		NUBASE
1884	57-La-125	5.5-		1.08 m 0.03	β^+ :100.00	0	1.970E+06	1.970E+06		NUBASE
1885	57-La-125M	1.5+	1.070E+05	0.39 s 10.26	IT:100.00	0		1.070E+05		NUBASE
1886	57-La-126	5.0+		54 s 3.70	β^+ :100.00	0	2.567E+06	2.567E+06		NUBASE
1887	57-La-126M	?	1.000E+05	20 s 100	β^+ :100.00	0	2.600E+06	2.600E+06		NUBASE
1888	57-La-127	5.5-		5.1 m 0.03	β^+ :100.00	0	1.613E+06	1.613E+06		NUBASE
1889	57-La-127M	1.5+	1.480E+04	3.7 m 0.18	β^+ :100.00	0	1.645E+06	1.645E+06		NUBASE
1890	57-La-128	5.0+		5.18 m 0.05	β^+ :100.00	0	2.257E+06	2.257E+06		NUBASE
1891	57-La-128M	?	1.000E+05	1.4 m 1.67	β^+ :100.00	0	2.291E+06	2.291E+06		NUBASE
1892	57-La-129	1.5+		11.6 m 0.03	β^+ :92.61; β^+ :7.39	4	6.212E+05	9.217E+05		ENSDF
1893	57-La-129M	5.5-	1.721E+05	0.56 s 8.93	IT:100.00	0		1.721E+05		NUBASE
1894	57-La-130	3.0+		8.7 m 0.02	β^+ :100.00	4	1.113E+06	2.199E+06		ENSDF
1895	57-La-131	1.5+		59 m 0.06	β^+ :100.00	4	2.115E+05	6.586E+05		ENSDF
1896	57-La-132	2.0-		4.8 h ~	β^+ :100.00	4	5.561E+05	1.944E+06		ENSDF
1897	57-La-132M	6.0-	1.882E+05	24.3 m 0.03	IT:76.00; β^+ :24.00	0	3.906E+05	5.337E+05		NUBASE
1898	57-La-133	2.5+		3.912 h ~	β^+ :100.00; β^+ :~	4	3.758E+04	1.275E+05		ENSDF
1899	57-La-134	1.0+		6.45 m 0.04	β^+ :100.00	4	7.580E+05	7.161E+05		ENSDF
1900	57-La-135	2.5+		19.5 h ~	β^+ :100.00; β^+ :~	4	5.152E+03	3.574E+04		ENSDF
1901	57-La-136	1.0+		9.87 m 0.01	β^+ :100.00	4	3.030E+05	4.146E+05		ENSDF
1902	57-La-136M	?	2.550E+05	0.114 s 2.63	IT:100.00	0		2.550E+05		NUBASE
1903	57-La-137	3.5+		6E+04 y ~	β^+ :100.00	3	6.552E+03	2.559E+04		UKPADD64
1904	57-La-138	5.0+		1.02E+11 y ~	β^+ :65.60; β^- :34.40	5	3.650E+04	1.226E+06		ENSDF
1905	57-La-139	3.5+								NUBASE
1906	57-La-140	3.0-		1.679 d ~	β^- :100.00	4	5.351E+05	2.313E+06		UKPADD64
1907	57-La-141	3.5+		3.92 h ~	β^- :100.00	2	9.625E+05	2.678E+04		ENSDF
1908	57-La-142	2.0-		1.518 h ~	β^- :100.00	4	8.682E+05	2.325E+06		ENSDF
1909	57-La-143	3.5+		14.14 m 0.02	β^- :100.00	2	1.237E+06	2.523E+05		ENSDF
1910	57-La-144	3.0-		40.8 s 0.98	β^- :100.00	4	1.382E+06	2.330E+06		ENSDF
1911	57-La-145	2.5+		24.8 s 8.06	β^- :100.00	4	1.499E+06	6.239E+05		ENSDF
1912	57-La-146	2.0-		6.27 s 1.59	β^- :100.00	4	2.345E+06	1.195E+06		ENSDF
1913	57-La-146M	6.0-	1.300E+05	10 s 1	β^- :100.00	0	2.230E+06	2.230E+06		NUBASE
1914	57-La-147	2.5+		4.015 s 0.20	β^- :100.00	4	2.059E+06	1.837E+05		ENSDF
1915	57-La-148	2.0-		1.428 s 0.84	β^- :100.00	4	2.145E+06	1.194E+06		ENSDF
1916	57-La-149	2.5+		1.05 s 2.86	β^- :98.60; β^- ,n:1.40	0	1.944E+06	1.944E+06	5.319E+03	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1917	57-La-150	3.0+		0.51 s 5.88	β^- :97.30; β^- ,n:2.70	0	2.534E+06	2.534E+06	1.072E+04	NUBASE
1918	57-La-151	2.5+		0.3 s 100	β^- :100.00	0	2.403E+06	2.403E+06		NUBASE
1919	57-La-152	2.0-		0.28 s 21.43	β^- :93.96; β^- ,n:6.04	3	2.355E+06	2.885E+06	2.396E+04	UKPADD64
1920	57-La-153	2.5+		0.15 s 100	β^- :100.00	0	2.807E+06	2.807E+06		NUBASE
1921	57-La-154	?		0.1 s 100	β^- :100.00	0	3.440E+06	3.440E+06		NUBASE
1922	57-La-155	2.5+		0.06 s 100	β^- :100.00	0	3.200E+06	3.200E+06		NUBASE
1923	58-Ce-119	2.5+		0.2 s 100	β^+ :100.00	0	3.657E+06	3.657E+06		NUBASE
1924	58-Ce-120	0.0+		0.25 s 60	β^+ :100.00	0	2.660E+06	2.660E+06		NUBASE
1925	58-Ce-121	2.5+		1.1 s 9.09	β^+ :99.00; β^+ ,p:1.00	0	3.223E+06	3.223E+06	2.225E+04	NUBASE
1926	58-Ce-122	0.0+		2 s 100	β^+ :100.00	0	2.233E+06	2.233E+06		NUBASE
1927	58-Ce-123	2.5+		3.8 s 5.26	β^+ :100.00	0	2.843E+06	2.843E+06		NUBASE
1928	58-Ce-124	0.0+		9.1 s 13.19	β^+ :100.00	0	1.780E+06	1.780E+06		NUBASE
1929	58-Ce-125	3.5-		9.3 s 3.23	β^+ :100.00	0	2.331E+06	2.331E+06		NUBASE
1930	58-Ce-126	0.0+		51 s 0.59	β^+ :100.00	0	1.350E+06	1.350E+06		NUBASE
1931	58-Ce-127	2.5+		29 s 6.90	β^+ :50.00; β^+ ,m:50.00	0	1.970E+06	1.970E+06		NUBASE
1932	58-Ce-127M	0.5+		34 s 5.88	β^+ :100.00	0	1.967E+06	1.967E+06		NUBASE
1933	58-Ce-128	0.0+		3.93 m 0.01	β^+ :100.00	0	9.987E+05	9.987E+05		NUBASE
1934	58-Ce-129	2.5+		3.5 m 0.24	β^+ :50.00; β^+ ,m:50.00	0	1.651E+06	1.651E+06		NUBASE
1935	58-Ce-130	0.0+		22.9 m 0.04	β^+ :100.00	4	2.538E+04	4.929E+05		ENSDF
1936	58-Ce-131	3.5+		10.2 m 0.05	β^+ :100.00	0	1.350E+06	1.350E+06		NUBASE
1937	58-Ce-131M	0.5+	6.180E+04	5 m 0.33	β^+ :100.00	0	1.370E+06	1.370E+06		NUBASE
1938	58-Ce-132	0.0+		3.51 h ~	β^+ :100.00	4	1.490E+04	2.722E+05		ENSDF
1939	58-Ce-132M	8.0-	2.341E+06	9.4E-03 s 3.19	IT:100.00	0		2.341E+06		NUBASE
1940	58-Ce-133	0.5+		1.617 h ~	β^+ :100.00	4	3.487E+05	4.562E+05		ENSDF
1941	58-Ce-133M	4.5-	3.710E+04	4.9 h ~	β^+ :100.00	0	1.036E+06	1.036E+06		NUBASE
1942	58-Ce-134	0.0+		3.16 d ~	β^+ :100.00	4	5.426E+03	2.798E+04		ENSDF
1943	58-Ce-135	0.5+		17.7 h ~	β^+ :100.00	4	2.727E+04	8.220E+05		ENSDF
1944	58-Ce-135M	5.5-	4.458E+05	20 s 5	IT:100.00	3	1.568E+05	2.917E+05		ENSDF
1945	58-Ce-136	0.0+		7E+13 y ~	2 β^+ :100.00	0	2.419E+06			NUBASE
1946	58-Ce-137	1.5+		9 h ~	β^+ :100.00	4	1.247E+04	3.809E+04		ENSDF
1947	58-Ce-137M	5.5-	2.543E+05	1.433 d ~	β^+ :0.78; IT:99.22	4	2.027E+05	5.544E+04		ENSDF
1948	58-Ce-138	0.0+								NUBASE
1949	58-Ce-138M	7.0-	2.129E+06	8.65E-03 s 2.31	IT:100.00	0		2.129E+06		NUBASE
1950	58-Ce-139	1.5+		137.641 d ~	β^+ :100.00	4	3.221E+04	1.605E+05		LNHB
1951	58-Ce-139M	5.5-	7.542E+05	56.1 s 1.07	IT:100.00	3	5.509E+04	6.991E+05		UKPADD64
1952	58-Ce-140	0.0+								NUBASE
1953	58-Ce-141	3.5-		32.5 d ~	β^- :100.00	4	1.684E+05	7.651E+04		LNHB
1954	58-Ce-142	0.0+		5E+16 y ~	2 β^- :100.00	0	1.417E+06			ENSDF
1955	58-Ce-143	1.5-		1.379 d ~	β^- :100.00	4	4.289E+05	2.790E+05		ENSDF
1956	58-Ce-144	0.0+		285 d ~	β^- :98.62; β^- ,m:1.38	4	9.123E+04	1.905E+04		LNHB
1957	58-Ce-145	1.5-		2.95 m 0.03	β^- :100.00	4	7.626E+05	6.010E+05		UKPADD64
1958	58-Ce-146	0.0+		13.52 m 0.02	β^- :100.00	0	3.433E+05	3.433E+05		NUBASE
1959	58-Ce-147	2.5-		57 s 3.51	β^- :100.00	4	1.282E+06	1.742E+05		UKPADD64
1960	58-Ce-148	0.0+		56 s 1.79	β^- :100.00	0	7.133E+05	7.133E+05		NUBASE
1961	58-Ce-149	1.5-		5.3 s 3.77	β^- :100.00	0	1.453E+06	1.453E+06		NUBASE
1962	58-Ce-150	0.0+		4 s 15	β^- :100.00	0	1.161E+06	1.161E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
1963	58-Ce-151	1.5-		1.02 s 5.88	β^- :100.00	0	1.757E+06	1.757E+06		NUBASE
1964	58-Ce-152	0.0+		1.1 s 27.27	β^- :100.00	0	1.567E+06	1.567E+06		NUBASE
1965	58-Ce-153	1.5-		1.5 s 20	β^- :99.38; β^- ,n:0.62	3	1.680E+06	1.125E+06	1.573E+03	UKPADD64
1966	58-Ce-154	0.0+		2 s 20	β^- :99.36; β^- ,n:0.64	3	1.694E+06	9.587E+05	1.619E+03	UKPADD64
1967	58-Ce-155	2.5-		0.2 s 100	β^- :100.00	0	2.460E+06	2.460E+06		NUBASE
1968	58-Ce-156	0.0+		0.15 s 100	β^- :100.00	0	2.170E+06	2.170E+06		NUBASE
1969	58-Ce-157	3.5+		0.05 s 100	β^- :100.00	0	2.767E+06	2.767E+06		NUBASE
1970	59-Pr-121	1.5-		0.6 s 50	p:50.00; β^+ :50.00	0	1.853E+06	1.853E+06	4.205E+05	NUBASE
1971	59-Pr-122	?		0.5 s 100	β^+ :100.00	0	4.317E+06	4.317E+06		NUBASE
1972	59-Pr-123	1.5+		0.8 s 100	β^+ :100.00	0	3.280E+06	3.280E+06		NUBASE
1973	59-Pr-124	?		1.2 s 16.67	β^+ :100.00	0	3.897E+06	3.897E+06		NUBASE
1974	59-Pr-125	1.5+		3.3 s 21.21	β^+ :100.00	0	2.917E+06	2.917E+06		NUBASE
1975	59-Pr-126	?		3.12 s 5.77	β^+ :100.00	0	3.520E+06	3.520E+06		NUBASE
1976	59-Pr-127	1.5+		4.2 s 7.14	β^+ :50.00; β^+ _m :50.00	0	2.517E+06	2.517E+06		NUBASE
1977	59-Pr-127M	5.5-	6.000E+05	0.05 s 100	β^+ :25.00; β^+ _m :25.00; IT:50.00	0	1.358E+06	1.658E+06		NUBASE
1978	59-Pr-128	4.0-		2.85 s 3.16	β^+ :100.00	4	3.454E+06	1.567E+06		ENSDF
1979	59-Pr-129	1.5+		30 s 13.33	β^+ :100.00	0	2.171E+06	2.171E+06		NUBASE
1980	59-Pr-129M	5.5-	3.827E+05	1E-03 s 100	IT:100.00	0		3.827E+05		NUBASE
1981	59-Pr-130	?		40 s 1	β^+ :100.00	0	2.748E+06	2.748E+06		NUBASE
1982	59-Pr-130M	2.0+	1.000E+05	10 s 100	β^+ :100.00	0	2.781E+06	2.781E+06		NUBASE
1983	59-Pr-131	1.5+		1.5 m 0.03	β^+ :50.00; β^+ _m :50.00	0	1.803E+06	1.803E+06		NUBASE
1984	59-Pr-131M	5.5-	1.524E+05	5.7 s 3.51	IT:96.40; β^+ :3.60	0	6.711E+04	2.140E+05		NUBASE
1985	59-Pr-132	2.0+		1.49 m 0.12	β^+ :100.00	0	2.421E+06	2.421E+06		NUBASE
1986	59-Pr-132M	5.0+		20 s 100	β^+ :50.00; β^+ _m :50.00	0	2.031E+06	2.031E+06		NUBASE
1987	59-Pr-133	1.5+		6.5 m 0.08	β^+ :100.00	0	1.495E+06	1.495E+06		NUBASE
1988	59-Pr-134	2.0-		17 m 0.20	β^+ :100.00	4	1.192E+06	2.066E+06		ENSDF
1989	59-Pr-134M	2.0-		17 m 0.20	β^+ :100.00	0	2.109E+06	2.109E+06		NUBASE
1990	59-Pr-135	1.5+		24 m 0.14	β^+ :100.00	0	1.230E+06	1.230E+06		NUBASE
1991	59-Pr-136	2.0+		13.1 m 0.01	β^+ :100.00	4	7.535E+05	2.065E+06		ENSDF
1992	59-Pr-137	2.5+		1.28 h ~	β^+ :100.00	4	1.930E+05	3.639E+05		ENSDF
1993	59-Pr-138	1.0+		1.45 m 0.06	β^+ :100.00	4	1.161E+06	8.150E+05		ENSDF
1994	59-Pr-138M	7.0-	3.640E+05	2.12 h ~	β^+ :100.00	4	2.227E+05	2.443E+06		ENSDF
1995	59-Pr-139	2.5+		4.41 h ~	β^+ :99.98; β^+ _m :0.02	4	4.621E+04	1.294E+05		ENSDF
1996	59-Pr-140	1.0+		3.39 m ~	β^+ :100.00	4	5.465E+05	5.425E+05		ENSDF
1997	59-Pr-141	2.5+								NUBASE
1998	59-Pr-142	2.0-		19.12 h ~	β^+ :0.02; β^- :99.98	5	8.093E+05	5.811E+04		ENSDF
1999	59-Pr-142M	5.0-	3.694E+03	14.6 m 0.06	IT:100.00	0		3.694E+03		NUBASE
2000	59-Pr-143	3.5+		13.56 d ~	β^- :100.00	3	3.146E+05	8.904E-03		UKPADD64
2001	59-Pr-144	0.0-		17.28 m ~	β^- :100.00	4	1.201E+06	3.376E+04		UKPADD64
2002	59-Pr-144M	3.0-	5.903E+04	6.9 m 0.17	IT:99.93; β^- :0.07	4	4.717E+04	1.366E+04		UKPADD64
2003	59-Pr-145	3.5+		5.984 h ~	β^- :100.00	0	6.017E+05	6.017E+05		NUBASE
2004	59-Pr-146	2.0-		24.15 m 0.01	β^- :100.00	2	1.317E+06	9.874E+05		ENSDF
2005	59-Pr-147	1.5+		13.4 m 0.05	β^- :100.00	0	8.990E+05	8.990E+05		NUBASE
2006	59-Pr-148	1.0-		2.29 m 0.01	β^- :100.00	4	1.679E+06	9.377E+05		ENSDF
2007	59-Pr-148M	4.0+	9.000E+04	2.02 m 0.07	β^- :100.00	2	1.701E+06	9.368E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2008	59-Pr-149	2.5+		2.26 m 0.05	β^- :100.00	4	1.286E+06	3.049E+05		ENSDF
2009	59-Pr-150	1.0-		6.1 s 6.56	β^- :100.00	4	2.230E+06	5.542E+05		UKPADD64
2010	59-Pr-151	1.5-		18.9 s 0.37	β^- :100.00	0	1.394E+06	1.394E+06		NUBASE
2011	59-Pr-152	4.0-		3.63 s 3.31	β^- :100.00	4	2.116E+06	1.685E+06		ENSDF
2012	59-Pr-153	2.5-		4.28 s 2.57	β^- :100.00	0	1.906E+06	1.906E+06		NUBASE
2013	59-Pr-154	?		2.3 s 4.35	β^- :100.00	0	2.497E+06	2.497E+06		NUBASE
2014	59-Pr-155	2.5-		1 s 100	β^- :100.00	0	2.230E+06	2.230E+06		NUBASE
2015	59-Pr-156	2.0-		0.5 s 20	β^- :97.28; β^- ,n:2.72	3	2.149E+06	2.688E+06	8.930E+03	UKPADD64
2016	59-Pr-157	2.5-		0.3 s 20	β^- :93.61; β^- ,n:6.39	3	2.387E+06	1.881E+06	2.372E+04	UKPADD64
2017	59-Pr-158	?		0.2 s 100	β^- :100.00	0	3.223E+06	3.223E+06		NUBASE
2018	59-Pr-159	2.5-		0.1 s 100	β^- :100.00	0	2.923E+06	2.923E+06		NUBASE
2019	60-Nd-124	0.0+		0.5 s 100	β^+ :100.00	0	2.877E+06	2.877E+06		NUBASE
2020	60-Nd-125	2.5+		0.6 s 25	β^+ :100.00	0	3.430E+06	3.430E+06		NUBASE
2021	60-Nd-126	0.0+		1 s 100	β^+ :100.00	0	2.457E+06	2.457E+06		NUBASE
2022	60-Nd-127	2.5+		1.8 s 22.22	β^+ :100.00	0	3.003E+06	3.003E+06		NUBASE
2023	60-Nd-128	0.0+		5 s 100	β^+ :100.00	0	2.050E+06	2.050E+06		NUBASE
2024	60-Nd-129	2.5+		4.9 s 4.08	β^+ :100.00	0	2.511E+06	2.511E+06		NUBASE
2025	60-Nd-130	0.0+		21 s 14.29	β^+ _m :100.00	0	1.495E+06	1.495E+06		NUBASE
2026	60-Nd-131	2.5+		33 s 9.09	β^+ :100.00	0	2.170E+06	2.170E+06		NUBASE
2027	60-Nd-132	0.0+		1.467 m 0.13	β^+ :100.00	4	4.833E+05	9.320E+05		ENSDF
2028	60-Nd-133	3.5+		1.167 m 0.24	β^+ :100.00	0	1.869E+06	1.869E+06		NUBASE
2029	60-Nd-133M	0.5+	1.280E+05	1.167 m 1.67	β^+ :100.00	0	1.912E+06	1.912E+06		NUBASE
2030	60-Nd-134	0.0+		8.5 m 0.29	β^+ :100.00	4	1.316E+05	5.106E+05		ENSDF
2031	60-Nd-135	4.5-		12.4 m 0.08	β^+ :100.00	0	1.574E+06	1.574E+06		NUBASE
2032	60-Nd-135M	0.5+	6.500E+04	5.5 m 0.15	β^+ :99.97; IT:0.03	0	1.595E+06	1.595E+06		NUBASE
2033	60-Nd-136	0.0+		50.65 m 0.01	β^+ :100.00	4	6.093E+04	2.804E+05		ENSDF
2034	60-Nd-137	0.5+		38.5 m 0.06	β^+ :100.00	0	1.199E+06	1.199E+06		NUBASE
2035	60-Nd-137M	5.5-	5.194E+05	1.6 s 9.37	IT:100.00	0		5.194E+05		NUBASE
2036	60-Nd-138	0.0+		5.04 h ~	β^+ :100.00	0	3.713E+05	3.713E+05		NUBASE
2037	60-Nd-139	1.5+		29.7 m 0.03	β^+ :100.00	4	2.075E+05	4.211E+05		ENSDF
2038	60-Nd-139M	5.5-	2.312E+05	5.5 h ~	β^+ :88.20; IT:11.80	0	9.003E+05	9.275E+05		NUBASE
2039	60-Nd-140	0.0+		3.37 d ~	β^+ :100.00	3	6.735E+03	2.773E+04		UKPADD64
2040	60-Nd-141	1.5+		2.49 h ~	β^+ :100.00	4	1.416E+04	7.515E+04		ENSDF
2041	60-Nd-141M	5.5-	7.565E+05	1.033 m 0.02	IT:99.97; β^+ :0.03	0	2.751E+02	7.565E+05		NUBASE
2042	60-Nd-142	0.0+								NUBASE
2043	60-Nd-143	3.5-								NUBASE
2044	60-Nd-144	0.0+		2.29E+15 y ~	α :100.00	1			1.905E+06	ENSDF
2045	60-Nd-145	3.5-								NUBASE
2046	60-Nd-146	0.0+								NUBASE
2047	60-Nd-147	2.5-		10.98 d ~	β^- :100.00	4	2.690E+05	1.376E+05		LNHB
2048	60-Nd-148	0.0+		2.7E+18 y ~	2 β^- :100.00	0	1.929E+06			ENSDF
2049	60-Nd-149	2.5-		1.728 h ~	β^- :100.00	4	5.021E+05	3.700E+05		ENSDF
2050	60-Nd-150	0.0+		2.1E+19 y ~	2 β^- :100.00	0	3.368E+06			ENSDF
2051	60-Nd-151	1.5+		12.44 m 0.01	β^- :100.00	4	6.074E+05	8.428E+05		ENSDF
2052	60-Nd-152	0.0+		11.4 m 0.03	β^- :100.00	0	3.680E+05	3.680E+05		NUBASE
2053	60-Nd-153	1.5-		31.6 s 3.16	β^- :100.00	0	1.112E+06	1.112E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	<β> (eV)	<γ> (eV)	<α> (eV)	Source
2054	60-Nd-154	0.0+		25.9 s 0.77	β-:100.00	0	9.367E+05	9.367E+05		NUBASE
2055	60-Nd-155	1.5-		8.9 s 2.25	β-:100.00	0	1.500E+06	1.500E+06		NUBASE
2056	60-Nd-156	0.0+		5.49 s 1.28	β-:100.00	0	1.230E+06	1.230E+06		NUBASE
2057	60-Nd-157	2.5-		2.5 s 20	β-:100.00	2	1.668E+06	1.140E+06		UKPADD64
2058	60-Nd-158	0.0+		0.7 s 28.57	β-:100.00; β-,n:0.01	3	1.589E+06	9.239E+05	5.383E+00	UKPADD64
2059	60-Nd-159	3.5+		0.5 s 20	β-:99.76; β-,n:0.24	3	2.063E+06	1.666E+06	5.109E+02	UKPADD64
2060	60-Nd-160	0.0+		0.3 s 20	β-:99.05; β-,n:0.95	3	2.100E+06	1.206E+06	2.492E+03	UKPADD64
2061	60-Nd-161	0.5-		0.2 s 100	β-:100.00	0	2.490E+06	2.490E+06		NUBASE
2062	61-Pm-126	?		0.5 s 100	β+:100.00	0	4.440E+06	4.440E+06		NUBASE
2063	61-Pm-127	2.5+		1 s 100	β+:50.00; p:50.00	0	1.727E+06	1.727E+06	2.705E+05	NUBASE
2064	61-Pm-128	6.0+		1 s 30	β+:100.00	0	4.043E+06	4.043E+06		NUBASE
2065	61-Pm-129	2.5+		3 s 100	β+:100.00	0	3.097E+06	3.097E+06		NUBASE
2066	61-Pm-130	?		2.6 s 7.69	β+:100.00	0	3.709E+06	3.709E+06		NUBASE
2067	61-Pm-131	2.5+		6.3 s 12.70	β+:100.00	0	2.676E+06	2.676E+06		NUBASE
2068	61-Pm-132	3.0+		6.3 s 11.11	β+:100.00	4	3.818E+06	1.506E+06		ENSDF
2069	61-Pm-133	1.5+		15 s 20	β+:50.00; β+m:50.00	0	2.285E+06	2.285E+06		NUBASE
2070	61-Pm-133M	5.5-	1.304E+05	10 s 100	β+:50.00; IT:50.00	0	1.175E+06	1.240E+06		NUBASE
2071	61-Pm-134	2.0+		5 s 100	β+:100.00	4	3.225E+06	1.772E+06		ENSDF
2072	61-Pm-134M	2.0+		5 s 100	β+:100.00	0	2.969E+06	2.969E+06		NUBASE
2073	61-Pm-135	?		49 s 6.12	β+:50.00; β+m:50.00	0	2.067E+06	2.067E+06		NUBASE
2074	61-Pm-135M	5.5-	5.000E+04	40 s 7.50	β+:100.00	0	2.095E+06	2.095E+06		NUBASE
2075	61-Pm-136	5.0-		1.783 m 0.09	β+:100.00	0	2.666E+06	2.666E+06		NUBASE
2076	61-Pm-136M	2.0+	2.800E+05	47 s 4.26	β+:100.00	0	2.760E+06	2.760E+06		NUBASE
2077	61-Pm-137	2.5+		2 m 1.67	β+:50.00; β+m:50.00	0	1.749E+06	1.749E+06		NUBASE
2078	61-Pm-137M	5.5-	1.800E+05	2.4 m 0.07	β+:37.42; β+m:62.58	0	1.787E+06	1.787E+06		NUBASE
2079	61-Pm-138	1.0+		10 s 20	β+:100.00	0	2.359E+06	2.359E+06		NUBASE
2080	61-Pm-138M	5.0-	3.000E+04	3.24 m 0.03	β+:100.00	0	2.369E+06	2.369E+06		NUBASE
2081	61-Pm-139	2.5+		4.15 m 0.02	β+:100.00	4	1.070E+06	9.400E+05		ENSDF
2082	61-Pm-139M	5.5-	1.887E+05	0.18 s 11.11	IT:99.94	3	1.007E+05	8.519E+04		ENSDF
2083	61-Pm-140	1.0+		9.2 s 2.17	β+:100.00	4	2.034E+06	9.837E+05		ENSDF
2084	61-Pm-140M	7.0-	4.000E+05	5.95 m 0.01	β+:100.00	4	9.794E+05	2.963E+06		ENSDF
2085	61-Pm-141	2.5+		20.9 m ~	β+:99.84; β+m:0.16	4	6.314E+05	7.491E+05		ENSDF
2086	61-Pm-142	1.0+		40.5 s 1.23	β+:100.00	4	1.368E+06	8.690E+05		ENSDF
2087	61-Pm-142M	8.0-	8.832E+05	2E-03 s 10	IT:100.00	0		8.832E+05		NUBASE
2088	61-Pm-143	2.5+		266 d ~	β+:100.00	4	8.114E+03	3.158E+05		UKPADD64
2089	61-Pm-144	5.0-		363 d ~	β+:100.00	4	1.677E+04	1.556E+06		UKPADD64
2090	61-Pm-145	2.5+		17.7 y ~	β+:100.00; α:~	5	1.220E+04	3.153E+04	6.502E-03	UKPADD64
2091	61-Pm-146	3.0-		5.531 y ~	β-:34.00; β+:66.00	5	9.441E+04	7.543E+05		UKPADD64
2092	61-Pm-147	3.5+		2.623 y ~	β-:100.00	4	6.196E+04	4.375E+00		ENSDF
2093	61-Pm-148	1.0-		5.368 d ~	β-:100.00	4	7.263E+05	5.765E+05		UKPADD64
2094	61-Pm-148M	6.0-	1.379E+05	41.05 d ~	β-:95.00; IT:5.00	4	1.710E+05	1.984E+06		UKPADD64
2095	61-Pm-149	3.5+		2.212 d ~	β-:100.00	4	3.661E+05	1.186E+04		ENSDF
2096	61-Pm-150	1.0-		2.68 h ~	β-:100.00	4	7.342E+05	1.450E+06		ENSDF
2097	61-Pm-151	2.5+		1.183 d ~	β-:100.00	4	3.032E+05	3.267E+05		ENSDF
2098	61-Pm-152	1.0+		4.12 m 0.03	β-:100.00	4	1.326E+06	2.852E+05		ENSDF
2099	61-Pm-152M	4.0-	1.500E+05	7.52 m 0.02	β-:100.00	4	9.159E+05	1.476E+06		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2100	61-Pm-152N	8.0-	3.200E+05	14.4 m	0.08	β^- :100.00	4	7.284E+05	2.161E+06		UKPADD64
2101	61-Pm-153	2.5-		5.25 m	0.01	β^- :100.00	4	6.858E+05	7.339E+04		ENSDF
2102	61-Pm-154	?		1.73 m	0.10	β^- :100.00	0	1.321E+06	1.321E+06		NUBASE
2103	61-Pm-154M	?	5.000E+04	2.68 m	0.04	β^- :100.00	0	1.337E+06	1.337E+06		NUBASE
2104	61-Pm-155	2.5-		41.5 s	0.48	β^- :100.00	4	1.265E+06	1.233E+05		ENSDF
2105	61-Pm-156	4.0-		26.7 s	0.37	β^- :100.00	0	1.717E+06	1.717E+06		NUBASE
2106	61-Pm-157	2.5-		10.56 s	0.95	β^- :100.00	0	1.453E+06	1.453E+06		NUBASE
2107	61-Pm-158	?		4.8 s	10.42	β^- :100.00	0	2.040E+06	2.040E+06		NUBASE
2108	61-Pm-159	2.5-		3 s	20	β^- :99.98; β^- ,n:0.02	3	1.782E+06	1.160E+06	2.156E+01	UKPADD64
2109	61-Pm-160	1.0-		2 s	20	β^- :99.73; β^- ,n:0.27	3	1.969E+06	2.500E+06	5.530E+02	UKPADD64
2110	61-Pm-161	2.5-		0.7 s	100	β^- :100.00	0	2.183E+06	2.183E+06		NUBASE
2111	61-Pm-162	?		0.5 s	100	β^- :100.00	0	2.813E+06	2.813E+06		NUBASE
2112	61-Pm-163	2.5-		0.2 s	100	β^- :100.00	0	2.583E+06	2.583E+06		NUBASE
2113	62-Sm-128	0.0+		0.5 s	100	β^+ :100.00	0	3.000E+06	3.000E+06		NUBASE
2114	62-Sm-129	2.5+		0.55 s	18.18	β^+ :100.00	0	3.567E+06	3.567E+06		NUBASE
2115	62-Sm-130	0.0+		1 s	100	β^+ :100.00	0	2.630E+06	2.630E+06		NUBASE
2116	62-Sm-131	2.5+		1.2 s	16.67	β^+ :100.00	0	3.180E+06	3.180E+06		NUBASE
2117	62-Sm-132	0.0+		4 s	7.50	β^+ :100.00	0	2.153E+06	2.153E+06		NUBASE
2118	62-Sm-133	2.5+		2.9 s	5.86	β^+ :100.00	0	2.760E+06	2.760E+06		NUBASE
2119	62-Sm-134	0.0+		10 s	10	β^+ :100.00	4	1.548E+06	1.056E+06		ENSDF
2120	62-Sm-135	3.5+		10.3 s	4.85	β^+ :49.99; β^+_m :49.99; β^+ ,p:0.02	0	2.365E+06	2.365E+06	2.749E+02	NUBASE
2121	62-Sm-135M	?		2.4 s	37.50	β^+ :100.00	0	2.373E+06	2.373E+06		NUBASE
2122	62-Sm-136	0.0+		47 s	4.26	β^+ :100.00	4	1.012E+06	9.117E+05		ENSDF
2123	62-Sm-137	4.5-		45 s	2.22	β^+_m :100.00	0	1.954E+06	1.954E+06		NUBASE
2124	62-Sm-137M	0.5+	1.800E+05	20 s	100	β^+ :100.00	0	2.074E+06	2.074E+06		NUBASE
2125	62-Sm-138	0.0+		3.1 m	0.11	β^+_m :100.00	0	1.137E+06	1.137E+06		NUBASE
2126	62-Sm-139	0.5+		2.57 m	0.06	β^+ :100.00	4	1.091E+06	1.459E+06		ENSDF
2127	62-Sm-139M	5.5-	4.574E+05	10.7 s	5.61	IT:93.70; β^+_m :6.30	0	1.131E+05	5.417E+05		NUBASE
2128	62-Sm-140	0.0+		14.82 m	0.01	β^+ :100.00	0	9.180E+05	9.180E+05		NUBASE
2129	62-Sm-141	0.5+		10.2 m	0.03	β^+ :100.00	4	6.857E+05	1.385E+06		ENSDF
2130	62-Sm-141M	5.5-	1.760E+05	22.6 m	0.01	β^+ :99.69; IT:0.31	0	1.582E+06	1.582E+06		NUBASE
2131	62-Sm-142	0.0+		1.208 h	~	β^+ :100.00	4	3.266E+04	8.928E+04		ENSDF
2132	62-Sm-143	1.5+		8.75 m	0.02	β^+ :100.00	4	4.777E+05	5.127E+05		ENSDF
2133	62-Sm-143M	5.5-	7.540E+05	1.1 m	0.05	IT:99.76; β^+ :0.24	0	3.358E+03	7.555E+05		NUBASE
2134	62-Sm-143N	11.5-	2.794E+06	0.03 s	10	IT _m :100.00	0		2.040E+06		NUBASE
2135	62-Sm-144	0.0+									NUBASE
2136	62-Sm-145	3.5-		340 d	~	β^+ :100.00	4	2.950E+04	6.299E+04		UKPADD64
2137	62-Sm-146	0.0+		1E+08 y	~	α :100.00	1			2.571E+06	UKPADD64
2138	62-Sm-147	3.5-		1.06E+11 y	~	α :100.00	1			2.311E+06	ENSDF
2139	62-Sm-148	0.0+		8E+15 y	~	α :100.00	1			1.986E+06	ENSDF
2140	62-Sm-149	3.5-		2E+15 y	~	α :100.00	1			1.870E+06	ENSDF
2141	62-Sm-150	0.0+									NUBASE
2142	62-Sm-151	2.5-		90.002 y	~	β^- :100.00	4	1.987E+04	1.433E+01		UKPADD64
2143	62-Sm-152	0.0+									NUBASE
2144	62-Sm-153	1.5+		1.928 d	~	β^- :100.00	4	2.675E+05	6.233E+04		LNHB

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2189	63-Eu-154	3.0-		8.593 y ~	β^- :99.98; β^+ :0.02	5	2.745E+05	1.245E+06		UKPADD64
2190	63-Eu-154M	8.0-	1.570E+05	46.4 m 0.02	IT:100.00	3	8.250E+04	7.436E+04		UKPADD64
2191	63-Eu-155	2.5+		4.753 y ~	β^- :100.00	4	6.296E+04	6.129E+04		LNHB
2192	63-Eu-156	0.0+		15.19 d ~	β^- :100.00	4	4.541E+05	1.230E+06		ENSDF
2193	63-Eu-157	2.5+		15.18 h ~	β^- :100.00	4	3.928E+05	2.899E+05		ENSDF
2194	63-Eu-158	1.0-		45.9 m 0.01	β^- :100.00	4	8.844E+05	1.271E+06		ENSDF
2195	63-Eu-159	2.5+		18.1 m 0.01	β^- :100.00	4	9.001E+05	2.875E+05		ENSDF
2196	63-Eu-160	1.0-		38 s 10.53	β^- :100.00	0	1.526E+06	1.526E+06		NUBASE
2197	63-Eu-161	2.5+		26 s 11.54	β^- :100.00	0	1.244E+06	1.244E+06		NUBASE
2198	63-Eu-162	?		10.6 s 9.43	β^- :100.00	0	1.879E+06	1.879E+06		NUBASE
2199	63-Eu-163	2.5+		6 s 100	β^- :100.00	0	1.620E+06	1.620E+06		NUBASE
2200	63-Eu-164	?		2 s 100	β^- :100.00	0	2.217E+06	2.217E+06		NUBASE
2201	63-Eu-165	2.5+		1 s 100	β^- :100.00	0	1.970E+06	1.970E+06		NUBASE
2202	63-Eu-166	?		0.4 s 100	β^- :100.00	0	2.600E+06	2.600E+06		NUBASE
2203	63-Eu-167	2.5+		0.2 s 100	β^- :100.00	0	2.370E+06	2.370E+06		NUBASE
2204	64-Gd-134	0.0+		0.4 s 100	β^+ :100.00	0	2.753E+06	2.753E+06		NUBASE
2205	64-Gd-135	1.5-		1.1 s 18.18	β^+ :98.00; β^+ ,p:2.00	0	3.320E+06	3.320E+06	5.020E+04	NUBASE
2206	64-Gd-136	0.0+		1 s 50	β^+ :100.00	0	2.403E+06	2.403E+06		NUBASE
2207	64-Gd-137	3.5+		2.2 s 9.09	β^+ :100.00	0	2.937E+06	2.937E+06		NUBASE
2208	64-Gd-138	0.0+		4.7 s 19.15	β^+ :100.00	0	1.990E+06	1.990E+06		NUBASE
2209	64-Gd-139	4.5-		5.7 s 7.02	β^+ :100.00	0	2.623E+06	2.623E+06		NUBASE
2210	64-Gd-139M	0.5+	2.500E+05	4.8 s 18.75	β^+ :100.00	0	2.706E+06	2.706E+06		NUBASE
2211	64-Gd-140	0.0+		15.8 s 2.53	β^+ :100.00	0	1.736E+06	1.736E+06		NUBASE
2212	64-Gd-141	0.5+		14 s 28.57	β^+ :100.00	4	2.365E+06	1.314E+06		ENSDF
2213	64-Gd-141M	5.5-	3.778E+05	24.5 s 2.04	β^+ :89.00; IT:11.00	0	2.072E+06	2.114E+06		NUBASE
2214	64-Gd-142	0.0+		1.17 m 0.01	β^+ :100.00	3	3.547E+03	4.850E+05		ENSDF
2215	64-Gd-143	0.5+		39 s 5.13	β^+ :100.00	4	1.812E+06	1.221E+06		ENSDF
2216	64-Gd-143M	5.5-	1.526E+05	1.833 m 0.02	β^+ :100.00	4	1.251E+06	2.094E+06		ENSDF
2217	64-Gd-144	0.0+		4.47 m 0.02	β^+ :100.00	0	1.287E+06	1.287E+06		NUBASE
2218	64-Gd-145	0.5+		23 m 0.03	β^+ :100.00	4	3.441E+05	2.428E+06		ENSDF
2219	64-Gd-145M	5.5-	7.491E+05	1.417 m 0.06	IT:94.30; β^+ :5.70	0	1.106E+05	8.170E+05		NUBASE
2220	64-Gd-146	0.0+		48.27 d ~	β^+ :100.00	4	1.217E+05	2.544E+05		ENSDF
2221	64-Gd-147	3.5-		1.586 d ~	β^+ :100.00	0	7.290E+05	7.290E+05		NUBASE
2222	64-Gd-148	0.0+		74.602 y ~	α :100.00	0			3.271E+06	NUBASE
2223	64-Gd-149	3.5-		9.28 d ~	β^+ :100.00	4	6.485E+04	5.290E+05		ENSDF
2224	64-Gd-150	0.0+		1.82E+06 y ~	α :100.00	1			2.797E+06	UKPADD64
2225	64-Gd-151	3.5-		124 d ~	β^+ :100.00; α :~	5	3.883E+04	7.040E+04	2.671E-02	UKPADD64
2226	64-Gd-152	0.0+		1.08E+14 y ~	α :100.00	1			2.205E+06	ENSDF
2227	64-Gd-153	1.5-		240.4 d ~	β^+ :100.00	4	3.983E+04	1.055E+05		LNHB
2228	64-Gd-154	0.0+								NUBASE
2229	64-Gd-155	1.5-								NUBASE
2230	64-Gd-155M	5.5-	1.210E+05	0.032 s 0.94	IT:100.00	0		1.210E+05		NUBASE
2231	64-Gd-156	0.0+								NUBASE
2232	64-Gd-157	1.5-								NUBASE
2233	64-Gd-158	0.0+								NUBASE
2234	64-Gd-159	1.5-		18.479 h ~	β^- :100.00	4	3.086E+05	5.669E+04		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2235	64-Gd-160	0.0+		1.3E+17 y ~	2 β^- :100.00	0	1.730E+06			NUBASE
2236	64-Gd-161	2.5-		3.66 m 0.02	β^- :100.00	4	5.861E+05	3.927E+05		ENSDF
2237	64-Gd-162	0.0+		8.4 m 0.04	β^- :100.00	4	3.396E+05	4.168E+05		ENSDF
2238	64-Gd-163	3.5+		1.133 m 0.07	β^- :100.00	0	1.037E+06	1.037E+06		NUBASE
2239	64-Gd-164	0.0+		45 s 6.67	β^- :100.00	0	7.767E+05	7.767E+05		NUBASE
2240	64-Gd-165	0.5-		10.3 s 15.53	β^- :100.00	0	1.397E+06	1.397E+06		NUBASE
2241	64-Gd-166	0.0+		4.8 s 20.83	β^- :100.00	0	1.120E+06	1.120E+06		NUBASE
2242	64-Gd-167	2.5-		3 s 100	β^- :100.00	0	1.713E+06	1.713E+06		NUBASE
2243	64-Gd-168	0.0+		0.3 s 100	β^- :100.00	0	1.467E+06	1.467E+06		NUBASE
2244	64-Gd-169	3.5-		1 s 100	β^- :100.00	0	2.067E+06	2.067E+06		NUBASE
2245	65-Tb-136	?		0.2 s 100	β^+ :100.00	0	4.360E+06	4.360E+06		NUBASE
2246	65-Tb-137	5.5-		0.6 s 100	p:50.00; β^+ :50.00	0	1.702E+06	1.702E+06	3.805E+05	NUBASE
2247	65-Tb-138	?		0.8 s 100	β^+ :100.00	0	4.050E+06	4.050E+06		NUBASE
2248	65-Tb-139	5.5-		1.6 s 12.50	β^+ :100.00	0	3.120E+06	3.120E+06		NUBASE
2249	65-Tb-140	?		2.4 s 8.33	β^+ :99.74; β^+ ,p:0.26	0	3.762E+06	3.762E+06	4.959E+03	NUBASE
2250	65-Tb-141	2.5-		3.5 s 5.71	β^+ :50.00; β^+ _m :50.00	0	2.832E+06	2.832E+06		NUBASE
2251	65-Tb-141M	5.5-		7.9 s 7.59	β^+ _m :100.00	0	2.769E+06	2.769E+06		NUBASE
2252	65-Tb-142	1.0+		0.597 s 2.85	β^+ :100.00	3	1.840E+03	2.684E+05		ENSDF
2253	65-Tb-142M	5.0-	2.802E+05	0.303 s 5.61	IT:99.50; β^+ :0.50	0	1.697E+04	2.958E+05		NUBASE
2254	65-Tb-143	5.5-		12 s 8.33	β^+ _m :100.00	0	2.549E+06	2.549E+06		NUBASE
2255	65-Tb-143M	2.5+		21 s 100	β^+ :50.00; β^+ _m :50.00	0	2.575E+06	2.575E+06		NUBASE
2256	65-Tb-144	1.0+		1 s 100	β^+ :100.00	1		2.877E+05		ENSDF
2257	65-Tb-144M	6.0-	3.969E+05	4.25 s 3.53	IT:66.00; β^+ :34.00	0	1.109E+06	1.371E+06		NUBASE
2258	65-Tb-145	1.5+		20 m 1.67	β^+ :100.00	0	2.349E+06	2.349E+06		NUBASE
2259	65-Tb-145M	5.5-		30.9 s 2.27	β^+ :50.34; β^+ _m :49.66	0	2.225E+06	2.225E+06		NUBASE
2260	65-Tb-146	1.0+		8 s 50	β^+ :100.00	0	2.774E+06	2.774E+06		NUBASE
2261	65-Tb-146M	5.0-	1.500E+05	24.1 s 2.07	β^+ :100.00	0	2.824E+06	2.824E+06		NUBASE
2262	65-Tb-146N	10.0+	9.300E+05	1.18E-03 s 1.69	IT _m :100.00	0		7.800E+05		NUBASE
2263	65-Tb-147	0.5+		1.7 h ~	β^+ :100.00	4	2.578E+05	1.917E+06		ENSDF
2264	65-Tb-147M	5.5-	5.060E+04	1.83 m 0.05	β^+ :100.00	1		1.566E+06		ENSDF
2265	65-Tb-148	2.0-		1 h ~	β^+ :100.00	4	8.397E+05	2.186E+06		ENSDF
2266	65-Tb-148M	9.0+	9.010E+04	2.2 m 0.04	β^+ :100.00	0	1.942E+06	1.942E+06		NUBASE
2267	65-Tb-149	0.5+		4.118 h ~	α :16.70; β^+ :83.30	5	8.352E+04	1.359E+06	6.810E+05	ENSDF
2268	65-Tb-149M	5.5-	4.000E+04	4.16 m 0.02	β^+ :99.98; α :0.02	5	1.731E+05	1.069E+06	8.798E+02	ENSDF
2269	65-Tb-150	2.0-		3.48 h ~	β^+ :99.95; α :0.05	0	1.552E+06	1.552E+06	1.793E+03	NUBASE
2270	65-Tb-150M	9.0+	4.500E+05	5.8 m 0.06	β^+ :100.00	0	1.703E+06	1.703E+06		NUBASE
2271	65-Tb-151	0.5+		17.609 h ~	α :0.01; β^+ :100.00	5	7.595E+04	9.881E+05	3.242E+02	ENSDF
2272	65-Tb-151M	5.5-	9.954E+04	25 s 12	IT:93.80; β^+ :6.20	0	5.507E+04	1.484E+05		NUBASE
2273	65-Tb-152	2.0-		17.5 h ~	β^+ :100.00	4	2.107E+05	1.391E+06		ENSDF
2274	65-Tb-152M	8.0+	5.017E+05	4.2 m 0.04	IT:78.80; β^+ :21.20	0	3.177E+05	7.131E+05		NUBASE
2275	65-Tb-153	2.5+		2.34 d ~	β^+ :100.00	4	4.227E+04	3.216E+05		ENSDF
2276	65-Tb-154	0.0+		21.5 h ~	β^+ :99.90; β^- :0.10	0	1.183E+06	1.183E+06		NUBASE
2277	65-Tb-154M	3.0-	1.200E+04	9.4 h ~	β^+ :78.12; IT:21.78; β^- :0.10	0	9.285E+05	9.311E+05		NUBASE
2278	65-Tb-154N	7.0-	2.000E+05	22.7 h ~	β^+ :98.20; IT _m :1.80	0	1.229E+06	1.232E+06		NUBASE
2279	65-Tb-155	1.5+		5.32 d ~	β^+ :100.00	4	3.834E+04	1.766E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2280	65-Tb-156	3.0-		5.17 d ~	β^+ :100.00	4	8.460E+04	1.935E+06		UKPADD64
2281	65-Tb-156M	7.0-	6.000E+04	1.017 d ~	IT:100.00	3	2.206E+04	3.759E+04		UKPADD64
2282	65-Tb-156N	0.0+	8.840E+04	5.1 h ~	β^+ :0.19; IT:99.81	4	8.406E+04	4.743E+03		UKPADD64
2283	65-Tb-157	1.5+		99.002 y ~	β^+ :100.00	4	5.700E+03	1.039E+04		UKPADD64
2284	65-Tb-158	3.0-		180.004 y ~	β^+ :83.40; β^- :16.60	0	3.908E+05	3.908E+05		NUBASE
2285	65-Tb-158M	0.0-	1.103E+05	10.7 s 1.59	IT:99.39; β^- :0.60; β^+ :0.01	0	2.135E+03	1.118E+05		NUBASE
2286	65-Tb-159	1.5+								NUBASE
2287	65-Tb-160	3.0-		72.3 d ~	β^- :100.00	4	2.572E+05	1.126E+06		ENSDF
2288	65-Tb-161	1.5+		6.89 d ~	β^- :100.00	4	2.007E+05	3.376E+04		UKPADD64
2289	65-Tb-162	1.0-		7.6 m 0.03	β^- :100.00	4	5.396E+05	1.106E+06		ENSDF
2290	65-Tb-163	1.5+		19.5 m 0.03	β^- :100.00	4	3.622E+05	7.859E+05		ENSDF
2291	65-Tb-164	5.0+		3 m 0.06	β^- :100.00	0	1.298E+06	1.298E+06		NUBASE
2292	65-Tb-165	1.5+		2.11 m 0.08	β^- :100.00	2	9.116E+05	6.418E+05		ENSDF
2293	65-Tb-166	?		25.6 s 8.59	β^- :100.00	0	1.610E+06	1.610E+06		NUBASE
2294	65-Tb-167	1.5+		19 s 15.79	β^- :100.00	0	1.367E+06	1.367E+06		NUBASE
2295	65-Tb-168	4.0-		8.2 s 15.85	β^- :100.00	0	2.020E+06	2.020E+06		NUBASE
2296	65-Tb-169	1.5+		2 s 100	β^- :100.00	0	1.833E+06	1.833E+06		NUBASE
2297	65-Tb-170	?		3 s 100	β^- :100.00	0	2.440E+06	2.440E+06		NUBASE
2298	65-Tb-171	1.5+		0.5 s 100	β^- :100.00	0	2.203E+06	2.203E+06		NUBASE
2299	66-Dy-138	0.0+		0.2 s 100	β^+ :100.00	0	2.897E+06	2.897E+06		NUBASE
2300	66-Dy-139	3.5+		0.6 s 33.33	β^+ :100.00	0	3.493E+06	3.493E+06		NUBASE
2301	66-Dy-140	0.0+		0.7 s 57.14	β^+ :100.00	0	2.547E+06	2.547E+06		NUBASE
2302	66-Dy-141	4.5-		0.9 s 22.22	β^+ :50.00; β^+ _m :50.00	0	3.073E+06	3.073E+06		NUBASE
2303	66-Dy-142	0.0+		2.3 s 13.04	β^+ :99.94; β^+ ,p:0.03; β^+ ,p _m :0.03	0	2.366E+06	2.366E+06	8.679E+02	NUBASE
2304	66-Dy-143	0.5+		5.6 s 17.86	β^+ _m :100.00	0	2.703E+06	2.703E+06		NUBASE
2305	66-Dy-143M	5.5-	3.107E+05	3 s 10	β^+ :100.00	0	2.807E+06	2.807E+06		NUBASE
2306	66-Dy-144	0.0+		9.1 s 4.40	β^+ :100.00	1		7.504E+04		ENSDF
2307	66-Dy-145	0.5+		9.5 s 10.53	β^+ :100.00	0	2.530E+06	2.530E+06		NUBASE
2308	66-Dy-145M	5.5-	1.182E+05	14.1 s 4.96	β^+ :35.40; β^+ _m :64.60	0	2.569E+06	2.569E+06		NUBASE
2309	66-Dy-146	0.0+		29 s 10.34	β^+ :100.00	3	1.333E+04	1.180E+06		ENSDF
2310	66-Dy-146M	10.0+	2.936E+06	0.15 s 13.33	IT:100.00	0		2.936E+06		NUBASE
2311	66-Dy-147	0.5+		40 s 25	β^+ :99.95; β^+ ,p:0.05	0	2.187E+06	2.187E+06	5.770E+02	NUBASE
2312	66-Dy-147M	5.5-	7.505E+05	55 s 1.82	β^+ _m :65.00; IT:35.00	0	1.574E+06	1.837E+06		NUBASE
2313	66-Dy-148	0.0+		3.3 m 0.10	β^+ :100.00	4	2.571E+04	7.175E+05		ENSDF
2314	66-Dy-149	3.5-		4.2 m 0.06	β^+ :100.00	4	1.031E+05	1.613E+06		ENSDF
2315	66-Dy-149M	13.5-	2.661E+06	0.49 s 3.06	IT:99.30; β^+ _m :0.70	0	1.495E+04	2.657E+06		NUBASE
2316	66-Dy-150	0.0+		7.17 m 0.01	β^+ :64.00; α :36.00	0	3.827E+05	3.827E+05	1.566E+06	NUBASE
2317	66-Dy-151	3.5-		17.9 m 0.03	β^+ :64.57; β^+ _m :29.83; α :5.60	0	8.935E+05	8.935E+05	2.340E+05	NUBASE
2318	66-Dy-152	0.0+		2.38 h ~	α :0.10; β^+ :99.90	5	1.030E+04	2.865E+05	3.628E+03	ENSDF
2319	66-Dy-153	3.5-		6.4 h ~	α :0.01; β^+ :100.00	5	8.094E+04	7.089E+05	3.256E+02	ENSDF
2320	66-Dy-154	0.0+		3E+06 y ~	α :100.00	1		2.947E+06		ENSDF
2321	66-Dy-155	1.5-		9.9 h ~	β^+ :100.00	4	2.362E+04	6.054E+05		ENSDF
2322	66-Dy-156	0.0+		1E+18 y ~	α :50.00; $2\beta^+$:50.00	0	1.006E+06		8.796E+05	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2323	66-Dy-157	1.5-		8.14 h ~	β^+ :100.00	4	1.329E+04	3.504E+05		UKPADD64
2324	66-Dy-157M	5.5-	1.995E+05	0.022 s 7.41	IT:100.00	3	9.443E+04	1.012E+05		ENSDF
2325	66-Dy-158	0.0+								NUBASE
2326	66-Dy-159	1.5-		144.4 d ~	β^+ :100.00	4	1.282E+04	4.551E+04		UKPADD64
2327	66-Dy-160	0.0+								NUBASE
2328	66-Dy-161	2.5+								NUBASE
2329	66-Dy-162	0.0+								NUBASE
2330	66-Dy-163	2.5-								NUBASE
2331	66-Dy-164	0.0+								NUBASE
2332	66-Dy-165	3.5+		2.334 h ~	β^- :100.00	4	4.480E+05	2.628E+04		ENSDF
2333	66-Dy-165M	0.5-	1.082E+05	1.257 m 0.01	IT:97.76; β^- :2.24	0	1.042E+04	1.162E+05		NUBASE
2334	66-Dy-166	0.0+		3.4 d ~	β^- :100.00	0	1.623E+05	1.623E+05		NUBASE
2335	66-Dy-167	0.5-		6.2 m 0.02	β^- :100.00	4	7.063E+05	5.237E+05		ENSDF
2336	66-Dy-168	0.0+		8.7 m 0.06	β^- :100.00	0	5.033E+05	5.033E+05		NUBASE
2337	66-Dy-169	2.5-		39 s 20.51	β^- :100.00	0	1.068E+06	1.068E+06		NUBASE
2338	66-Dy-170	0.0+		30 s 100	β_m^- :100.00	0	8.267E+05	8.267E+05		NUBASE
2339	66-Dy-171	3.5-		6 s 100	β^- :100.00	0	1.470E+06	1.470E+06		NUBASE
2340	66-Dy-172	0.0+		3 s 100	β^- :100.00	0	1.223E+06	1.223E+06		NUBASE
2341	66-Dy-173	4.5+		2 s 100	β^- :100.00	0	1.773E+06	1.773E+06		NUBASE
2342	67-Ho-140	8.0+		6E-03 s 50	p:99.00; β^+ :1.00	0	4.510E+04	4.510E+04	1.080E+06	NUBASE
2343	67-Ho-141	3.5-		4.1E-03 s 7.32	p:100.00	0			8.429E+03	ENSDF
2344	67-Ho-142	?		0.4 s 25	β^+ :100.00	0	4.163E+06	4.163E+06		NUBASE
2345	67-Ho-143	5.5-		0.3 s 100	β_m^+ :100.00	0	3.243E+06	3.243E+06		NUBASE
2346	67-Ho-144	?		0.7 s 14.29	β^+ :100.00	0	3.793E+06	3.793E+06		NUBASE
2347	67-Ho-145	5.5-		2.4 s 4.17	β_m^+ :100.00	0	2.997E+06	2.997E+06		NUBASE
2348	67-Ho-145M	2.5+	1.000E+05	0.1 s 100	β^+ :50.00; IT:50.00	0	1.535E+06	1.585E+06		NUBASE
2349	67-Ho-146	10.0+		3.6 s 8.33	β_m^+ :100.00	0	2.683E+06	2.683E+06		NUBASE
2350	67-Ho-147	5.5-		5.8 s 6.90	β_m^+ :100.00	0	2.534E+06	2.534E+06		NUBASE
2351	67-Ho-148	1.0+		2.2 s 50	β^+ :100.00	4	3.781E+06	1.104E+06		ENSDF
2352	67-Ho-148M	10.0+	6.944E+05	2.35E-03 s 1.70	IT:100.00	3	4.226E+04	6.484E+05		ENSDF
2353	67-Ho-148N	10.0+	6.900E+05	2.35E-03 s 1.70	IT _m :100.00	0		2.900E+05		NUBASE
2354	67-Ho-149	5.5-		21.1 s 0.95	β^+ :100.00	0	2.009E+06	2.009E+06		NUBASE
2355	67-Ho-149M	0.5+	4.880E+04	56 s 5.36	β^+ :100.00	0	2.025E+06	2.025E+06		NUBASE
2356	67-Ho-150	2.0-		1.28 m 0.04	β^+ :100.00	0	2.456E+06	2.456E+06		NUBASE
2357	67-Ho-150M	9.0+		23.3 s 1.29	β^+ :100.00	0	2.456E+06	2.456E+06		NUBASE
2358	67-Ho-151	5.5-		35.2 s 0.28	β^+ :78.00; α_m :22.00	0	1.333E+06	1.333E+06	1.022E+06	NUBASE
2359	67-Ho-151M	0.5+	4.100E+04	47.2 s 2.12	α :77.00; β^+ :23.00	0	3.962E+05	3.962E+05	3.647E+06	NUBASE
2360	67-Ho-152	2.0-		2.697 m ~	β^+ :88.00; α :12.00	0	1.911E+06	1.911E+06	5.409E+05	NUBASE
2361	67-Ho-152M	9.0+	1.600E+05	50 s 0.80	β^+ :89.20; α_m :10.80	0	1.985E+06	1.985E+06	4.943E+05	NUBASE
2362	67-Ho-153	5.5-		2.01 m 0.02	α :0.05; β^+ :99.95	5	5.271E+05	9.147E+05	1.994E+03	ENSDF
2363	67-Ho-153M	0.5+	6.870E+04	9.3 m 0.09	β^+ :99.82; α :0.18	0	1.397E+06	1.397E+06	7.417E+03	NUBASE
2364	67-Ho-154	2.0-		11.76 m 0.03	β^+ :99.98; α :0.02	0	1.918E+06	1.918E+06	7.680E+02	NUBASE
2365	67-Ho-154M	8.0+	2.400E+05	3.1 m 0.08	β^+ :100.00; α_m :~	0	1.998E+06	1.998E+06	3.832E+01	NUBASE
2366	67-Ho-155	2.5+		48 m 0.07	β^+ :100.00	4	2.084E+05	4.455E+05		ENSDF
2367	67-Ho-156	4.0-		56 m 0.03	β^+ :100.00	0	1.727E+06	1.727E+06		NUBASE
2368	67-Ho-156M	1.0-	5.240E+04	9.5 s 15.79	IT:50.00; β^+ :50.00	0	8.721E+05	8.983E+05		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2369	67-Ho-156N	9.0+	1.000E+05	7.8 m 0.06	β^+ :75.00; IT:25.00	0	1.320E+06	1.345E+06		NUBASE
2370	67-Ho-157	3.5-		12.6 m 0.03	β^+ :50.00; β^+ _m :50.00	0	8.331E+05	8.331E+05		NUBASE
2371	67-Ho-158	5.0+		11.3 m 0.06	β^+ :100.00	0	1.407E+06	1.407E+06		NUBASE
2372	67-Ho-158M	2.0-	6.720E+04	28 m 0.12	IT:81.00; β^+ :19.00	0	2.716E+05	3.260E+05		NUBASE
2373	67-Ho-158N	9.0+	1.800E+05	21.3 m 0.18	β^+ :93.00; IT:7.00	0	1.364E+06	1.377E+06		NUBASE
2374	67-Ho-159	3.5-		33.05 m 0.01	β^+ :100.00	4	5.117E+04	3.806E+05		ENSDF
2375	67-Ho-159M	0.5+	2.059E+05	8.3 s 0.96	IT:100.00	3	1.036E+05	1.000E+05		ENSDF
2376	67-Ho-160	5.0+		25.3 m 0.05	β^+ :100.00	4	7.034E+04	1.713E+06		UKPADD64
2377	67-Ho-160M	2.0-	5.998E+04	5 h ~	IT:65.00; β^+ :35.00	4	8.167E+04	6.498E+05		UKPADD64
2378	67-Ho-160N	9.0+	2.000E+05	2.9 s 6.90	IT:100.00	3	9.388E+04	1.057E+05		UKPADD64
2379	67-Ho-161	3.5-		2.48 h ~	β^+ :100.00	4	3.344E+04	5.817E+04		UKPADD64
2380	67-Ho-161M	0.5+	2.111E+05	6.77 s 0.89	IT:100.00	3	1.072E+05	1.037E+05		UKPADD64
2381	67-Ho-162	1.0+		15 m 0.11	β^+ :100.00	4	5.676E+04	1.641E+05		ENSDF
2382	67-Ho-162M	6.0-	1.060E+05	1.117 h ~	IT:62.00; β^+ :38.00	0	2.845E+05	3.502E+05		NUBASE
2383	67-Ho-163	3.5-		4570.09 y ~	β^+ :100.00	1	2.650E+03	1.053E-03		UKPADD64
2384	67-Ho-163M	0.5+	2.979E+05	1.1 s 6.36	IT:100.00	3	6.124E+04	2.365E+05		UKPADD64
2385	67-Ho-164	1.0+		28.6 m 0.03	β^- :51.70; β^+ :48.30	5	1.843E+05	2.816E+04		UKPADD64
2386	67-Ho-164M	6.0-	1.400E+05	37.6 m 0.02	IT:100.00	3	9.190E+04	4.803E+04		UKPADD64
2387	67-Ho-165	3.5-								NUBASE
2388	67-Ho-166	0.0-		1.117 d ~	β^- :100.00	4	6.947E+05	3.021E+04		ENSDF
2389	67-Ho-166M	7.0+	5.980E+03	1200 y ~	β^- :100.00	4	1.411E+05	1.627E+06		LNHB
2390	67-Ho-167	3.5-		3.1 h ~	β^- :88.05; β^- _m :11.95	4	2.269E+05	3.630E+05		ENSDF
2391	67-Ho-168	3.0+		2.99 m 0.04	β^- :100.00	4	8.009E+05	8.633E+05		ENSDF
2392	67-Ho-168M	6.0+	5.900E+04	2.2 m 0.05	IT:99.50; β^- :0.50	0	4.976E+03	6.368E+04		NUBASE
2393	67-Ho-169	3.5-		4.7 m 0.04	β^- :100.00	0	7.086E+05	7.086E+05		NUBASE
2394	67-Ho-170	6.0+		2.78 m 0.08	β^- :100.00	4	8.361E+05	1.835E+06		UKPADD64
2395	67-Ho-170M	1.0+	1.200E+05	43 s 4.65	β^- :100.00	4	1.365E+06	6.794E+05		UKPADD64
2396	67-Ho-171	3.5-		53 s 3.77	β^- :100.00	0	1.068E+06	1.068E+06		NUBASE
2397	67-Ho-172	?		25 s 12	β^- :100.00	0	1.696E+06	1.696E+06		NUBASE
2398	67-Ho-173	3.5-		10 s 100	β^- :100.00	0	1.517E+06	1.517E+06		NUBASE
2399	67-Ho-174	?		8 s 100	β^- :100.00	0	2.150E+06	2.150E+06		NUBASE
2400	67-Ho-175	3.5-		5 s 100	β^- :100.00	0	1.950E+06	1.950E+06		NUBASE
2401	68-Er-143	4.5-		0.2 s 100	β^+ :100.00	0	3.643E+06	3.643E+06		NUBASE
2402	68-Er-144	0.0+		0.4 s 50	β^+ :100.00	0	2.763E+06	2.763E+06		NUBASE
2403	68-Er-145	0.5+		0.9 s 33.33	β^+ _m :100.00	0	3.130E+06	3.130E+06		NUBASE
2404	68-Er-146	0.0+		1.7 s 35.29	β^+ :100.00	0	2.287E+06	2.287E+06		NUBASE
2405	68-Er-147	0.5+		2.5 s 100	β^+ :100.00	0	2.929E+06	2.929E+06		NUBASE
2406	68-Er-147M	5.5-	1.000E+05	2.5 s 8	β^+ :100.00	0	2.962E+06	2.962E+06		NUBASE
2407	68-Er-148	0.0+		4.6 s 4.35	β^+ :99.85; β^+ _p :0.07; β^+ _p _m :0.07	0	2.122E+06	2.122E+06	1.828E+03	NUBASE
2408	68-Er-149	0.5+		4 s 50	β^+ _m :93.00; β^+ _p :7.00	0	2.568E+06	2.568E+06	1.195E+05	NUBASE
2409	68-Er-149M	5.5-	7.418E+05	8.9 s 2.25	β^+ :96.32; IT:3.50; β^+ _p :0.18	0	2.793E+06	2.819E+06	3.406E+03	NUBASE
2410	68-Er-150	0.0+		18.5 s 3.78	β^+ :100.00	0	1.372E+06	1.372E+06		NUBASE
2411	68-Er-151	3.5-		23.5 s 5.53	β^+ :100.00	4	8.287E+05	1.660E+06		ENSDF
2412	68-Er-151M	13.5-	2.586E+06	0.58 s 3.45	IT:95.30; β^+ :4.70	0	1.246E+05	2.589E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2413	68-Er-152	0.0+		10.3 s	0.97	α :91.00; β +:10.00	5	1.887E+04	4.111E+04	4.490E+06	ENSDF
2414	68-Er-153	3.5-		37.1 s	0.54	α :53.00; β +:47.00	4	1.329E+03	3.227E+05	2.544E+06	ENSDF
2415	68-Er-154	0.0+		3.73 m	0.04	α :0.47; β +:99.53	5	3.183E+04	7.596E+04	1.959E+04	ENSDF
2416	68-Er-155	3.5-		5.3 m	0.09	β +:99.98; α :0.02	0	1.275E+06	1.275E+06	9.062E+02	NUBASE
2417	68-Er-156	0.0+		19.5 m	0.09	β +:4.59; β + _m :95.41	4	6.980E+04	5.725E+04		ENSDF
2418	68-Er-157	1.5-		18.65 m	0.01	β +:100.00	0	1.136E+06	1.136E+06		NUBASE
2419	68-Er-157M	4.5+	1.554E+05	0.076 s	7.89	IT:100.00	0		1.554E+05		NUBASE
2420	68-Er-158	0.0+		2.29 h	~	β + _m :100.00	0	4.099E+04	8.198E+04		NUBASE
2421	68-Er-159	1.5-		36 m	0.05	β +:76.43; β + _m :23.57	4	6.804E+04	7.412E+05		ENSDF
2422	68-Er-160	0.0+		1.191 d	~	β + _m :100.00	0	1.350E+04	2.700E+04		NUBASE
2423	68-Er-161	1.5-		3.21 h	~	β +:73.40; β + _m :26.60	0	6.459E+05	6.459E+05		NUBASE
2424	68-Er-162	0.0+		1.4E+14 y	~	α :50.00; 2β +:50.00	0	9.219E+05		8.220E+05	NUBASE
2425	68-Er-163	2.5-		1.25 h	~	β +:99.98; β + _m :0.02	4	5.270E+03	4.018E+04		ENSDF
2426	68-Er-164	0.0+									NUBASE
2427	68-Er-165	2.5-		10.36 h	~	β +:100.00	3	5.178E+03	3.783E+04		ENSDF
2428	68-Er-166	0.0+									NUBASE
2429	68-Er-167	3.5+									NUBASE
2430	68-Er-167M	0.5-	2.078E+05	2.269 s	0.26	IT:100.00	0		2.078E+05		NUBASE
2431	68-Er-168	0.0+									NUBASE
2432	68-Er-169	0.5-		9.4 d	~	β -:100.00	4	1.018E+05	1.981E+01		LNHB
2433	68-Er-170	0.0+									NUBASE
2434	68-Er-171	2.5-		7.516 h	~	β -:100.00	4	4.164E+05	3.726E+05		ENSDF
2435	68-Er-172	0.0+		2.054 d	~	β -:100.00	4	1.287E+05	5.157E+05		UKPADD64
2436	68-Er-173	3.5-		1.4 m	0.12	β -:100.00	4	6.975E+05	8.303E+05		ENSDF
2437	68-Er-174	0.0+		3.2 m	0.10	β -:100.00	0	6.400E+05	6.400E+05		NUBASE
2438	68-Er-175	4.5+		1.2 m	0.42	β -:100.00	0	1.223E+06	1.223E+06		NUBASE
2439	68-Er-176	0.0+		20 s	100	β -:100.00	0	9.567E+05	9.567E+05		NUBASE
2440	68-Er-177	0.5-		3 s	100	β -:100.00	0	1.557E+06	1.557E+06		NUBASE
2441	69-Tm-145	5.5-		3.1E-06 s	9.68	p:100.00	0			1.741E+06	NUBASE
2442	69-Tm-146	6.0-		0.24 s	12.50	p:100.00	0			1.121E+06	NUBASE
2443	69-Tm-146M	10.0+	7.100E+04	0.072 s	31.94	p:84.00; β +:16.00	0	7.201E+05	7.201E+05	1.001E+06	NUBASE
2444	69-Tm-147	5.5-		0.58 s	5.17	β + _m :85.00; p:15.00	0	2.998E+06	2.998E+06	1.576E+05	NUBASE
2445	69-Tm-148	10.0+		0.7 s	28.57	β +:100.00	0	4.127E+06	4.127E+06		NUBASE
2446	69-Tm-149	5.5-		0.9 s	22.22	β + _m :99.74; β +,p:0.09; β +,p _m :0.09; β +,p _n :0.09	0	2.983E+06	2.983E+06	4.113E+03	NUBASE
2447	69-Tm-150	1.0+		3 s	100	β +:100.00	0	3.741E+06	3.741E+06		NUBASE
2448	69-Tm-150M	6.0-	1.400E+05	2.2 s	2.73	β +:98.80; β +,p:0.60; β +,p _m :0.60	0	3.766E+06	3.766E+06	2.371E+04	NUBASE
2449	69-Tm-150N	10.0+	8.100E+05	5.2E-03 s	5.77	IT _m :100.00	0		6.700E+05		NUBASE
2450	69-Tm-151	5.5-		4.17 s	2.40	β +:100.00	4	1.557E+06	2.557E+06		ENSDF
2451	69-Tm-151M	0.5+	5.000E+04	6.6 s	21.21	β +:100.00	4	1.425E+06	2.945E+06		ENSDF
2452	69-Tm-152	2.0-		8 s	12.50	β +:100.00	0	2.910E+06	2.910E+06		NUBASE
2453	69-Tm-152M	9.0+	1.000E+05	5.2 s	11.54	β +:100.00	0	2.943E+06	2.943E+06		NUBASE
2454	69-Tm-153	5.5-		1.48 s	0.68	α :91.00; β +:9.00	5	1.583E+05	1.256E+05	4.769E+06	ENSDF
2455	69-Tm-153M	0.5+	4.320E+04	2.5 s	8	α _m :92.00; β +:8.00	0	1.738E+05	1.738E+05	4.823E+06	NUBASE
2456	69-Tm-154	2.0-		8.1 s	3.70	α :54.00; β +:46.00	0	1.255E+06	1.255E+06	2.751E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2457	69-Tm-154M	9.0+	7.000E+04	3.3 s	2.12	$\alpha_m:58.00$; $\beta+:42.00$	0	1.155E+06	1.155E+06	2.995E+06	NUBASE
2458	69-Tm-155	5.5-		21.6 s	0.93	$\beta+:98.10$; $\alpha:1.90$	0	1.825E+06	1.825E+06	8.687E+04	NUBASE
2459	69-Tm-155M	0.5+	4.100E+04	45 s	6.67	$\beta+:92.00$; $\alpha_m:8.00$	0	1.724E+06	1.724E+06	3.658E+05	NUBASE
2460	69-Tm-156	2.0-		1.397 m	0.04	$\beta+:99.94$; $\alpha:0.06$	0	2.456E+06	2.456E+06	2.780E+03	NUBASE
2461	69-Tm-157	0.5+		3.63 m	0.04	$\beta+:100.00$	0	1.570E+06	1.570E+06		NUBASE
2462	69-Tm-158	2.0-		3.98 m	0.03	$\beta+:100.00$	4	1.557E+06	1.555E+06		ENSDF
2463	69-Tm-159	2.5+		9.13 m	0.03	$\beta+:100.00$	0	1.332E+06	1.332E+06		NUBASE
2464	69-Tm-160	1.0-		9.4 m	0.05	$\beta+:100.00$	0	1.919E+06	1.919E+06		NUBASE
2465	69-Tm-160M	5.0+	7.000E+04	1.242 m	0.03	IT:85.00; $\beta+:15.00$	0	2.914E+05	3.509E+05		NUBASE
2466	69-Tm-161	3.5+		30.2 m	0.04	$\beta+:100.00$	0	1.103E+06	1.103E+06		NUBASE
2467	69-Tm-161M	0.5+	7.400E+03	5 m	1.67	$\beta+:50.00$; IT:50.00	0	5.529E+05	5.566E+05		NUBASE
2468	69-Tm-162	1.0-		21.7 m	0.01	$\beta+:100.00$	0	1.620E+06	1.620E+06		NUBASE
2469	69-Tm-162M	5.0+	1.300E+05	24.3 s	7	IT:82.00; $\beta+:18.00$	0	2.993E+05	4.059E+05		NUBASE
2470	69-Tm-163	0.5+		1.81 h	~	$\beta+:100.00$	0	8.130E+05	8.130E+05		NUBASE
2471	69-Tm-164	1.0+		2 m	0.08	$\beta+:100.00$	4	5.440E+05	7.176E+05		ENSDF
2472	69-Tm-164M	6.0-	1.000E+04	5.1 m	0.03	IT:80.00; $\beta+:20.00$	0	2.715E+05	2.795E+05		NUBASE
2473	69-Tm-165	0.5+		1.252 d	~	$\beta+:100.00$	4	5.595E+04	5.464E+05		ENSDF
2474	69-Tm-166	2.0+		7.7 h	~	$\beta+:100.00$	4	8.115E+04	1.956E+06		ENSDF
2475	69-Tm-166M	6.0-	1.220E+05	0.34 s	7.35	IT:100.00	0		1.220E+05		NUBASE
2476	69-Tm-167	0.5+		9.25 d	~	$\beta+:1.70$; $\beta_m:98.30$	0	2.721E+04	5.441E+04		NUBASE
2477	69-Tm-168	3.0+		93.1 d	~	$\beta+:99.99$; $\beta -:0.01$	0	5.596E+05	5.596E+05		NUBASE
2478	69-Tm-169	0.5+									NUBASE
2479	69-Tm-170	1.0-		128.6 d	~	$\beta+:0.13$; $\beta -:99.87$	5	3.275E+05	4.185E+03		ENSDF
2480	69-Tm-171	0.5+		1.92 y	~	$\beta -:100.00$	4	2.541E+04	6.220E+02		ENSDF
2481	69-Tm-172	2.0-		2.65 d	~	$\beta -:100.00$	4	5.279E+05	4.743E+05		ENSDF
2482	69-Tm-173	0.5+		8.24 h	~	$\beta -:100.00$	4	3.097E+05	3.884E+05		ENSDF
2483	69-Tm-174	4.0-		5.4 m	0.03	$\beta -:100.00$	4	5.139E+05	1.779E+06		ENSDF
2484	69-Tm-175	0.5+		15.2 m	0.05	$\beta -:23.00$; $\beta_m:77.00$	0	6.614E+05	6.614E+05		NUBASE
2485	69-Tm-176	4.0+		1.85 m	0.03	$\beta -:50.00$; $\beta_m:50.00$	0	1.200E+06	1.200E+06		NUBASE
2486	69-Tm-177	3.5-		1.5 m	0.11	$\beta_m:100.00$	0	1.063E+06	1.063E+06		NUBASE
2487	69-Tm-178	?		30 s	100	$\beta -:100.00$	0	1.859E+06	1.859E+06		NUBASE
2488	69-Tm-179	0.5+		20 s	100	$\beta -:100.00$	0	1.607E+06	1.607E+06		NUBASE
2489	70-Yb-148	0.0+		0.25 s	60	$\beta+:100.00$	0	2.973E+06	2.973E+06		NUBASE
2490	70-Yb-149	?		0.7 s	28.57	$\beta+:100.00$	0	3.513E+06	3.513E+06		NUBASE
2491	70-Yb-150	0.0+		0.7 s	42.86	$\beta+:100.00$	0	2.627E+06	2.627E+06		NUBASE
2492	70-Yb-151	0.5+		1.6 s	31.25	$\beta_m:100.00$	0	3.050E+06	3.050E+06		NUBASE
2493	70-Yb-151M	5.5-	7.500E+05	1.6 s	6.25	$\beta+:99.60$; IT:0.40	0	3.317E+06	3.320E+06		NUBASE
2494	70-Yb-152	0.0+		3.04 s	1.97	$\beta+:100.00$	4	1.206E+06	1.163E+06		ENSDF
2495	70-Yb-153	3.5-		4.2 s	4.76	$\beta+:25.00$; $\beta_m:25.00$; $\alpha:25.00$; $\alpha_m:25.00$; $\beta+,p:0.01$	0	1.156E+06	1.156E+06	1.943E+06	NUBASE
2496	70-Yb-154	0.0+		0.409 s	0.49	$\alpha:92.60$; $\beta+:7.40$	0	1.109E+05	1.109E+05	5.069E+06	NUBASE
2497	70-Yb-155	3.5-		1.793 s	1.06	$\alpha:89.00$; $\beta+:5.50$; $\beta_m:5.50$	0	2.241E+05	2.241E+05	4.751E+06	NUBASE
2498	70-Yb-156	0.0+		26.1 s	2.68	$\beta+:90.00$; $\alpha:10.00$	0	1.073E+06	1.073E+06	4.811E+05	NUBASE
2499	70-Yb-157	3.5-		38.6 s	2.59	$\beta+:99.50$; $\alpha:0.50$	0	1.747E+06	1.747E+06	2.311E+04	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2500	70-Yb-158	0.0+		1.49 m	0.15	β^+ :100.00; α :~	0	8.960E+05	8.960E+05	8.761E+01	NUBASE
2501	70-Yb-159	2.5-		1.72 m	0.10	β^+ :100.00	0	1.576E+06	1.576E+06		NUBASE
2502	70-Yb-160	0.0+		4.8 m	0.07	β^+ :100.00	4	5.767E+04	2.706E+05		ENSDF
2503	70-Yb-161	1.5-		4.2 m	0.08	β_m^+ :100.00	0	1.349E+06	1.349E+06		NUBASE
2504	70-Yb-162	0.0+		18.87 m	0.02	β^+ :100.00	4	3.152E+04	2.357E+05		ENSDF
2505	70-Yb-163	1.5-		11.05 m	0.04	β^+ :100.00	0	1.144E+06	1.144E+06		NUBASE
2506	70-Yb-164	0.0+		1.263 h	~	β^+ :100.00	4	6.027E+03	5.212E+04		ENSDF
2507	70-Yb-165	2.5-		9.9 m	0.05	β^+ :100.00	0	8.830E+05	8.830E+05		NUBASE
2508	70-Yb-166	0.0+		2.362 d	~	β_m^+ :100.00	0	9.200E+03	1.840E+04		NUBASE
2509	70-Yb-167	2.5-		17.5 m	0.02	β^+ :100.00	0	6.514E+05	6.514E+05		NUBASE
2510	70-Yb-168	0.0+		1.3E+14 y	~	α :50.00; $2\beta^+$:50.00	0	7.108E+05		9.750E+05	NUBASE
2511	70-Yb-169	3.5+		32.018 d	~	β^+ :100.00	4	1.118E+05	3.133E+05		LNHB
2512	70-Yb-169M	0.5-	2.420E+04	46 s	4.35	IT:100.00	0		2.420E+04		NUBASE
2513	70-Yb-170	0.0+									NUBASE
2514	70-Yb-171	0.5-									NUBASE
2515	70-Yb-171M	3.5+	9.528E+04	5.25E-03 s	4.57	IT:100.00	0		9.528E+04		NUBASE
2516	70-Yb-172	0.0+									NUBASE
2517	70-Yb-173	2.5-									NUBASE
2518	70-Yb-174	0.0+									NUBASE
2519	70-Yb-175	3.5-		4.185 d	~	β^- :100.00	4	1.216E+05	7.994E+04		UKPADD64
2520	70-Yb-175M	0.5-	5.149E+05	0.068 s	0.44	IT:100.00	0		5.149E+05		NUBASE
2521	70-Yb-176	0.0+									NUBASE
2522	70-Yb-176M	8.0-	1.050E+06	11.4 s	2.63	IT:90.00; β^- :10.00	0	3.144E+04	9.764E+05		NUBASE
2523	70-Yb-177	4.5+		1.911 h	~	β^- :100.00	4	4.260E+05	1.991E+05		ENSDF
2524	70-Yb-177M	0.5-	3.315E+05	6.41 s	0.31	IT:100.00	3	1.782E+05	1.500E+05		ENSDF
2525	70-Yb-178	0.0+		1.233 h	~	β^- :100.00	0	2.150E+05	2.150E+05		NUBASE
2526	70-Yb-179	0.5-		8 m	0.08	β_m^- :100.00	0	6.839E+05	6.839E+05		NUBASE
2527	70-Yb-180	0.0+		2.4 m	0.35	β_m^- :100.00	0	7.587E+05	7.587E+05		NUBASE
2528	70-Yb-181	1.5-		1 m	1.67	β^- :100.00	0	1.297E+06	1.297E+06		NUBASE
2529	71-Lu-150	?		0.046 s	13.04	p :70.00; β^+ :30.00	0	1.379E+06	1.379E+06	8.897E+05	NUBASE
2530	71-Lu-151	5.5-		0.081 s	2.36	p :63.00; β_m^+ :37.00	0	1.306E+06	1.306E+06	7.818E+05	NUBASE
2531	71-Lu-152	?		0.65 s	10.77	β^+ :85.00; β^+, p :7.50; β^+, p_m :7.50	0	4.028E+06	4.028E+06	3.760E+05	NUBASE
2532	71-Lu-153	5.5-		0.9 s	22.22	α :70.00; β^+ :30.00	0	8.650E+05	8.650E+05	2.244E+06	NUBASE
2533	71-Lu-153M	0.5+	8.000E+04	1 s	100	β^+ :50.00; α :50.00	0	1.455E+06	1.455E+06	1.643E+06	NUBASE
2534	71-Lu-154	2.0-		1 s	100	β^+ :100.00	0	3.455E+06	3.455E+06		NUBASE
2535	71-Lu-154M	9.0+	5.800E+04	1.12 s	7.14	β^+ :100.00; α_n :~	0	3.474E+06	3.474E+06	7.726E+01	NUBASE
2536	71-Lu-155	5.5-		0.069 s	2.33	α :88.00; β^+ :12.00	0	3.180E+05	3.180E+05	5.107E+06	NUBASE
2537	71-Lu-155M	0.5+	2.000E+04	0.138 s	5.80	α_m :76.00; β^+ :24.00	0	6.375E+05	6.375E+05	4.356E+06	NUBASE
2538	71-Lu-155N	12.5-	1.781E+06	2.7E-03 s	1.11	α :50.00; α_m :50.00	0			7.538E+06	NUBASE
2539	71-Lu-156	2.0-		0.494 s	2.43	α :95.00; β^+ :5.00	0	1.586E+05	1.586E+05	5.315E+06	NUBASE
2540	71-Lu-156M	9.0+	2.200E+05	0.198 s	1.01	α_m :94.00; β^+ :6.00	0	1.947E+05	1.947E+05	5.372E+06	NUBASE
2541	71-Lu-157	?		6.8 s	26.47	β^+ :50.00; α_m :50.00	0	1.160E+06	1.160E+06	2.532E+06	NUBASE
2542	71-Lu-157M	5.5-	2.100E+04	4.79 s	2.51	β^+ :94.00; α :6.00	0	2.187E+06	2.187E+06	3.077E+05	NUBASE
2543	71-Lu-158	2.0-		10.6 s	2.83	β^+ :99.09; α :0.91	0	2.907E+06	2.907E+06	4.359E+04	NUBASE
2544	71-Lu-159	0.5+		12.1 s	8.26	β^+ :99.90; α_m :0.10	0	2.042E+06	2.042E+06	4.459E+03	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2545	71-Lu-159M	5.5-	1.000E+05	10 s 100	β^+ :33.33; IT:33.33; α :33.33	0	6.926E+05	7.259E+05	1.533E+06	NUBASE
2546	71-Lu-160	2.0-		36.1 s 0.83	β^+ :100.00; α :~	0	2.633E+06	2.633E+06	4.145E+00	NUBASE
2547	71-Lu-160M	?		40 s 2.50	β^+ :100.00	0	2.633E+06	2.633E+06		NUBASE
2548	71-Lu-161	0.5+		1.283 m 0.04	β^+ :100.00	0	1.761E+06	1.761E+06		NUBASE
2549	71-Lu-161M	4.5-	1.660E+05	7.3E-03 s 5.48	IT:100.00	0		1.660E+05		NUBASE
2550	71-Lu-162	1.0-		1.37 m 0.02	β^+ :100.00	0	2.331E+06	2.331E+06		NUBASE
2551	71-Lu-162M	4.0-	1.200E+05	1.5 m 1.67	β^+ :100.00	0	2.371E+06	2.371E+06		NUBASE
2552	71-Lu-162N	?	3.000E+05	1.9 m 1.67	β^+ :100.00	0	2.431E+06	2.431E+06		NUBASE
2553	71-Lu-163	0.5+		3.97 m 0.05	β^+ :100.00	0	1.504E+06	1.504E+06		NUBASE
2554	71-Lu-164	1.0-		3.14 m 0.02	β^+ :100.00	0	2.127E+06	2.127E+06		NUBASE
2555	71-Lu-165	0.5+		10.74 m 0.02	β^+ :100.00	0	1.282E+06	1.282E+06		NUBASE
2556	71-Lu-166	6.0-		2.65 m 0.06	β^+ :100.00	0	1.856E+06	1.856E+06		NUBASE
2557	71-Lu-166M	3.0-	3.437E+04	1.41 m 0.12	β^+ :58.00; IT:42.00	0	1.083E+06	1.097E+06		NUBASE
2558	71-Lu-166N	0.0-	4.290E+04	2.12 m 0.08	β^+ :80.00; IT _m :20.00	0	1.496E+06	1.498E+06		NUBASE
2559	71-Lu-167	3.5+		51.5 m 0.03	β^+ :100.00	0	1.031E+06	1.031E+06		NUBASE
2560	71-Lu-167M	0.5-		1 m 1.67	IT:50.00; β^+ :50.00	0	5.157E+05	5.157E+05		NUBASE
2561	71-Lu-168	6.0-		5.5 m 0.03	β^+ :100.00	0	1.505E+06	1.505E+06		NUBASE
2562	71-Lu-168M	3.0+	2.200E+05	6.7 m 0.10	β^+ :95.00; IT:5.00	0	1.499E+06	1.510E+06		NUBASE
2563	71-Lu-169	3.5+		1.419 d ~	β^+ :86.40; β^+ _m :13.60	0	7.632E+05	7.632E+05		NUBASE
2564	71-Lu-169M	0.5-	2.900E+04	2.667 m 0.10	IT:100.00	0		2.900E+04		NUBASE
2565	71-Lu-170	0.0+		2.012 d ~	β^+ :100.00	0	1.153E+06	1.153E+06		NUBASE
2566	71-Lu-170M	4.0-	9.291E+04	0.67 s 14.93	IT:100.00	0		9.291E+04		NUBASE
2567	71-Lu-171	3.5+		8.25 d ~	β^+ :100.00	4	8.833E+04	6.413E+05		UKPADD64
2568	71-Lu-171M	0.5-	7.120E+04	1.3 m 0.04	IT:100.00	3	6.944E+04	1.787E+03		UKPADD64
2569	71-Lu-172	4.0-		6.7 d ~	β^+ :100.00	4	1.114E+05	1.955E+06		UKPADD64
2570	71-Lu-172M	1.0-	4.186E+04	3.7 m 0.23	IT:100.00	3	4.020E+04	1.667E+03		UKPADD64
2571	71-Lu-173	3.5+		1.336 y ~	β^+ :100.00	4	4.618E+04	1.702E+05		UKPADD64
2572	71-Lu-174	1.0-		3.559 y ~	β^+ :100.00	4	4.482E+04	1.167E+05		UKPADD64
2573	71-Lu-174M	6.0-	1.708E+05	142 d ~	β^+ :0.58; IT:99.42	4	1.169E+05	6.167E+04		UKPADD64
2574	71-Lu-175	3.5+								NUBASE
2575	71-Lu-176	7.0-		4E+10 y ~	β^- :100.00	4	2.982E+05	4.799E+05		ENSDF
2576	71-Lu-176M	1.0-	1.270E+05	3.635 h ~	β^+ :0.10; β^- :99.91	5	4.662E+05	1.423E+04		LNHB
2577	71-Lu-177	3.5+		6.647 d ~	β^- :100.00	4	1.473E+05	3.343E+04		LNHB
2578	71-Lu-177M	11.5-	9.702E+05	160.3 d ~	β^- _m :77.40; IT:22.60	4	8.208E+04	1.678E+05		UKPADD64
2579	71-Lu-177N	19.5-	3.900E+06	7 m 0.48	β^- _n :50.00; IT _m :50.00	0	2.768E+05	1.742E+06		NUBASE
2580	71-Lu-178	1.0+		28.4 m 0.01	β^- :100.00	4	7.555E+05	1.232E+05		ENSDF
2581	71-Lu-178M	9.0-	1.237E+05	23.1 m 0.02	β^- _m :100.00	0	3.592E+05	3.592E+05		NUBASE
2582	71-Lu-179	3.5+		4.59 h ~	β^- :100.00	4	4.862E+05	2.942E+04		ENSDF
2583	71-Lu-179M	0.5+	5.924E+05	3.1E-03 s 29.03	IT:100.00	0		5.924E+05		NUBASE
2584	71-Lu-180	3.0+		5.7 m 0.03	β^- :100.00	4	5.918E+05	1.453E+06		ENSDF
2585	71-Lu-180M	3.0-	1.390E+04	1 s 100	β^- :50.00; IT:50.00	0	5.187E+05	5.257E+05		NUBASE
2586	71-Lu-180N	9.0-	6.240E+05	1E-03 s 100	β^- _m :50.00; IT:50.00	0	4.302E+05	7.422E+05		NUBASE
2587	71-Lu-181	3.5+		3.5 m 0.14	β^- :100.00	0	8.906E+05	8.906E+05		NUBASE
2588	71-Lu-182	?		2 m 0.17	β^- :100.00	0	1.393E+06	1.393E+06		NUBASE
2589	71-Lu-183	3.5+		58 s 6.90	β^- :100.00	4	1.123E+06	6.514E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2590	71-Lu-184	3.0+		20 s	15	β^- :50.00; β^-_m :50.00	0	1.485E+06	1.485E+06		NUBASE
2591	72-Hf-153	0.5+		0.4 s	100	β^+_m :100.00	0	3.677E+06	3.677E+06		NUBASE
2592	72-Hf-153M	5.5-	7.500E+05	0.5 s	100	β^+ :50.00; IT:50.00	0	1.977E+06	2.352E+06		NUBASE
2593	72-Hf-154	0.0+		2 s	50	β^+ :100.00	0	2.280E+06	2.280E+06		NUBASE
2594	72-Hf-155	3.5-		0.89 s	13.48	β^+ :50.00; β^+_m :50.00	0	2.815E+06	2.815E+06		NUBASE
2595	72-Hf-156	0.0+		0.023 s	4.35	α :97.00; β^+ :3.00	0	5.900E+04	5.900E+04	5.854E+06	NUBASE
2596	72-Hf-157	3.5-		0.115 s	0.87	α :86.00; β^+ :7.00; β^+_m :7.00	0	3.604E+05	3.604E+05	5.061E+06	NUBASE
2597	72-Hf-158	0.0+		2.85 s	2.46	β^+ :55.70; α :44.30	0	9.488E+05	9.488E+05	2.394E+06	NUBASE
2598	72-Hf-159	3.5-		5.2 s	1.92	β^+ :65.00; α :35.00	0	1.485E+06	1.485E+06	1.828E+06	NUBASE
2599	72-Hf-160	0.0+		13.6 s	1.47	β^+ :99.30; α :0.70	0	1.434E+06	1.434E+06	3.431E+04	NUBASE
2600	72-Hf-161	1.5-		18.2 s	2.75	β^+ :99.87; α :0.13	0	2.078E+06	2.078E+06	6.108E+03	NUBASE
2601	72-Hf-162	0.0+		39.4 s	2.28	β^+ :99.99; α :0.01	0	1.222E+06	1.222E+06	3.534E+02	NUBASE
2602	72-Hf-163	1.5-		40 s	1.50	β^+ :100.00; α :~	0	1.835E+06	1.835E+06	4.132E+00	NUBASE
2603	72-Hf-164	0.0+		1.85 m	0.12	β^+ :100.00	0	9.400E+05	9.400E+05		NUBASE
2604	72-Hf-165	2.5-		1.267 m	0.09	β^+ :100.00	0	1.602E+06	1.602E+06		NUBASE
2605	72-Hf-166	0.0+		6.77 m	0.07	β^+_m :64.56; β^+_n :35.44	0	7.082E+05	7.082E+05		NUBASE
2606	72-Hf-167	2.5-		2.05 m	0.04	β^+ :50.00; β^+_m :50.00	0	1.344E+06	1.344E+06		NUBASE
2607	72-Hf-168	0.0+		25.95 m	0.01	β^+_m :100.00	0	4.930E+05	4.930E+05		NUBASE
2608	72-Hf-169	2.5-		3.24 m	0.02	β^+ :96.50; β^+_m :3.50	0	1.120E+06	1.120E+06		NUBASE
2609	72-Hf-170	0.0+		16.01 h	~	β^+ :99.93; β^+_m :0.07	0	5.280E+04	1.056E+05		NUBASE
2610	72-Hf-171	3.5+		12.1 h	~	β^+ :100.00	0	8.008E+05	8.008E+05		NUBASE
2611	72-Hf-171M	0.5-	2.193E+04	29.5 s	3.05	IT:100.00	0	2.193E+04	2.193E+04		NUBASE
2612	72-Hf-172	0.0+		1.87 y	~	β^+ :~; β^+_m :100.00	4	6.865E+04	1.093E+05		ENSDF
2613	72-Hf-173	0.5-		23.9 h	~	β^+ :100.00	4	5.205E+04	3.966E+05		UKPADD64
2614	72-Hf-174	0.0+		2E+15 y	~	α :100.00	1			2.504E+06	UKPADD64
2615	72-Hf-175	2.5-		70 d	~	β^+ :100.00	4	4.551E+04	3.630E+05		UKPADD64
2616	72-Hf-176	0.0+									NUBASE
2617	72-Hf-177	3.5-									NUBASE
2618	72-Hf-177M	11.5+	1.315E+06	1.08 s	5.56	IT:100.00	3	2.407E+05	1.068E+06		UKPADD64
2619	72-Hf-177N	18.5-	2.740E+06	51.4 m	0.02	IT _m :100.00	3	2.515E+05	1.177E+06		UKPADD64
2620	72-Hf-178	0.0+									NUBASE
2621	72-Hf-178M	8.0-	1.147E+06	4 s	7.50	IT:100.00	3	1.415E+05	1.006E+06		UKPADD64
2622	72-Hf-178N	16.0+	2.446E+06	31.001 y	~	IT _m :100.00	3	7.362E+04	1.223E+06		UKPADD64
2623	72-Hf-179	4.5+									NUBASE
2624	72-Hf-179M	0.5-	3.750E+05	18.67 s	0.21	IT:100.00	0		3.750E+05		NUBASE
2625	72-Hf-179N	12.5-	1.106E+06	25.05 d	~	IT:100.00	0		1.106E+06		NUBASE
2626	72-Hf-180	0.0+									NUBASE
2627	72-Hf-180M	8.0-	1.141E+06	5.5 h	~	β^-_m :0.31; IT:99.69	4	1.486E+05	9.924E+05		UKPADD64
2628	72-Hf-181	0.5-		42.38 d	~	β^- :100.00	4	2.044E+05	5.305E+05		UKPADD64
2629	72-Hf-182	0.0+		9E+06 y	~	β^- :100.00	4	3.215E+04	2.394E+05		ENSDF
2630	72-Hf-182M	8.0-	1.173E+06	1.025 h	~	β^-_n :58.00; IT:42.00	0	1.987E+05	6.913E+05		NUBASE
2631	72-Hf-183	1.5-		1.067 h	~	β^- :100.00	0	6.687E+05	6.687E+05		NUBASE
2632	72-Hf-184	0.0+		4.12 h	~	β^- :100.00	0	4.470E+05	4.470E+05		NUBASE
2633	72-Hf-184M	8.0-	1.272E+06	48 s	20.83	β^- :100.00	0	8.711E+05	8.711E+05		NUBASE
2634	72-Hf-185	1.5-		3.5 m	0.29	β^- :100.00	0	1.012E+06	1.012E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2635	72-Hf-186	0.0+		2.6 m 0.77	β^- :100.00	0	7.267E+05	7.267E+05		NUBASE
2636	72-Hf-187	1.5-		30 s 100	β^- :100.00	0	1.263E+06	1.263E+06		NUBASE
2637	72-Hf-188	0.0+		20 s 100	β^- :100.00	0	9.767E+05	9.767E+05		NUBASE
2638	73-Ta-155	5.5-		1.3E-05 s 30.77	p:100.00	0			1.771E+06	NUBASE
2639	73-Ta-156	2.0-		0.144 s 16.67	p:100.00	0			1.011E+06	NUBASE
2640	73-Ta-156M	9.0+	1.000E+05	0.36 s 11.11	β^+ :95.80; p:4.20	0	3.880E+06	3.880E+06	4.666E+04	NUBASE
2641	73-Ta-157	0.5+		0.01 s 3.96	α :95.60; p:3.40; β^+ :1.00	0	3.040E+04	3.040E+04	6.107E+06	NUBASE
2642	73-Ta-157M	5.5-	2.200E+04	4.3E-03 s 2.33	α_m :99.00; β^+ :1.00	0	3.047E+04	3.047E+04	6.234E+06	NUBASE
2643	73-Ta-157N	12.5-	1.593E+06	1.7E-03 s 5.88	α_m :100.00	0			7.868E+06	NUBASE
2644	73-Ta-158	2.0-		0.049 s 16.33	α :96.00; β^+ :4.00	0	1.478E+05	1.478E+05	5.880E+06	NUBASE
2645	73-Ta-158M	9.0+	1.400E+05	0.036 s 2.22	α_m :93.00; β^+ :3.50; IT:3.50	0	1.309E+05	1.358E+05	5.773E+06	NUBASE
2646	73-Ta-159	0.5+		1.04 s 8.65	β^+ :66.00; α :34.00	0	1.849E+06	1.849E+06	1.932E+06	NUBASE
2647	73-Ta-159M	5.5-	6.400E+04	0.514 s 3.89	α_m :55.00; β^+ :45.00	0	1.270E+06	1.270E+06	3.149E+06	NUBASE
2648	73-Ta-160	2.0-		1.7 s 11.76	β^+ :50.00; α :50.00	0	1.676E+06	1.676E+06	2.723E+06	NUBASE
2649	73-Ta-160M	9.0+	3.100E+05	1.55 s 2.58	β^+ :66.00; α_m :34.00	0	2.281E+06	2.281E+06	1.882E+06	NUBASE
2650	73-Ta-161	0.5+		3 s 100	β^+ :50.00; α :50.00	0	1.265E+06	1.265E+06	2.664E+06	NUBASE
2651	73-Ta-161M	5.5-	5.000E+04	2.89 s 4.15	β^+ :95.00; α_m :5.00	0	2.419E+06	2.419E+06	2.679E+05	NUBASE
2652	73-Ta-162	3.0+		3.57 s 3.36	β^+ :99.93; α :0.07	0	3.129E+06	3.129E+06	3.707E+03	NUBASE
2653	73-Ta-163	0.5+		10.6 s 16.98	β^+ :99.80; α :0.10; α_m :0.10	0	2.244E+06	2.244E+06	9.390E+03	NUBASE
2654	73-Ta-164	3.0+		14.2 s 2.11	β^+ :100.00	4	2.739E+06	1.617E+06		ENSDF
2655	73-Ta-165	2.5-		31 s 4.84	β^+ :100.00	0	1.927E+06	1.927E+06		NUBASE
2656	73-Ta-166	2.0+		34.4 s 1.45	β^+ :100.00	0	2.587E+06	2.587E+06		NUBASE
2657	73-Ta-167	1.5+		1.33 m 0.09	β^+ :100.00	0	1.706E+06	1.706E+06		NUBASE
2658	73-Ta-168	?		2 m 0.08	β^+ :100.00	0	2.322E+06	2.322E+06		NUBASE
2659	73-Ta-169	2.5+		4.9 m 0.14	β^+ :100.00	0	1.476E+06	1.476E+06		NUBASE
2660	73-Ta-170	3.0+		6.76 m 0.01	β^+ :100.00	4	1.598E+06	1.056E+06		ENSDF
2661	73-Ta-171	2.5-		23.3 m 0.02	β^+ :50.00; β_m :50.00	0	1.233E+06	1.233E+06		NUBASE
2662	73-Ta-172	3.0+		36.8 m 0.01	β^+ :100.00	4	4.243E+05	1.732E+06		ENSDF
2663	73-Ta-173	2.5-		3.14 h ~	β^+ :100.00	4	1.247E+05	4.093E+05		ENSDF
2664	73-Ta-174	3.0+		1.14 h ~	β^+ :100.00	4	3.615E+05	8.373E+05		ENSDF
2665	73-Ta-175	3.5+		10.5 h ~	β^+ :100.00	0	6.916E+05	6.916E+05		NUBASE
2666	73-Ta-176	1.0-		8.09 h ~	β^+ :100.00	4	7.009E+04	2.099E+06		ENSDF
2667	73-Ta-176M	0.0+	1.030E+05	1.1E-03 s 9.09	IT:100.00	0		1.030E+05		NUBASE
2668	73-Ta-176N	20.0-	2.820E+06	9.7E-04 s 7.22	IT _m :100.00	0		2.717E+06		NUBASE
2669	73-Ta-177	3.5+		2.35 d ~	β^+ :100.00	4	2.272E+04	6.775E+04		UKPADD64
2670	73-Ta-178	1.0+		9.29 m 0.01	β^+ :100.00	4	2.748E+04	1.189E+05		LNHB
2671	73-Ta-178M	7.0-		2.36 h ~	β_m :100.00	0	2.633E+05	2.633E+05		NUBASE
2672	73-Ta-178N	15.0-	1.471E+06	0.059 s 5.08	IT _m :100.00	0		1.471E+06		NUBASE
2673	73-Ta-179	3.5+		1.61 y ~	β^+ :100.00	3	7.395E+03	2.925E+04		UKPADD64
2674	73-Ta-179M	12.5+	1.317E+06	9E-03 s 2.22	IT:100.00	0		1.317E+06		NUBASE
2675	73-Ta-179N	18.5+	2.639E+06	0.054 s 3.14	IT _m :100.00	0		1.322E+06		NUBASE
2676	73-Ta-180	1.0+		8.08 h ~	β^- :18.10; β^+ :81.90	5	6.406E+04	4.593E+04		UKPADD64
2677	73-Ta-180M	9.0-	7.500E+04	1.8E+15 y ~	β^- :20.00; β^+ :80.00	5	1.259E+05	5.625E+05		UKPADD64

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2678	73-Ta-181	3.5+								NUBASE
2679	73-Ta-182	3.0-		114.7 d ~	β^- :100.00	4	2.163E+05	1.283E+06		UKPADD64
2680	73-Ta-182M	5.0+	1.626E+04	0.283 s 1.06	IT:100.00	3	1.432E+04	1.917E+03		UKPADD64
2681	73-Ta-182N	10.0-	5.196E+05	15.84 m 0.01	IT _m :100.00	3	2.444E+05	2.546E+05		UKPADD64
2682	73-Ta-183	3.5+		5.09 d ~	β^- :96.60; β^-_{m} :3.40	4	3.494E+05	2.866E+05		UKPADD64
2683	73-Ta-184	5.0-		8.7 h ~	β^- :100.00	0	9.554E+05	9.554E+05		NUBASE
2684	73-Ta-185	3.5+		49 m 0.07	β^- :100.00	4	7.341E+05	1.374E+05		ENSDF
2685	73-Ta-185M	10.5-	1.308E+06	1E-03 s 100	IT:100.00	0		1.308E+06		NUBASE
2686	73-Ta-186	?		10.5 m 0.05	β^- :100.00	0	1.300E+06	1.300E+06		NUBASE
2687	73-Ta-187	3.5+		2 m 1.67	β^- :100.00	0	1.045E+06	1.045E+06		NUBASE
2688	73-Ta-188	?		20 s 100	β^- :100.00	0	1.619E+06	1.619E+06		NUBASE
2689	73-Ta-189	3.5+		3 s 100	β^- :100.00	0	1.217E+06	1.217E+06		NUBASE
2690	73-Ta-190	?		0.3 s 100	β^- :100.00	0	1.880E+06	1.880E+06		NUBASE
2691	74-W -158	0.0+		1.37E-03 s 12.41	α :100.00	0			6.605E+06	NUBASE
2692	74-W -159	3.5-		8.2E-03 s 8.54	α :82.00; β^+ :9.00; β^+_{m} :9.00	0	5.512E+05	5.512E+05	5.285E+06	NUBASE
2693	74-W -160	0.0+		0.09 s 5.56	α :87.00; β^+ :13.00	0	2.825E+05	2.825E+05	5.277E+06	NUBASE
2694	74-W -161	3.5-		0.409 s 3.91	α :73.00; β^+ :13.50; β^+_{m} :13.50	0	7.466E+05	7.466E+05	4.318E+06	NUBASE
2695	74-W -162	0.0+		1.36 s 5.15	β^+ :54.80; α :45.20	0	1.055E+06	1.055E+06	2.566E+06	NUBASE
2696	74-W -163	1.5-		2.8 s 7.14	β^+ :87.00; α :13.00	0	2.213E+06	2.213E+06	7.175E+05	NUBASE
2697	74-W -164	0.0+		6.3 s 3.17	β^+ :96.20; α :3.80	0	1.619E+06	1.619E+06	2.006E+05	NUBASE
2698	74-W -165	1.5-		5.1 s 9.80	β^+ :99.80; α :0.20	0	2.326E+06	2.326E+06	1.006E+04	NUBASE
2699	74-W -166	0.0+		19.2 s 3.12	β^+ :99.97; α :0.03	0	1.402E+06	1.402E+06	1.700E+03	NUBASE
2700	74-W -167	1.5-		19.9 s 2.51	β^+ :99.96; α :0.04	0	2.086E+06	2.086E+06	1.909E+03	NUBASE
2701	74-W -168	0.0+		51 s 3.92	β^+ :100.00; α :~	0	1.168E+06	1.168E+06	1.442E+02	NUBASE
2702	74-W -169	2.5-		1.267 m 0.13	β^+ :100.00	0	1.791E+06	1.791E+06		NUBASE
2703	74-W -170	0.0+		2.42 m 0.03	β^+ :99.00; α :1.00	0	9.388E+05	9.388E+05	4.141E+04	NUBASE
2704	74-W -171	2.5-		2.38 m 0.03	β^+ :100.00	0	1.545E+06	1.545E+06		NUBASE
2705	74-W -172	0.0+		6.6 m 0.23	β^+ :100.00	0	7.443E+05	7.443E+05		NUBASE
2706	74-W -173	2.5-		7.6 m 0.04	β^+ :100.00	0	1.223E+06	1.223E+06		NUBASE
2707	74-W -174	0.0+		33.2 m 0.11	β^+ :100.00	0	5.047E+05	5.047E+05		NUBASE
2708	74-W -175	0.5-		35.2 m 0.03	β^+ :100.00	0	9.253E+05	9.253E+05		NUBASE
2709	74-W -176	0.0+		2.5 h ~	β^+ :100.00	4	5.730E+04	1.715E+05		UKPADD64
2710	74-W -177	0.5-		2.2 h ~	β^+ :100.00	4	8.187E+04	8.153E+05		ENSDF
2711	74-W -178	0.0+		21.6 d ~	β^+ :100.00	3	6.995E+03	1.916E+04		UKPADD64
2712	74-W -179	3.5-		37.05 m 0.01	β^+ :100.00	4	1.288E+04	5.405E+04		ENSDF
2713	74-W -179M	0.5-	2.219E+05	6.4 m 0.02	IT:99.72; β^+ :0.28	0	1.199E+03	2.225E+05		NUBASE
2714	74-W -180	0.0+								NUBASE
2715	74-W -180M	8.0-	1.529E+06	5.47E-03 s 1.65	IT:100.00	0		1.529E+06		NUBASE
2716	74-W -181	4.5+		120.98 d ~	β^+ :100.00	4	1.268E+04	4.121E+04		UKPADD64
2717	74-W -182	0.0+								NUBASE
2718	74-W -183	0.5-		1.1E+17 y ~	α :33.40; α_m :33.30; α_n :33.30	0			1.187E+06	NUBASE
2719	74-W -183M	5.5+	3.095E+05	5.25 s 1.33	IT:100.00	3	1.840E+05	1.254E+05		UKPADD64
2720	74-W -184	0.0+		4E+17 y ~	α :100.00	0			1.656E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2721	74-W -185	1.5-		75.1 d ~	β^- :100.00	4	1.268E+05	5.016E+01		UKPADD64
2722	74-W -185M	5.5+	1.974E+05	1.667 m 0.03	IT:100.00	3	1.720E+05	2.574E+04		UKPADD64
2723	74-W -186	0.0+		5.9E+17 y ~	2 β^- :50.00; α :50.00	0	2.450E+05		5.623E+05	NUBASE
2724	74-W -186M	16.0+	3.543E+06	3E-03 s 100	IT:100.00	0		3.543E+06		NUBASE
2725	74-W -187	1.5-		23.85 h ~	β^- :100.00	4	3.013E+05	4.421E+05		UKPADD64
2726	74-W -188	0.0+		69.78 d ~	β^- :100.00	4	9.961E+04	1.890E+03		ENSDF
2727	74-W -189	1.5-		10.7 m 0.08	β^- :100.00	0	8.327E+05	8.327E+05		NUBASE
2728	74-W -190	0.0+		30 m 0.08	β^- :100.00	4	4.669E+05	1.498E+05		ENSDF
2729	74-W -190M	10.0-	2.381E+06	3.1E-03 s 100	IT:100.00	0		2.381E+06		NUBASE
2730	74-W -191	1.5-		20 s 100	β^- :100.00	0	1.080E+06	1.080E+06		NUBASE
2731	74-W -192	0.0+		10 s 100	β^- :100.00	0	6.867E+05	6.867E+05		NUBASE
2732	75-Re-160	2.0-		8.6E-04 s 13.95	p:91.00; α :9.00	0			1.770E+06	NUBASE
2733	75-Re-161	?		0.015 s 26.67	α :100.00	1			6.439E+06	ENSDF
2734	75-Re-161M	5.5-	1.238E+05	0.016 s 5.77	α_m :95.20; p:4.80	0			6.182E+06	NUBASE
2735	75-Re-162	2.0-		0.107 s 12.15	α :94.00; β^+ :6.00	0	2.330E+05	2.330E+05	5.870E+06	NUBASE
2736	75-Re-162M	9.0+	1.730E+05	0.077 s 11.69	α_m :91.00; β^+ :9.00	0	3.548E+05	3.548E+05	5.713E+06	NUBASE
2737	75-Re-163	0.5+		0.39 s 17.95	β^+ :68.00; α :32.00	0	2.018E+06	2.018E+06	1.925E+06	NUBASE
2738	75-Re-163M	5.5-	1.150E+05	0.214 s 2.34	α_m :66.00; β^+ :34.00	0	1.022E+06	1.022E+06	4.004E+06	NUBASE
2739	75-Re-164	?		1E-09 s 100	α_m :100.00	0			5.505E+06	NUBASE
2740	75-Re-164M	2.0-	2.200E+05	0.53 s 43.40	α :58.00; β^+ :42.00	0	1.514E+06	1.514E+06	3.500E+06	NUBASE
2741	75-Re-165	0.5+		1 s 100	β^+ :50.00; α :50.00	0	1.368E+06	1.368E+06	2.824E+06	NUBASE
2742	75-Re-165M	5.5-	4.700E+04	2.1 s 14.29	β^+ :87.00; α_m :13.00	0	2.393E+06	2.393E+06	7.339E+05	NUBASE
2743	75-Re-166	2.0-		2 s 100	β^+ :50.00; α :50.00	0	1.674E+06	1.674E+06	2.753E+06	NUBASE
2744	75-Re-166M	9.0+	2.500E+05	2.5 s 8	β^+ :95.00; α :5.00	0	3.259E+06	3.259E+06	2.878E+05	NUBASE
2745	75-Re-167	4.5-		3.4 s 11.76	α :100.00	0			5.275E+06	NUBASE
2746	75-Re-167M	0.5+	1.300E+05	5.9 s 5.08	β^+ :99.00; α :1.00	0	2.435E+06	2.435E+06	5.405E+04	NUBASE
2747	75-Re-168	?		4.4 s 2.27	β^+ :100.00; α :0.01	0	3.033E+06	3.033E+06	2.534E+02	NUBASE
2748	75-Re-169	4.5-		8.1 s 6.17	β^+ :100.00; α :0.01	0	2.177E+06	2.177E+06	2.522E+02	NUBASE
2749	75-Re-169M	0.5+	1.600E+05	15.1 s 10.60	β^+ :99.80; α :0.20	0	2.226E+06	2.226E+06	1.041E+04	NUBASE
2750	75-Re-170	5.0+		9.2 s 2.17	β^+ :99.99; α :0.01	0	2.791E+06	2.791E+06	4.755E+02	NUBASE
2751	75-Re-171	4.5-		15.2 s 2.63	β^+ :100.00	0	1.945E+06	1.945E+06		NUBASE
2752	75-Re-172	?		15 s 20	β^+ :100.00	0	2.526E+06	2.526E+06		NUBASE
2753	75-Re-172M	?		55 s 9.09	β^+ :100.00	0	2.526E+06	2.526E+06		NUBASE
2754	75-Re-173	2.5-		2 m 0.25	β^+ :100.00	0	1.724E+06	1.724E+06		NUBASE
2755	75-Re-174	?		2.4 m 0.03	β^+ :100.00	0	2.185E+06	2.185E+06		NUBASE
2756	75-Re-175	2.5-		5.89 m 0.01	β^+ :100.00	0	1.448E+06	1.448E+06		NUBASE
2757	75-Re-176	3.0+		5.3 m 0.09	β^+ :100.00	4	1.088E+06	1.051E+06		ENSDF
2758	75-Re-177	2.5-		14 m 0.12	β^+ :100.00	0	1.144E+06	1.144E+06		NUBASE
2759	75-Re-178	3.0+		13.2 m 0.03	β^+ :100.00	0	1.588E+06	1.588E+06		NUBASE
2760	75-Re-179	2.5+		19.5 m 0.01	β^+ :76.00; β^+_m :24.00	0	8.882E+05	8.882E+05		NUBASE
2761	75-Re-180	1.0-		2.44 m 0.04	β^+ :100.00	4	1.335E+05	1.147E+06		ENSDF
2762	75-Re-181	2.5+		19.9 h ~	β^+ :100.00	4	1.271E+05	7.872E+05		ENSDF
2763	75-Re-182	7.0+		2.667 d ~	β^+ :100.00	4	1.896E+05	1.795E+06		ENSDF
2764	75-Re-182M	2.0+	6.000E+04	12.7 h ~	β^+ :100.00	4	8.211E+04	1.206E+06		ENSDF
2765	75-Re-183	2.5+		70 d ~	β^+ :50.00; β^+_m :50.00	0	2.006E+04	4.013E+04		NUBASE
2766	75-Re-183M	12.5+	1.908E+06	1.04E-03 s 4.81	IT:100.00	0		1.908E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2811	76-Os-189	1.5-									NUBASE
2812	76-Os-189M	4.5-	3.081E+04	5.81 h	~	IT:100.00	0		3.081E+04		NUBASE
2813	76-Os-190	0.0+									NUBASE
2814	76-Os-190M	10.0-	1.705E+06	9.9 m	0.07	IT:100.00	3	1.169E+05	1.589E+06		UKPADD64
2815	76-Os-191	4.5-		15.4 d	~	β^- :52.80; β^-_{m} :47.20	0	7.729E+04	7.729E+04		NUBASE
2816	76-Os-191M	1.5-	7.438E+04	13.1 h	~	IT:100.00	3	6.649E+04	7.855E+03		UKPADD64
2817	76-Os-192	0.0+									NUBASE
2818	76-Os-192M	10.0-	2.015E+06	5.9 s	1.69	IT:87.00; β^-_{n} :13.00	0	3.466E+04	1.788E+06		NUBASE
2819	76-Os-193	1.5-		1.255 d	~	β^- :99.65; β^-_{m} :0.35	4	3.796E+05	6.706E+04		ENSDF
2820	76-Os-194	0.0+		6 y	~	β^- :100.00	0	3.220E+04	3.220E+04		NUBASE
2821	76-Os-195	0.5-		6.5 m	0.15	β^- :100.00	4	7.153E+05	1.422E+05		UKPADD64
2822	76-Os-196	0.0+		34.9 m	0.01	β^- :100.00	4	3.726E+05	7.703E+04		UKPADD64
2823	77-Ir-164	2.0-		1E-03 s	100	p :33.33; α :33.33; β^+ :33.33	0	1.466E+06	1.466E+06	2.842E+06	NUBASE
2824	77-Ir-164M	9.0+	2.700E+05	9.4E-05 s	28.72	p :33.33; α :33.33; β^+ :33.33	0	1.496E+06	1.496E+06	3.022E+06	NUBASE
2825	77-Ir-165	0.5+		1E-06 s	100	p :50.00; α :50.00	0			4.183E+06	NUBASE
2826	77-Ir-166	2.0-		0.011 s	20.95	α :93.10; p :6.90	1			6.261E+06	ENSDF
2827	77-Ir-166M	9.0+	1.720E+05	0.015 s	5.96	α_m :98.20; p :1.80	0			6.617E+06	NUBASE
2828	77-Ir-167	0.5+		0.035 s	5.68	α :48.00; p :32.00; β^+ :20.00	0	6.281E+05	6.281E+05	3.464E+06	NUBASE
2829	77-Ir-167M	5.5-	1.753E+05	0.03 s	2	α_m :80.00; β^+ :19.60; p :0.40	0	6.270E+05	6.270E+05	5.256E+06	NUBASE
2830	77-Ir-168	?		0.161 s	13.04	α :100.00	0			6.475E+06	NUBASE
2831	77-Ir-168M	?	1.500E+05	0.125 s	32	α_m :50.00; β^+ :50.00	0	1.900E+06	1.900E+06	3.203E+06	NUBASE
2832	77-Ir-169	?		0.4 s	25	α :100.00	1			6.275E+06	ENSDF
2833	77-Ir-169M	5.5-	1.540E+05	0.308 s	7.14	α_m :72.00; β^+ :28.00	0	8.208E+05	8.208E+05	4.506E+06	NUBASE
2834	77-Ir-170	?		0.91 s	16.48	β^+ :94.80; α :2.60; α_m :2.60	0	3.352E+06	3.352E+06	3.110E+05	NUBASE
2835	77-Ir-170M	?	3.707E+05	0.44 s	13.64	α :18.00; α_m :18.00; β^+ :32.00; IT:32.00	0	1.171E+06	1.290E+06	2.286E+06	NUBASE
2836	77-Ir-171	0.5+		3.6 s	27.78	α_m :100.00	0			5.855E+06	NUBASE
2837	77-Ir-171M	5.5-	1.800E+05	1.4 s	7.14	α :58.00; β^+ :21.00; p :21.00	0	5.630E+05	5.630E+05	3.657E+06	NUBASE
2838	77-Ir-172	3.0+		4.4 s	6.82	β^+ :98.00; α :2.00	0	3.175E+06	3.175E+06	1.169E+05	NUBASE
2839	77-Ir-172M	7.0+	1.390E+05	2 s	5	β^+ :77.00; α :23.00	0	2.530E+06	2.530E+06	1.376E+06	NUBASE
2840	77-Ir-173	?		9 s	8.89	β^+ :93.00; α :3.50; α_m :3.50	0	2.221E+06	2.221E+06	3.926E+05	NUBASE
2841	77-Ir-173M	5.5-	2.500E+05	2.2 s	2.27	β^+ :88.00; α :12.00	0	2.175E+06	2.175E+06	7.127E+05	NUBASE
2842	77-Ir-174	3.0+		7.9 s	7.59	β^+ :99.50; α :0.50	0	3.027E+06	3.027E+06	2.812E+04	NUBASE
2843	77-Ir-174M	7.0+	1.930E+05	4.9 s	6.12	β^+ :97.50; α :2.50	0	3.029E+06	3.029E+06	1.454E+05	NUBASE
2844	77-Ir-175	2.5-		9 s	22.22	β^+ :99.15; α :0.85	0	2.206E+06	2.206E+06	4.587E+04	NUBASE
2845	77-Ir-176	?		8.3 s	7.23	β^+ :96.90; α :1.55; α_m :1.55	0	2.661E+06	2.661E+06	1.623E+05	NUBASE
2846	77-Ir-177	2.5-		30 s	6.67	β^+ :99.94; α :0.06	0	1.966E+06	1.966E+06	3.049E+03	NUBASE
2847	77-Ir-178	?		12 s	16.67	β^+ :100.00	0	2.431E+06	2.431E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2848	77-Ir-179	2.5-		1.317 m 0.02	β^+ :100.00	0	1.648E+06	1.648E+06		NUBASE
2849	77-Ir-180	?		1.5 m 0.11	β^+ :100.00	0	2.127E+06	2.127E+06		NUBASE
2850	77-Ir-181	2.5-		4.9 m 0.05	β^+ :50.00; β^+ _m :50.00	0	1.351E+06	1.351E+06		NUBASE
2851	77-Ir-182	3.0+		15 m 0.11	β^+ :100.00	0	1.852E+06	1.852E+06		NUBASE
2852	77-Ir-183	2.5-		58 m 0.14	β^+ :32.98; β^+ _m :66.97; α :0.05	0	1.116E+06	1.116E+06	1.982E+03	NUBASE
2853	77-Ir-184	5.0-		3.09 h ~	β^+ :100.00	0	1.548E+06	1.548E+06		NUBASE
2854	77-Ir-185	2.5-		14.4 h ~	β^+ :100.00	0	8.245E+05	8.245E+05		NUBASE
2855	77-Ir-186	5.0+		16.64 h ~	β^+ :100.00	0	1.276E+06	1.276E+06		NUBASE
2856	77-Ir-186M	2.0-	8.000E+02	1.92 h ~	β^+ :75.00; IT:25.00	0	9.568E+05	9.570E+05		NUBASE
2857	77-Ir-187	1.5+		10.5 h ~	β^+ :100.00	4	6.379E+04	3.015E+05		UKPADD64
2858	77-Ir-187M	4.5-	1.862E+05	0.03 s 1.98	IT:100.00	0		1.862E+05		NUBASE
2859	77-Ir-188	1.0-		1.729 d ~	β^+ :100.00	0	9.361E+05	9.361E+05		NUBASE
2860	77-Ir-188M	7.0+	9.700E+05	4.2E-03 s 4.76	IT:100.00	0		9.700E+05		NUBASE
2861	77-Ir-189	1.5+		13.2 d ~	β^+ :92.51; β^+ _m :7.49	4	4.026E+04	7.892E+04		ENSDF
2862	77-Ir-189M	5.5-	3.722E+05	0.013 s 2.26	IT:100.00	0		3.722E+05		NUBASE
2863	77-Ir-189N	12.5+	2.333E+06	3.7E-03 s 5.41	IT _m :100.00	0		1.961E+06		NUBASE
2864	77-Ir-190	4.0-		12 d ~	β^+ :100.00	4	7.211E+04	1.478E+06		UKPADD64
2865	77-Ir-190M	1.0-	2.610E+04	1.12 h ~	IT:100.00	3	2.384E+04	2.283E+03		UKPADD64
2866	77-Ir-190N	11.0-	3.764E+05	3.087 h ~	IT:8.60; β^+ _m :91.40	4	2.888E+04	5.887E+04		UKPADD64
2867	77-Ir-191	1.5+								NUBASE
2868	77-Ir-191M	5.5-	1.712E+05	4.9 s 0.41	IT:100.00	3	9.709E+04	7.547E+04		UKPADD64
2869	77-Ir-191N	13.5-	2.085E+06	5.5 s 12.73	IT _m :100.00	3	4.576E+04	1.868E+06		UKPADD64
2870	77-Ir-192	4.0+		73.822 d ~	β^- :95.20; β^+ :4.80	5	2.173E+05	8.165E+05		UKPADD64
2871	77-Ir-192M	1.0-	5.672E+04	1.44 m 0.08	β^- :0.02; IT:99.98	4	5.443E+04	2.439E+03		UKPADD64
2872	77-Ir-192N	11.0-	1.681E+05	241 y ~	IT:100.00	3	1.650E+05	3.086E+03		UKPADD64
2873	77-Ir-193	1.5+								NUBASE
2874	77-Ir-193M	5.5-	8.024E+04	10.53 d ~	IT:100.00	0		8.024E+04		NUBASE
2875	77-Ir-194	1.0-		19.3 h ~	β^- :100.00	4	8.103E+05	9.099E+04		LNHB
2876	77-Ir-194M	4.0+	1.471E+05	0.032 s 0.75	IT:100.00	0		1.471E+05		NUBASE
2877	77-Ir-194N	?	3.700E+05	171 d ~	β^- :100.00	4	8.306E+04	2.334E+06		ENSDF
2878	77-Ir-195	1.5+		2.5 h ~	β^- :100.00	4	3.784E+05	5.839E+04		ENSDF
2879	77-Ir-195M	5.5-	1.230E+05	3.8 h ~	β^- :64.60; β^- _m :30.40; IT:5.00	0	3.632E+05	3.694E+05		NUBASE
2880	77-Ir-196	0.0-		52 s 3.85	β^- :100.00	2	1.168E+06	2.272E+05		ENSDF
2881	77-Ir-196M	?	2.100E+05	1.4 h ~	β^- :99.70; IT:0.30	0	1.136E+06	1.136E+06		NUBASE
2882	77-Ir-197	1.5+		5.8 m 0.14	β^- :100.00	4	7.334E+05	2.238E+05		UKPADD64
2883	77-Ir-197M	5.5-	1.150E+05	8.9 m 0.06	β^- _m :99.75; IT:0.25	4	6.800E+05	2.042E+03		UKPADD64
2884	77-Ir-198	?		8 s 12.50	β^- :100.00	0	1.363E+06	1.363E+06		NUBASE
2885	77-Ir-199	1.5+		20 s 100	β^- :100.00	0	9.973E+05	9.973E+05		NUBASE
2886	78-Pt-166	0.0+		3E-04 s 33.33	α :100.00	0			7.285E+06	NUBASE
2887	78-Pt-167	3.5-		7E-04 s 28.57	α :100.00	0			7.155E+06	NUBASE
2888	78-Pt-168	0.0+		2E-03 s 20	α :99.30	1			6.950E+06	ENSDF
2889	78-Pt-169	1.5-		3.7E-03 s 40.54	α :99.00; β^+ :1.00	0	3.234E+04	3.234E+04	6.777E+06	NUBASE
2890	78-Pt-170	0.0+		0.014 s 3.62	α :98.00; β^+ :1.00; β^+ _m :1.00	0	4.552E+04	4.552E+04	6.573E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2891	78-Pt-171	1.5-		0.044 s 15.91	α :98.00; β +:2.00	0	5.973E+04	5.973E+04	6.473E+06	NUBASE
2892	78-Pt-172	0.0+		0.098 s 2.44	α :77.00; β +:23.00	0	4.921E+05	4.921E+05	4.978E+06	NUBASE
2893	78-Pt-173	2.5-		0.365 s 1.92	α :84.00; β +:16.00	0	4.444E+05	4.444E+05	5.339E+06	NUBASE
2894	78-Pt-174	0.0+		0.889 s 1.91	α :76.00; β +:24.00	0	4.440E+05	4.440E+05	4.700E+06	NUBASE
2895	78-Pt-175	2.5-		2.53 s 2.37	α :64.00; β +:36.00	0	9.287E+05	9.287E+05	3.954E+06	NUBASE
2896	78-Pt-176	0.0+		6.33 s 2.37	β +:62.00; α :38.00	0	1.019E+06	1.019E+06	2.236E+06	NUBASE
2897	78-Pt-177	2.5-		10.6 s 3.77	β +:94.30; α :5.70	0	2.099E+06	2.099E+06	3.217E+05	NUBASE
2898	78-Pt-178	0.0+		21.1 s 2.84	β +:92.30; α :7.70	0	1.309E+06	1.309E+06	4.291E+05	NUBASE
2899	78-Pt-179	0.5-		21.2 s 1.89	β +:99.76; α :0.24	0	1.933E+06	1.933E+06	1.300E+04	NUBASE
2900	78-Pt-180	0.0+		56 s 3.57	β +:99.70; α :0.30	0	1.177E+06	1.177E+06	1.571E+04	NUBASE
2901	78-Pt-181	0.5-		52 s 4.23	β +:99.93; α :0.07	0	1.698E+06	1.698E+06	3.811E+03	NUBASE
2902	78-Pt-182	0.0+		2.2 m 0.08	β +:99.96; α :0.04	0	9.606E+05	9.606E+05	1.882E+03	NUBASE
2903	78-Pt-183	0.5-		6.5 m 0.26	β +:99.99; α :0.01	0	1.475E+06	1.475E+06	4.630E+02	NUBASE
2904	78-Pt-183M	3.5-	3.450E+04	43 s 11.63	β +:100.00; α :~	0	1.486E+06	1.486E+06	1.943E+01	NUBASE
2905	78-Pt-184	0.0+		17.3 m 0.02	β +:100.00; α :~	0	7.597E+05	7.597E+05	7.824E+01	NUBASE
2906	78-Pt-184M	8.0-	1.839E+06	1.01E-03 s 4.95	IT:100.00	0		1.839E+06		NUBASE
2907	78-Pt-185	4.5+		1.182 h ~	β +:100.00; α_m :0.01	0	1.219E+06	1.219E+06	2.198E+02	NUBASE
2908	78-Pt-185M	0.5-	1.034E+05	33 m 0.04	β +:98.00; IT:2.00	0	1.228E+06	1.230E+06		NUBASE
2909	78-Pt-186	0.0+		2.08 h ~	β_m :100.00; α :~	0	4.361E+05	4.361E+05	6.048E+00	NUBASE
2910	78-Pt-187	1.5-		2.35 h ~	β +:100.00	4	1.032E+05	4.483E+05		ENSDF
2911	78-Pt-188	0.0+		10.2 d ~	β +:100.00	4	7.456E+04	2.054E+05		ENSDF
2912	78-Pt-189	1.5-		10.87 h ~	β +:100.00	4	8.756E+04	4.728E+05		ENSDF
2913	78-Pt-190	0.0+		6.5E+11 y ~	α :100.00	1			3.243E+06	ENSDF
2914	78-Pt-191	1.5-		2.802 d ~	β +:98.98; β_m :1.02	4	6.594E+04	2.943E+05		ENSDF
2915	78-Pt-192	0.0+								NUBASE
2916	78-Pt-193	0.5-		50.001 y ~	β +:100.00	3	7.856E+03	3.378E+04		UKPADD64
2917	78-Pt-193M	6.5+	1.498E+05	4.34 d ~	IT:100.00	3	1.380E+05	1.233E+04		UKPADD64
2918	78-Pt-194	0.0+								NUBASE
2919	78-Pt-195	0.5-								NUBASE
2920	78-Pt-195M	6.5+	2.593E+05	4.02 d ~	IT:100.00	0		2.593E+05		NUBASE
2921	78-Pt-196	0.0+								NUBASE
2922	78-Pt-197	0.5-		19.891 h ~	β -:100.00	4	2.544E+05	2.438E+04		UKPADD64
2923	78-Pt-197M	6.5+	3.996E+05	1.588 h ~	β_m :3.30; IT:96.70	4	3.169E+05	7.608E+04		UKPADD64
2924	78-Pt-198	0.0+								NUBASE
2925	78-Pt-199	2.5-		30.8 m 0.02	β -:100.00	4	5.495E+05	1.994E+05		ENSDF
2926	78-Pt-199M	6.5+	4.240E+05	13.6 s 2.94	IT:100.00	3	7.728E+04	3.406E+05		ENSDF
2927	78-Pt-200	0.0+		12.5 h ~	β -:100.00	4	2.266E+05	5.960E+04		ENSDF
2928	78-Pt-201	2.5-		2.5 m 0.07	β -:100.00	0	8.870E+05	8.870E+05		NUBASE
2929	78-Pt-202	0.0+		1.833 d ~	β -:100.00	1	6.589E+05	1.927E+03		UKPADD64
2930	79-Au-169	0.5+		1.5E-04 s 100	α :50.00; β +:50.00	0	1.765E+06	1.765E+06	3.708E+06	NUBASE
2931	79-Au-170	2.0-		3.1E-04 s 16.13	p:85.00; α :15.00	0			2.335E+06	NUBASE
2932	79-Au-170M	9.0+	2.740E+05	6.3E-04 s 9.52	p:75.00; α_m :12.50; β +:12.50	0	5.404E+05	5.404E+05	2.226E+06	NUBASE
2933	79-Au-171	0.5+		1.7E-05 s 52.94	p:100.00	0			8.575E+03	ENSDF
2934	79-Au-171M	5.5-	2.500E+05	1.014E-03 s 1.87	α_m :54.00; p:46.00	0			4.651E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)		Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2935	79-Au-172	?		4.7E-03	s	23.40	α :49.00; α_m :49.00; p:2.00	0			6.839E+06	NUBASE
2936	79-Au-173	?		0.059	s	76.27	α :100.00	1			6.879E+06	ENSDF
2937	79-Au-173M	5.5-	2.140E+05	0.014	s	6.34	α_m :95.70; β +:4.30	0	1.338E+05	1.338E+05	6.599E+06	NUBASE
2938	79-Au-174	?		0.139	s	2.16	α :45.00; α_m :45.00; β +:10.00	0	3.706E+05	3.706E+05	5.859E+06	NUBASE
2939	79-Au-174M	?	4.600E+05	0.171	s	16.96	α :25.00; α_m :25.00; β +:50.00	0	1.930E+06	1.930E+06	3.485E+06	NUBASE
2940	79-Au-175	0.5+		70	d	~	α :100.00	1			6.562E+06	ENSDF
2941	79-Au-175M	5.5-	2.000E+05	0.156	s	3.21	α_m :82.00; β +:18.00	0	5.070E+05	5.070E+05	5.400E+06	NUBASE
2942	79-Au-176	5.0-		1.08	s	15.74	α :30.00; α_m :30.00; β +:40.00	0	1.385E+06	1.385E+06	3.891E+06	NUBASE
2943	79-Au-176M	7.0+	1.500E+05	0.86	s	18.60	α_m :60.00; β +:40.00	0	1.405E+06	1.405E+06	3.940E+06	NUBASE
2944	79-Au-177	?		1.46	s	2.05	α :100.00	0			6.297E+06	NUBASE
2945	79-Au-177M	5.5-	2.100E+05	1.18	s	1.02	α_m :100.00	0			6.257E+06	NUBASE
2946	79-Au-178	?		2.6	s	19.23	β +:60.00; α :20.00; α_m :20.00	0	1.934E+06	1.934E+06	2.407E+06	NUBASE
2947	79-Au-179	2.5-		7.1	s	4.23	β +:78.00; α :22.00	0	1.901E+06	1.901E+06	1.331E+06	NUBASE
2948	79-Au-180	?		8.1	s	3.70	β +:98.20; α :1.80	0	2.894E+06	2.894E+06	1.051E+05	NUBASE
2949	79-Au-181	1.5-		13.7	s	10.22	β +:97.30; α :2.70	0	2.109E+06	2.109E+06	1.553E+05	NUBASE
2950	79-Au-182	2.0+		15.5	s	2.58	β +:99.87; α :0.13	0	2.619E+06	2.619E+06	7.184E+03	NUBASE
2951	79-Au-183	2.5-		42	s	2.86	α :0.55; β +:99.64	5	7.981E+05	1.330E+06	2.938E+04	ENSDF
2952	79-Au-184	5.0+		20.6	s	4.37	β +:49.99; β_m :49.99; α :0.02	0	2.031E+06	2.031E+06	8.375E+02	NUBASE
2953	79-Au-184M	2.0+	6.846E+04	47.6	s	2.94	β +:69.98; IT:30.00; α :0.02	0	1.652E+06	1.672E+06	8.484E+02	NUBASE
2954	79-Au-185	2.5-		4.25	m	0.02	β +:25.33; β_m :74.41; α :0.26	0	1.575E+06	1.575E+06	1.347E+04	NUBASE
2955	79-Au-186	3.0-		10.7	m	0.08	β +:100.00	4	1.054E+06	1.430E+06		ENSDF
2956	79-Au-187	0.5+		8.4	m	0.06	β +:100.00; α :~	0	1.236E+06	1.236E+06	1.430E+02	NUBASE
2957	79-Au-187M	4.5-	1.205E+05	2.3	s	4.35	IT:100.00	0		1.205E+05		NUBASE
2958	79-Au-188	1.0-		8.84	m	0.01	β +:100.00	0	1.841E+06	1.841E+06		NUBASE
2959	79-Au-189	0.5+		28.7	m	0.02	β +:100.00; α :~	0	9.670E+05	9.670E+05	1.299E+00	NUBASE
2960	79-Au-189M	5.5-	2.472E+05	4.59	m	0.04	β +:100.00	0	1.049E+06	1.049E+06		NUBASE
2961	79-Au-190	1.0-		42.8	m	0.04	β +:100.00	4	1.299E+05	2.123E+06		ENSDF
2962	79-Au-190M	11.0-	2.000E+05	0.125	s	16	IT:100.00	0		2.000E+05		NUBASE
2963	79-Au-191	1.5+		3.18	h	~	β +:100.00	4	7.186E+04	5.582E+05		ENSDF
2964	79-Au-191M	5.5-	2.662E+05	0.92	s	11.96	IT:100.00	0		2.662E+05		NUBASE
2965	79-Au-192	1.0-		4.94	h	~	β +:100.00	4	8.286E+04	1.702E+06		ENSDF
2966	79-Au-192M	5.0+	1.354E+05	0.029	s	10.34	IT:100.00	3	1.261E+05	8.855E+03		UKPADD64
2967	79-Au-192N	11.0-	4.316E+05	0.16	s	12.50	IT _m :100.00	3	1.615E+05	1.347E+05		UKPADD64
2968	79-Au-193	1.5+		17.65	h	~	β +:100.00	4	4.902E+04	1.588E+05		ENSDF
2969	79-Au-193M	5.5-	2.902E+05	3.9	s	7.69	IT:99.97; β +:0.02; β_m :0.02	0	1.298E+02	2.902E+05		NUBASE
2970	79-Au-194	1.0-		1.584	d	~	β +:100.00	4	3.677E+04	1.031E+06		ENSDF
2971	79-Au-194M	5.0+	1.074E+05	0.6	s	1.33	IT:100.00	0		1.074E+05		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
2972	79-Au-194N	11.0-	4.758E+05	0.42 s 2.38	IT _m :100.00	0		3.684E+05		NUBASE
2973	79-Au-195	1.5+		186.1 d ~	β +:100.00	0	1.134E+04	2.268E+04		NUBASE
2974	79-Au-195M	5.5-	3.186E+05	30.5 s 0.66	IT:100.00	0		3.186E+05		NUBASE
2975	79-Au-196	2.0-		6.183 d ~	β +:92.80; β -:7.20	5	2.786E+04	4.721E+05		ENSDF
2976	79-Au-196M	5.0+	8.466E+04	8.1 s 2.47	IT:100.00	0		8.466E+04		NUBASE
2977	79-Au-196N	12.0-	5.957E+05	9.6 h ~	IT _m :100.00	0		5.110E+05		NUBASE
2978	79-Au-197	1.5+								NUBASE
2979	79-Au-197M	5.5-	4.092E+05	7.74 s 0.90	IT:100.00	3	1.838E+05	2.254E+05		UKPADD64
2980	79-Au-198	2.0-		2.694 d ~	β -:100.00	4	3.262E+05	4.028E+05		LNHB
2981	79-Au-198M	12.0-	8.120E+05	2.3 d ~	IT:100.00	3	2.621E+05	5.278E+05		UKPADD64
2982	79-Au-199	1.5+		3.139 d ~	β -:100.00	4	1.451E+05	9.607E+04		UKPADD64
2983	79-Au-200	1.0-		48.4 m 0.01	β -:100.00	4	7.427E+05	2.733E+05		ENSDF
2984	79-Au-200M	12.0-	9.600E+05	18.7 h ~	β -:82.00; IT:18.00	0	8.731E+05	1.046E+06		NUBASE
2985	79-Au-201	1.5+		26 m 0.06	β -:100.00	4	4.241E+05	3.419E+04		ENSDF
2986	79-Au-202	1.0-		28.8 s 6.60	β -:100.00	2	1.180E+06	1.697E+05		ENSDF
2987	79-Au-203	1.5+		53 s 3.77	β -:100.00	2	7.669E+05	6.900E+04		ENSDF
2988	79-Au-204	2.0-		39.8 s 2.26	β -:100.00	0	1.313E+06	1.313E+06		NUBASE
2989	79-Au-205	1.5+		31 s 6.45	β -:100.00	0	1.179E+06	1.179E+06		NUBASE
2990	80-Hg-171	1.5-		8E-05 s 37.50	α :99.99; β +:0.01	0	3.688E+02	3.688E+02	7.614E+06	NUBASE
2991	80-Hg-172	0.0+		4.2E-04 s 57.14	α :100.00	0			7.525E+06	NUBASE
2992	80-Hg-173	1.5-		1.1E-03 s 36.36	α :100.00	0			7.385E+06	NUBASE
2993	80-Hg-174	0.0+		1.9E-03 s 21.05	α :99.70	1			7.212E+06	ENSDF
2994	80-Hg-175	?		0.011 s 3.70	α :99.00	1			6.980E+06	ENSDF
2995	80-Hg-176	0.0+		0.02 s 7.35	α :90.00; β +:10.00	0	2.254E+05	2.254E+05	6.207E+06	NUBASE
2996	80-Hg-177	6.5+		0.127 s 1.41	α :85.00; β +:15.00	0	4.385E+05	4.385E+05	5.725E+06	NUBASE
2997	80-Hg-178	0.0+		0.269 s 1.12	α :70.00; β +:30.00	0	6.013E+05	6.013E+05	4.604E+06	NUBASE
2998	80-Hg-179	2.5-		1.09 s 3.67	α :53.00; β +:46.85; β +,p:0.15	0	1.257E+06	1.257E+06	3.365E+06	NUBASE
2999	80-Hg-180	0.0+		2.58 s 0.39	β +:52.00; α :48.00	0	9.275E+05	9.275E+05	3.004E+06	NUBASE
3000	80-Hg-181	0.5-		3.6 s 2.78	β +:68.98; α :31.00; β +,p:0.02; β +,n:~	0	1.658E+06	1.658E+06	1.948E+06	NUBASE
3001	80-Hg-182	0.0+		10.83 s 0.55	β +:86.20; α :13.80; β +,p:~	0	1.358E+06	1.358E+06	8.276E+05	NUBASE
3002	80-Hg-183	0.5-		9.4 s 7.45	β +:88.30; α :11.70; β +,p:~	0	1.880E+06	1.880E+06	7.066E+05	NUBASE
3003	80-Hg-183M	6.5+	2.400E+05	5 s 100	β +:100.00	0	2.209E+06	2.209E+06		NUBASE
3004	80-Hg-184	0.0+		30.6 s 0.98	β + _m :98.89; α :1.11	0	1.286E+06	1.286E+06	6.285E+04	NUBASE
3005	80-Hg-185	0.5-		49.1 s 2.04	β +:94.00; α :6.00	0	1.783E+06	1.783E+06	3.464E+05	NUBASE
3006	80-Hg-185M	6.5+	1.038E+05	21.6 s 6.94	IT:53.98; β +:45.99; α :0.03	0	8.883E+05	9.443E+05	1.763E+03	NUBASE
3007	80-Hg-186	0.0+		1.38 m 0.07	α :0.02; β +:100.00	5	1.588E+05	4.236E+05	9.169E+02	ENSDF
3008	80-Hg-187	1.5-		1.9 m 0.26	β +:100.00; α :~	0	1.629E+06	1.629E+06	6.275E+00	NUBASE
3009	80-Hg-187M	6.5+	3.000E+04	2.4 m 0.21	β + _m :100.00; α _m :~	0	1.599E+06	1.599E+06	1.306E+01	NUBASE
3010	80-Hg-188	0.0+		3.25 m 0.08	β +:100.00	4	4.448E+04	1.717E+05		ENSDF
3011	80-Hg-189	1.5-		7.6 m 0.02	β +:100.00; α _m :~	0	1.317E+06	1.317E+06	1.357E+00	NUBASE
3012	80-Hg-189M	6.5+	1.000E+05	8.6 m 0.02	β + _m :100.00; α :~	0	1.268E+06	1.268E+06	1.418E+00	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3013	80-Hg-190	0.0+		20 m 0.03	β^+ :100.00	4	6.807E+04	2.044E+05		UKPADD64
3014	80-Hg-191	1.5-		49 m 0.34	β^+ :100.00; α :~	0	1.072E+06	1.072E+06	1.848E-01	NUBASE
3015	80-Hg-191M	6.5+	1.280E+05	50.8 m 0.05	β^+ :56.00; β^+_{m} :44.00; α :~	0	1.076E+06	1.076E+06	1.912E-01	NUBASE
3016	80-Hg-192	0.0+		4.85 h ~	β^+ :100.00	4	5.289E+04	2.723E+05		ENSDF
3017	80-Hg-193	1.5-		3.8 h ~	β^+ :96.64; β^+_{m} :3.36	0	7.778E+05	7.778E+05		NUBASE
3018	80-Hg-193M	6.5+	1.408E+05	11.8 h ~	β^+ :40.83; β^+_{m} :51.97; IT:7.20	0	7.180E+05	7.282E+05		NUBASE
3019	80-Hg-194	0.0+		440.008 y ~	β^+ :100.00	0	3.450E+03	6.900E+03		NUBASE
3020	80-Hg-195	0.5-		9.9 h ~	β^+ :97.90; β^+_{m} :2.10	4	5.556E+04	1.995E+05		ENSDF
3021	80-Hg-195M	6.5+	1.761E+05	1.733 d ~	IT:54.20; β^+ :22.90; β^+_{m} :22.90	0	2.422E+05	3.377E+05		NUBASE
3022	80-Hg-196	0.0+		2.5E+18 y ~	2 β^+ :100.00	0	8.207E+05			NUBASE
3023	80-Hg-197	0.5-		2.692 d ~	β^+ :100.00	4	6.915E+04	7.351E+04		UKPADD64
3024	80-Hg-197M	6.5+	2.989E+05	23.9 h ~	β^+_{m} :8.60; IT:91.40	4	2.006E+05	7.798E+04		UKPADD64
3025	80-Hg-198	0.0+								NUBASE
3026	80-Hg-199	0.5-								NUBASE
3027	80-Hg-199M	6.5+	5.325E+05	42.1 m 0.04	IT:100.00	3	3.477E+05	1.846E+05		UKPADD64
3028	80-Hg-200	0.0+								NUBASE
3029	80-Hg-201	1.5-								NUBASE
3030	80-Hg-202	0.0+								NUBASE
3031	80-Hg-203	2.5-		46.603 d ~	β^- :100.00	4	9.833E+04	2.377E+05		LNHB
3032	80-Hg-204	0.0+								NUBASE
3033	80-Hg-205	0.5-		5.2 m 0.03	β^- :100.00	4	5.362E+05	6.886E+03		UKPADD64
3034	80-Hg-205M	6.5+	1.556E+06	1.09E-03 s 3.67	IT:100.00	0		1.556E+06		NUBASE
3035	80-Hg-206	0.0+		8.15 m 0.02	β^- :100.00	4	4.307E+05	1.020E+05		LNHB
3036	80-Hg-207	4.5+		2.9 m 0.11	β^- :54.20; β^-_{m} :45.80	0	1.399E+06	1.399E+06		NUBASE
3037	80-Hg-208	0.0+		42 m 0.20	β^- :100.00	0	1.216E+06	1.216E+06		NUBASE
3038	80-Hg-209	4.5+		37 s 21.62	β^- :100.00	0	1.763E+06	1.763E+06		NUBASE
3039	80-Hg-210	0.0+		10 m 1.67	β^- :100.00	0	1.379E+06	1.379E+06		NUBASE
3040	81-Tl-176	?		0.01 s 100	α :100.00	0			7.405E+06	NUBASE
3041	81-Tl-177	0.5+		0.018 s 27.78	α :73.00; p :27.00	0			5.473E+06	NUBASE
3042	81-Tl-178	?		0.255 s 3.92	α :26.50; α_m :26.50; β^+ :47.00	0	1.812E+06	1.812E+06	3.601E+06	NUBASE
3043	81-Tl-179	0.5+		0.27 s 11.11	α_m :70.00; β^+ :30.00	0	8.622E+05	8.622E+05	4.561E+06	NUBASE
3044	81-Tl-179M	4.5-	8.600E+05	1.6E-03 s 10	α :100.00	0			7.575E+06	NUBASE
3045	81-Tl-180	?		1.5 s 13.33	β^+ :93.00; α :3.50; α_m :3.50; β^+ , SF:~	0	3.362E+06	3.362E+06	4.648E+05	NUBASE
3046	81-Tl-181	0.5+		3.2 s 9.37	α :50.00; β^+ :50.00	0	1.310E+06	1.310E+06	3.162E+06	NUBASE
3047	81-Tl-181M	4.5-	8.500E+05	1.7E-03 s 23.53	β^+ :33.33; α_m :33.33; IT:33.33	0	9.678E+05	1.251E+06	2.321E+06	NUBASE
3048	81-Tl-182	2.0-		2 s 15	β^+ :96.00; α :4.00	0	3.272E+06	3.272E+06	2.622E+05	NUBASE
3049	81-Tl-182M	7.0+	1.000E+05	2.9 s 17.24	α :100.00	0			6.655E+06	NUBASE
3050	81-Tl-183	0.5+		6.9 s 10.14	β^+ :98.00; α :2.00	0	2.356E+06	2.356E+06	1.188E+05	NUBASE
3051	81-Tl-183M	4.5-	6.420E+05	0.06 s 25	α :1.50; β^+_{m} :49.25; IT:49.25	0	1.250E+06	1.566E+06	9.873E+04	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3052	81-Tl-184	2.0-		9.7 s 6.19	β^+ :97.90; α :2.10	0	3.087E+06	3.087E+06	1.319E+05	NUBASE
3053	81-Tl-184M	7.0+	1.000E+05	10 s 100	β^+ :50.00; IT:50.00	0	1.593E+06	1.643E+06		NUBASE
3054	81-Tl-185	0.5+		19.5 s 2.56	β^+ :50.00; α :50.00	0	1.069E+06	1.069E+06	2.843E+06	NUBASE
3055	81-Tl-185M	4.5-	4.528E+05	1.83 s 6.56	IT:99.90; α :0.10	0		4.523E+05	6.133E+03	NUBASE
3056	81-Tl-186	2.0-		40 s 100	β^+ :100.00	0	2.783E+06	2.783E+06		NUBASE
3057	81-Tl-186M	10.0-	3.740E+05	2.9 s 6.90	IT:100.00	3	6.802E+04	3.050E+05		ENSDF
3058	81-Tl-186N	10.0-	5.200E+05	2.9 s 6.90	IT _m :100.00	0		3.700E+05		NUBASE
3059	81-Tl-187	0.5+		51 s 100	β^+ :100.00	0	1.891E+06	1.891E+06		NUBASE
3060	81-Tl-187M	4.5-	3.330E+05	15.6 s 0.77	IT:49.93; β^+ :49.93; α :0.15	0	9.947E+05	1.161E+06	8.477E+03	NUBASE
3061	81-Tl-188	7.0+		1.183 m 0.02	β^+ :100.00	4	1.658E+06	2.361E+06		ENSDF
3062	81-Tl-188M	7.0+	1.000E+05	1.183 m 0.02	β^+ :100.00	0	2.651E+06	2.651E+06		NUBASE
3063	81-Tl-188N	9.0-	1.800E+05	0.041 s 9.76	IT _m :100.00	0		8.000E+04		NUBASE
3064	81-Tl-189	0.5+		2.3 m 0.14	β^+ :100.00	0	1.676E+06	1.676E+06		NUBASE
3065	81-Tl-189M	4.5-	2.576E+05	1.4 m 0.12	β^+ :96.00; IT:4.00	0	1.659E+06	1.670E+06		NUBASE
3066	81-Tl-190	2.0-		2.6 m 0.19	β^+ :100.00	0	2.347E+06	2.347E+06		NUBASE
3067	81-Tl-190M	7.0+	1.300E+05	3.7 m 0.14	β^+ :100.00	0	2.390E+06	2.390E+06		NUBASE
3068	81-Tl-191	0.5+		20 m 1.67	β^+ :100.00	0	1.437E+06	1.437E+06		NUBASE
3069	81-Tl-191M	4.5-	2.970E+05	5.22 m 0.05	β^+ :100.00	0	1.494E+06	1.494E+06		NUBASE
3070	81-Tl-192	2.0-		9.6 m 0.07	β^+ :100.00	0	2.047E+06	2.047E+06		NUBASE
3071	81-Tl-192M	7.0+	1.600E+05	10.8 m 0.03	β^+ :100.00	0	2.100E+06	2.100E+06		NUBASE
3072	81-Tl-193	0.5+		21.8 m 0.05	β^+ :100.00	4	9.434E+04	5.559E+05		UKPADD64
3073	81-Tl-193M	4.5-	3.690E+05	2.11 m 0.12	β^+ :25.00; IT:75.00	4	1.092E+05	3.635E+05		UKPADD64
3074	81-Tl-194	2.0-		33 m 0.03	β^+ :100.00; α :~	0	1.788E+06	1.788E+06	3.626E-03	NUBASE
3075	81-Tl-194M	7.0+	3.000E+05	32.8 m 0.01	β^+ :100.00	0	1.888E+06	1.888E+06		NUBASE
3076	81-Tl-195	0.5+		1.16 h ~	β^+ :100.00	0	9.483E+05	9.483E+05		NUBASE
3077	81-Tl-195M	4.5-	4.826E+05	3.6 s 11.11	IT:100.00	0		4.826E+05		NUBASE
3078	81-Tl-196	2.0-		1.84 h ~	β^+ :100.00	4	1.710E+05	1.496E+06		ENSDF
3079	81-Tl-196M	7.0+	3.942E+05	1.41 h ~	β^+ :95.50; IT:4.50	0	1.504E+06	1.522E+06		NUBASE
3080	81-Tl-197	0.5+		2.84 h ~	β^+ :100.00	4	4.627E+04	4.566E+05		ENSDF
3081	81-Tl-197M	4.5-	6.083E+05	0.54 s 1.85	IT:100.00	3	1.689E+05	4.354E+05		ENSDF
3082	81-Tl-198	2.0-		5.3 h ~	β^+ :100.00	4	3.195E+04	1.984E+06		ENSDF
3083	81-Tl-198M	7.0+	5.435E+05	1.87 h ~	β^+ :54.00; IT:46.00	4	1.847E+05	1.171E+06		ENSDF
3084	81-Tl-198N	10.0-	7.423E+05	0.032 s 3.12	IT _m :100.00	0		1.988E+05		NUBASE
3085	81-Tl-199	0.5+		7.42 h ~	β^+ :100.00	4	5.230E+04	2.510E+05		ENSDF
3086	81-Tl-199M	4.5-	7.495E+05	0.028 s 0.70	IT:100.00	3	9.447E+04	6.572E+05		ENSDF
3087	81-Tl-200	2.0-		1.087 d ~	β^+ :100.00	4	3.392E+04	1.310E+06		ENSDF
3088	81-Tl-200M	7.0+	7.536E+05	0.034 s 2.92	IT:100.00	0		7.536E+05		NUBASE
3089	81-Tl-201	0.5+		3.041 d ~	β^+ :100.00	4	3.739E+04	9.491E+04		LNHB
3090	81-Tl-201M	4.5-	9.195E+05	2.035E-03 s 0.34	IT:100.00	0		9.195E+05		NUBASE
3091	81-Tl-202	2.0-		12.24 d ~	β^+ :100.00	4	2.251E+04	4.665E+05		UKPADD64
3092	81-Tl-203	0.5+								NUBASE
3093	81-Tl-204	2.0-		3.788 y ~	β^+ :2.92; β^- :97.08	4	2.369E+05	1.278E+03		LNHB
3094	81-Tl-205	0.5+								NUBASE
3095	81-Tl-206	0.0-		4.202 m 0.01	β^- :100.00	4	5.361E+05	2.571E+03		UKHEDD24
3096	81-Tl-206M	12.0-	2.643E+06	3.76 m 0.02	IT:100.00	3	1.533E+05	2.489E+06		UKHEDD24

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3097	81-Tl-207	0.5+		4.77 m 0.01	β^- :100.00	4	4.914E+05	3.341E+03		UKHEDD24
3098	81-Tl-207M	5.5-	1.341E+06	1.33 s 8.27	IT:100.00	3	1.837E+05	1.157E+06		UKHEDD24
3099	81-Tl-208	5.0+		3.053 m ~	β^- :100.00	4	5.847E+05	3.384E+06		LNHB
3100	81-Tl-209	0.5+		2.2 m 0.05	β^- :100.00	4	6.849E+05	2.122E+06		UKHEDD24
3101	81-Tl-210	5.0+		1.3 m 0.04	β^- :99.99; β^- ,n:0.01	5	1.092E+06	2.727E+06	5.791E+02	UKHEDD24
3102	81-Tl-211	0.5+		1 m 1.67	β^- :100.00	0	1.470E+06	1.470E+06		NUBASE
3103	81-Tl-212	5.0+		30 s 100	β^- :100.00	0	1.966E+06	1.966E+06		NUBASE
3104	82-Pb-178	0.0+		2.3E-04 s 65.22	α :100.00	0			7.790E+06	NUBASE
3105	82-Pb-179	2.5-		3E-03 s 100	α :100.00	0			7.565E+06	NUBASE
3106	82-Pb-180	0.0+		5E-03 s 60	α :100.00	0			7.415E+06	NUBASE
3107	82-Pb-181	2.5-		0.045 s 44.44	α :98.00; β^+ :1.00; β^+_{m} :1.00	0	6.157E+04	6.157E+04	7.071E+06	NUBASE
3108	82-Pb-182	0.0+		0.06 s 66.67	α :98.00; β^+ :2.00	0	4.349E+04	4.349E+04	6.925E+06	NUBASE
3109	82-Pb-183	1.5-		0.535 s 5.61	α :90.00; β^+ :10.00	0	3.006E+05	3.006E+05	6.235E+06	NUBASE
3110	82-Pb-183M	6.5+	9.400E+04	0.415 s 4.82	α :100.00	0			7.022E+06	NUBASE
3111	82-Pb-184	0.0+		0.49 s 5.10	α :80.00; β^+ :20.00	0	3.897E+05	3.897E+05	5.420E+06	NUBASE
3112	82-Pb-185	1.5-		6.3 s 6.35	α :50.00; β^+ :50.00	0	1.370E+06	1.370E+06	3.348E+06	NUBASE
3113	82-Pb-185M	6.5+	6.000E+04	4.07 s 3.69	α :50.00; β^+_{m} :50.00	0	1.304E+06	1.304E+06	3.378E+06	NUBASE
3114	82-Pb-186	0.0+		4.82 s 0.62	β^+ :60.00; α :40.00	0	1.102E+06	1.102E+06	2.588E+06	NUBASE
3115	82-Pb-187	1.5-		15.2 s 1.97	β^+ :93.00; α :7.00	0	2.314E+06	2.314E+06	4.477E+05	NUBASE
3116	82-Pb-187M	6.5+	1.100E+04	18.3 s 1.64	β^+_{m} :88.00; α_m :12.00	0	2.095E+06	2.095E+06	7.399E+05	NUBASE
3117	82-Pb-188	0.0+		25.5 s 0.39	β^+ :90.70; α :9.30	0	1.371E+06	1.371E+06	5.681E+05	NUBASE
3118	82-Pb-189	1.5-		51 s 5.88	β^+ :99.60; α :0.40	0	2.232E+06	2.232E+06	2.363E+04	NUBASE
3119	82-Pb-189M	6.5+	4.000E+04	1 m 1.67	β^+_{m} :50.00; IT:50.00	0	1.084E+06	1.104E+06		NUBASE
3120	82-Pb-190	0.0+		1.183 m 0.02	β^+ :99.60; α :0.40	0	1.299E+06	1.299E+06	2.279E+04	NUBASE
3121	82-Pb-191	1.5-		1.33 m 0.10	β^+ :98.97; β^+_{m} :1.02; α :0.01	0	2.009E+06	2.009E+06	7.076E+02	NUBASE
3122	82-Pb-191M	6.5+		2.18 m 0.06	β^+_{m} :99.98; α_m :0.02	0	1.911E+06	1.911E+06	1.083E+03	NUBASE
3123	82-Pb-192	0.0+		3.5 m 0.05	β^+ :99.99; α :0.01	0	1.105E+06	1.105E+06	3.080E+02	NUBASE
3124	82-Pb-193	1.5-		5 m 1.67	β^+ :100.00	0	1.710E+06	1.710E+06		NUBASE
3125	82-Pb-193M	6.5+	1.300E+05	5.8 m 0.06	β^+ :95.30; β^+_{m} :4.70	0	1.748E+06	1.748E+06		NUBASE
3126	82-Pb-194	0.0+		12 m 0.07	α :~; β^+ :100.00	5	7.288E+04	1.035E+06	3.387E-01	ENSDF
3127	82-Pb-195	1.5-		15 m 1.67	β^+ :100.00	0	1.480E+06	1.480E+06		NUBASE
3128	82-Pb-195M	6.5+	2.029E+05	15 m 0.13	β^+ :56.00; β^+_{m} :44.00	0	1.477E+06	1.477E+06		NUBASE
3129	82-Pb-196	0.0+		37 m 0.14	β^+ :100.00; α :~	0	7.120E+05	7.120E+05	1.268E+00	NUBASE
3130	82-Pb-197	1.5-		8 m 0.42	β^+ :100.00	4	7.505E+04	1.414E+06		ENSDF
3131	82-Pb-197M	6.5+	3.193E+05	43 m 0.04	β^+ :40.50; β^+_{m} :40.50; IT:19.00; α_m :~	0	9.739E+05	1.035E+06	1.217E+01	NUBASE
3132	82-Pb-198	0.0+		2.4 h ~	β^+ :100.00	4	7.052E+04	4.372E+05		ENSDF
3133	82-Pb-199	1.5-		1.5 h ~	β^+ :100.00	4	5.081E+04	9.599E+05		ENSDF
3134	82-Pb-199M	6.5+	4.295E+05	12.2 m 0.04	IT:93.00; β^+_{m} :7.00	0	5.859E+04	4.580E+05		NUBASE
3135	82-Pb-200	0.0+		21.5 h ~	β^+ :100.00	4	9.079E+04	2.080E+05		ENSDF
3136	82-Pb-201	2.5-		9.4 h ~	β^+ :100.00	4	5.828E+04	7.680E+05		UKPADD64
3137	82-Pb-201M	6.5+	6.291E+05	1.017 m 0.08	IT:100.00	3	2.622E+05	3.661E+05		UKPADD64
3138	82-Pb-202	0.0+		5.3E+04 y ~	β^+ :100.00	3	9.283E+03	6.997E+04		UKPADD64
3139	82-Pb-202M	9.0-	2.170E+06	3.57 h ~	β^+ :9.10; IT:90.90	4	1.385E+05	1.976E+06		UKPADD64

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3140	82-Pb-203	2.5-		2.162 d ~	β^+ :100.00	4	4.754E+04	3.145E+05		LNHB
3141	82-Pb-203M	6.5+	8.252E+05	6.29 s 1.91	IT:100.00	3	1.712E+05	6.541E+05		UKPADD64
3142	82-Pb-203N	14.5-	2.950E+06	0.48 s 4.17	IT _m :100.00	3	2.164E+05	1.907E+06		UKPADD64
3143	82-Pb-204	0.0+		1.4E+17 y ~	α :100.00	1			1.972E+06	UKPADD64
3144	82-Pb-204M	9.0-	2.186E+06	1.125 h ~	IT:100.00	3	1.033E+05	2.081E+06		UKPADD64
3145	82-Pb-205	2.5-		1.53E+07 y ~	β^+ :100.00	3	8.953E+03	5.929E+04		UKHEDD24
3146	82-Pb-205M	6.5+	1.014E+06	5.55E-03 s 0.36	IT:100.00	0		1.014E+06		NUBASE
3147	82-Pb-206	0.0+								NUBASE
3148	82-Pb-207	0.5-								NUBASE
3149	82-Pb-207M	6.5+	1.633E+06	0.806 s 0.74	IT:100.00	0		1.633E+06		NUBASE
3150	82-Pb-208	0.0+								NUBASE
3151	82-Pb-209	4.5+		3.253 h ~	β^- :100.00	1	1.973E+05			UKHEDD24
3152	82-Pb-210	0.0+		22.16 y ~	β^- :100.00; α :~	5	4.072E+04	4.822E+03	7.205E-02	UKHEDD24
3153	82-Pb-211	4.5+		36.1 m 0.01	β^- :100.00	4	4.491E+05	6.845E+04		UKHEDD24
3154	82-Pb-212	0.0+		10.64 h ~	β^- :100.00	4	1.687E+05	1.447E+05		LNHB
3155	82-Pb-213	4.5+		10.2 m 0.05	β^- :100.00	0	6.823E+05	6.823E+05		NUBASE
3156	82-Pb-214	0.0+		26.8 m 0.06	β^- :100.00	4	2.925E+05	2.372E+05		LNHB
3157	82-Pb-215	2.5+		36 s 2.78	β^- :100.00	0	9.437E+05	9.437E+05		NUBASE
3158	83-Bi-184	3.0+		6.6E-03 s 22.73	α :100.00	0			8.025E+06	NUBASE
3159	83-Bi-184M	10.0-	1.500E+05	0.013 s 15.38	α :100.00	0			8.175E+06	NUBASE
3160	83-Bi-185	4.5-		2E-03 s 100	p :85.00; α_m :15.00	0			2.412E+06	NUBASE
3161	83-Bi-186	3.0+		0.015 s 4.73	α :100.00	0			7.755E+06	NUBASE
3162	83-Bi-186M	10.0-	2.500E+05	9.8E-03 s 13.27	α_m :100.00	0			7.905E+06	NUBASE
3163	83-Bi-187	4.5-		0.032 s 9.38	α_m :50.00; β_m :50.00	0	1.433E+06	1.433E+06	3.574E+06	NUBASE
3164	83-Bi-187M	0.5+	1.020E+05	3.2E-04 s 21.88	α :50.00; β +:50.00	0	1.452E+06	1.452E+06	3.946E+06	NUBASE
3165	83-Bi-188	3.0+		0.044 s 6.82	α :50.00; β +:50.00	0	1.769E+06	1.769E+06	3.633E+06	NUBASE
3166	83-Bi-188M	10.0-	2.100E+05	0.22 s 18.18	α_m :50.00; β +:50.00	0	1.804E+06	1.804E+06	3.688E+06	NUBASE
3167	83-Bi-189	4.5-		0.674 s 1.63	α :2.50; α_m :47.50; β_m :50.00	0	1.297E+06	1.297E+06	3.422E+06	NUBASE
3168	83-Bi-189M	0.5+	1.850E+05	6.6E-03 s 9.09	α :50.00; β +:50.00	0	1.334E+06	1.334E+06	3.730E+06	NUBASE
3169	83-Bi-190	3.0+		6.3 s 1.59	α :77.00; β +:23.00	0	7.296E+05	7.296E+05	5.286E+06	NUBASE
3170	83-Bi-190M	10.0-	2.500E+05	6.2 s 1.61	α_n :70.00; β +:30.00	0	9.767E+05	9.767E+05	4.617E+06	NUBASE
3171	83-Bi-191	4.5-		12.3 s 4.07	α_m :60.00; β_m :40.00	0	9.347E+05	9.347E+05	3.868E+06	NUBASE
3172	83-Bi-191M	0.5+	2.440E+05	0.124 s 4.03	α :75.00; β +:25.00	0	6.045E+05	6.045E+05	5.267E+06	NUBASE
3173	83-Bi-192	3.0+		34.6 s 2.60	β +:88.00; α :12.00	0	2.642E+06	2.642E+06	7.650E+05	NUBASE
3174	83-Bi-192M	10.0-	2.000E+04	39.6 s 1.01	β +:90.00; α_m :9.71; α_n :0.29	0	2.708E+06	2.708E+06	6.293E+05	NUBASE
3175	83-Bi-193	4.5-		1.117 m 0.07	β_m :96.50; α :0.15; α_m :3.35	0	1.990E+06	1.990E+06	2.120E+05	NUBASE
3176	83-Bi-193M	0.5+	3.080E+05	3.2 s 18.75	α :90.00; β +:10.00	0	2.208E+05	2.208E+05	5.951E+06	NUBASE
3177	83-Bi-194	3.0+		1.583 m 0.05	β +:99.54; α :0.46	0	2.727E+06	2.727E+06	2.721E+04	NUBASE
3178	83-Bi-194M	?	1.100E+05	2.083 m 0.03	β +:100.00	0	2.776E+06	2.776E+06		NUBASE
3179	83-Bi-194N	10.0-	2.300E+05	1.917 m 0.06	β +:99.80; α_m :0.20	0	2.810E+06	2.810E+06	1.203E+04	NUBASE
3180	83-Bi-195	4.5-		3.05 m 0.04	β_m :99.97; α_m :0.03	0	1.828E+06	1.828E+06	1.661E+03	NUBASE
3181	83-Bi-195M	0.5+	3.990E+05	1.45 m 0.02	β +:67.00; α :33.00	0	1.360E+06	1.360E+06	2.056E+06	NUBASE
3182	83-Bi-196	3.0+		5.1 m 0.07	β +:100.00; α :~	0	2.451E+06	2.451E+06	6.252E+01	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3183	83-Bi-196M	7.0+	1.670E+05	0.6 s	83.33	IT:50.00; β +:50.00	0	1.253E+06	1.337E+06		NUBASE
3184	83-Bi-196N	10.0-	2.700E+05	4 m	0.02	β +:74.20; IT _m :25.80; α _m :~	0	1.885E+06	1.912E+06	2.108E+01	NUBASE
3185	83-Bi-197	4.5-		9.3 m	0.09	β _m :100.00; α _m :~	0	1.581E+06	1.581E+06	4.838E+00	NUBASE
3186	83-Bi-197M	0.5+	3.600E+05	5.04 m	0.05	α :54.84; β +:44.87; IT:0.30	0	8.107E+05	8.118E+05	3.053E+06	NUBASE
3187	83-Bi-198	?		10.3 m	0.05	β +:100.00	0	2.227E+06	2.227E+06		NUBASE
3188	83-Bi-198M	7.0+	2.800E+05	11.6 m	0.04	β +:100.00	0	2.320E+06	2.320E+06		NUBASE
3189	83-Bi-198N	10.0-	5.300E+05	7.7 s	6.49	IT _m :100.00	0		2.500E+05		NUBASE
3190	83-Bi-199	4.5-		27 m	0.06	β +:53.90; β _m :46.10	0	1.411E+06	1.411E+06		NUBASE
3191	83-Bi-199M	0.5+	6.670E+05	24.7 m	0.01	β +:97.99; IT:2.00; α :0.01	0	1.665E+06	1.678E+06	5.599E+02	NUBASE
3192	83-Bi-200	7.0+		36.4 m	0.02	β +:100.00	0	1.958E+06	1.958E+06		NUBASE
3193	83-Bi-200M	2.0+	1.000E+05	31 m	0.11	β +:90.00; IT:10.00	0	1.792E+06	1.802E+06		NUBASE
3194	83-Bi-200N	10.0-	4.282E+05	0.4 s	12.50	IT:100.00	0		4.282E+05		NUBASE
3195	83-Bi-201	4.5-		1.8 h ~		β +:55.30; β _m :44.70; α _m :~	0	1.187E+06	1.187E+06	3.892E+00	NUBASE
3196	83-Bi-201M	0.5+	8.463E+05	59.1 m	0.02	β +:46.45; β _m :46.45; IT:6.80; α :0.30	0	1.354E+06	1.412E+06	1.604E+04	NUBASE
3197	83-Bi-202	5.0+		1.72 h ~		β +:100.00; β _m :~	4	1.365E+05	2.460E+06		ENSDF
3198	83-Bi-203	4.5-		11.76 h ~		β +:80.00; β _m :20.00; α _m :~	0	1.027E+06	1.027E+06	3.344E-01	NUBASE
3199	83-Bi-203M	0.5+	1.098E+06	0.303 s	1.65	IT:100.00	0		1.098E+06		NUBASE
3200	83-Bi-204	6.0+		11.22 h ~		β +:91.10; β _m :8.90	0	1.416E+06	1.416E+06		NUBASE
3201	83-Bi-204M	10.0-	8.055E+05	0.013 s	0.77	IT:100.00	0		8.055E+05		NUBASE
3202	83-Bi-204N	17.0+	2.833E+06	1.07E-03 s	2.80	IT _m :100.00	0		2.028E+06		NUBASE
3203	83-Bi-205	4.5-		15.31 d ~		β +:85.80; β _m :14.20	0	8.547E+05	8.547E+05		NUBASE
3204	83-Bi-206	6.0+		6.243 d ~		β +:100.00	4	1.238E+05	3.274E+06		ENSDF
3205	83-Bi-207	4.5-		31.76 y ~		β +:100.00	4	1.185E+05	1.540E+06		UKPADD64
3206	83-Bi-208	5.0+		3.68E+05 y ~		β +:100.00	4	8.518E+03	2.657E+06		UKPADD64
3207	83-Bi-208M	10.0-	1.571E+06	2.58E-03 s	1.55	IT:100.00	3	7.229E+04	1.501E+06		ENSDF
3208	83-Bi-209	4.5-		1.9E+19 y ~		α :100.00	0			3.137E+06	NUBASE
3209	83-Bi-210	1.0-		5.012 d ~		β -:100.00; α :~	5	3.877E+05	6.767E+02	6.266E+00	UKHEDD24
3210	83-Bi-210M	9.0-	2.650E+05	3E+06 y ~		α :100.00	4	4.694E+04	2.611E+05	5.009E+06	UKHEDD24
3211	83-Bi-211	4.5-		2.17 m	0.03	β -:0.27; α :99.73	5	1.006E+04	4.758E+04	6.675E+06	UKHEDD24
3212	83-Bi-212	1.0-		1.009 h ~		β -:64.06; β -, α :0.01; α :35.93	5	5.026E+05	1.073E+05	2.217E+06	UKHEDD24
3213	83-Bi-212M	9.0-	2.500E+05	25 m	0.07	β -:3.20; β -, α :30.00; α :66.80	5	1.337E+05	6.048E+04	7.423E+06	UKHEDD24
3214	83-Bi-212N	17.0-	3.930E+06	9 m	0.19	β _m :100.00	1	1.257E+06	5.061E+03		UKHEDD24
3215	83-Bi-213	4.5-		45.59 m ~		β -:97.84; α :2.16	5	4.444E+05	1.292E+05	1.287E+05	UKHEDD24
3216	83-Bi-214	1.0-		19.9 m	0.03	β -:99.98; α :0.02	5	6.286E+05	1.540E+06	1.168E+03	UKHEDD24
3217	83-Bi-215	4.5-		7.4 m	0.14	β -:100.00	0	7.507E+05	7.507E+05		UKHEDD24
3218	83-Bi-215M	12.5-	1.348E+06	36.9 s	1.63	IT:50.00; β -:50.00	0	5.895E+05	1.263E+06		NUBASE
3219	83-Bi-216	1.0-		2.17 m	0.04	β -:100.00	0	1.363E+06	1.363E+06		NUBASE
3220	83-Bi-217	4.5-		1.642 m	0.01	β -:100.00	0	9.730E+05	9.730E+05		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3221	83-Bi-218	1.0-		33 s 3.03	β^- :100.00	0	1.661E+06	1.661E+06		NUBASE
3222	84-Po-188	0.0+		4.3E-04 s 41.86	α :50.00; β^+ :50.00	0	1.110E+06	1.110E+06	4.041E+06	NUBASE
3223	84-Po-189	1.5-		5E-03 s 20	α :25.00; α_m :25.00; β_m :50.00	0	1.410E+06	1.410E+06	3.836E+06	NUBASE
3224	84-Po-190	0.0+		2.45E-03 s 2.04	α :100.00	2			7.680E+06	ENSDF
3225	84-Po-191	1.5-		0.022 s 4.55	α :100.00	0			7.501E+06	NUBASE
3226	84-Po-191M	6.5+	3.400E+04	0.098 s 8.16	α_m :100.00	0			7.524E+06	NUBASE
3227	84-Po-192	0.0+		0.033 s 4.22	α :99.50	2			7.267E+06	ENSDF
3228	84-Po-193	1.5-		0.42 s 9.52	α :100.00	2			7.092E+06	ENSDF
3229	84-Po-193M	6.5+	1.000E+05	0.24 s 4.17	α :100.00	2			7.145E+06	ENSDF
3230	84-Po-194	0.0+		0.392 s 1.02	α :100.00	0			6.987E+06	NUBASE
3231	84-Po-195	1.5-		4.64 s 1.94	α :75.00; β_m :25.00	0	5.462E+05	5.462E+05	5.066E+06	NUBASE
3232	84-Po-195M	6.5+	8.000E+04	1.92 s 1.04	α_m :89.99; β^+ :10.00; IT:0.01	0	2.344E+05	2.345E+05	6.151E+06	NUBASE
3233	84-Po-196	0.0+		5.56 s 2.16	α :94.00; β^+ :6.00	0	9.070E+04	9.070E+04	6.258E+06	NUBASE
3234	84-Po-197	1.5-		53.6 s 1.87	β_m :56.00; α :44.00	0	1.114E+06	1.114E+06	2.818E+06	NUBASE
3235	84-Po-197M	6.5+	2.300E+05	25.8 s 0.39	α_m :84.00; β^+ :15.99; IT:0.01	0	3.495E+05	3.496E+05	5.464E+06	NUBASE
3236	84-Po-198	0.0+		1.77 m 0.03	α :57.00; β^+ :43.00	0	5.584E+05	5.584E+05	3.597E+06	NUBASE
3237	84-Po-199	1.5-		5.48 m 0.05	β_m :92.50; α :7.50	0	1.516E+06	1.516E+06	4.556E+05	NUBASE
3238	84-Po-199M	6.5+	3.120E+05	4.17 m 0.02	β^+ :73.50; α_m :24.00; IT:2.50	0	1.444E+06	1.452E+06	1.484E+06	NUBASE
3239	84-Po-200	0.0+		11.5 m 0.01	β_m :88.90; α :11.10	0	9.826E+05	9.826E+05	6.640E+05	NUBASE
3240	84-Po-201	1.5-		15.3 m 0.02	β_m :98.40; α :1.60	0	1.327E+06	1.327E+06	9.279E+04	NUBASE
3241	84-Po-201M	6.5+	4.241E+05	8.9 m 0.04	IT:56.06; β^+ :41.04; α_m :2.90	0	7.271E+05	9.649E+05	1.714E+05	NUBASE
3242	84-Po-202	0.0+		44.7 m 0.02	β^+ :98.08; α :1.92	0	9.184E+05	9.184E+05	1.095E+05	NUBASE
3243	84-Po-203	2.5-		36.7 m 0.02	α :0.11; β^+ :99.89	5	1.363E+05	1.381E+06	5.981E+03	ENSDF
3244	84-Po-203M	6.5+	6.415E+05	45 s 4.44	IT:99.96; α_m :0.04	0		6.412E+05	2.283E+03	NUBASE
3245	84-Po-204	0.0+		3.53 h ~	β^+ :49.67; β_m :49.67; α :0.66	0	6.392E+05	6.392E+05	3.620E+04	NUBASE
3246	84-Po-205	2.5-		1.66 h ~	α :0.04; β^+ :99.90	5	5.259E+04	1.459E+06	2.090E+03	ENSDF
3247	84-Po-205M	9.5-	1.461E+06	0.057 s 1.57	IT:100.00	0		1.461E+06		NUBASE
3248	84-Po-206	0.0+		8.8 d ~	β^+ :94.55; α :5.45	0	5.818E+05	5.818E+05	2.903E+05	NUBASE
3249	84-Po-207	2.5-		5.8 h ~	α :0.02; β^+ :99.98	5	4.202E+04	1.274E+06	1.073E+03	ENSDF
3250	84-Po-207M	9.5-	1.383E+06	2.79 s 2.87	IT:100.00	3	2.848E+05	1.075E+06		ENSDF
3251	84-Po-208	0.0+		2.93 y ~	β^+ :~; α :100.00	5	2.860E+00	1.721E+01	5.215E+06	UKPADD64
3252	84-Po-209	0.5-		102.002 y ~	β^+ :0.26; α :99.74	5	4.443E+02	5.150E+03	4.964E+06	UKHEDD24
3253	84-Po-210	0.0+		138.388 d ~	α :100.00	4	9.327E-02	9.725E+00	5.408E+06	UKHEDD24
3254	84-Po-211	4.5+		0.516 s 0.58	α :100.00	4	1.573E+02	7.747E+03	7.586E+06	UKHEDD24
3255	84-Po-211M	12.5+	1.463E+06	25.5 s 1.18	α :100.00	4	1.007E+04	1.490E+06	7.550E+06	UKHEDD24
3256	84-Po-212	0.0+		2.98E-07 s 1.01	α :100.00	1			8.955E+06	LNHB
3257	84-Po-212M	18.0+	2.922E+06	45.1 s 1.33	α :100.00	4	3.770E+02	9.123E+04	1.178E+07	UKHEDD24
3258	84-Po-213	4.5+		4.2E-06 s 19.05	α :100.00	4	7.491E-01	2.344E+01	8.536E+06	UKHEDD24
3259	84-Po-214	0.0+		1.637E-04 s 0.12	α :100.00	4	8.284E-01	8.419E+01	7.833E+06	UKHEDD24
3260	84-Po-215	4.5+		1.78E-03 s 0.56	β^- :~; α :100.00	5	3.148E+01	2.157E+02	7.526E+06	UKHEDD24

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3261	84-Po-216	0.0+		0.15 s 3.33	α :100.00	4	1.468E-01	1.531E+01	6.907E+06	UKHEDD24
3262	84-Po-217	2.5+		1.47 s 3.40	α :95.00; β^- :5.00	0	2.508E+04	2.508E+04	6.327E+06	NUBASE
3263	84-Po-218	0.0+		3.098 m ~	β^- :0.02; α :99.98	5	1.369E+01	9.213E+00	6.114E+06	UKHEDD24
3264	84-Po-219	3.5+		2 m 1.67	β^- :50.00; α :50.00	0	4.005E+05	4.005E+05	2.948E+06	NUBASE
3265	84-Po-220	0.0+		40 s 100	β^- :100.00	0	3.733E+05	3.733E+05		NUBASE
3266	85-At-193	4.5-		0.04 s 100	α :100.00	0			7.485E+06	NUBASE
3267	85-At-194	3.0+		0.04 s 100	α :100.00	0			7.285E+06	NUBASE
3268	85-At-194M	10.0-	2.500E+05	0.25 s 100	α_m :100.00	0			7.285E+06	NUBASE
3269	85-At-195	4.5-		0.328 s 6.10	α :100.00	0			7.339E+06	NUBASE
3270	85-At-195M	0.5+		0.147 s 3.40	α_m :75.00; β^+ :25.00	0	6.328E+05	6.328E+05	5.321E+06	NUBASE
3271	85-At-196	3.0+		0.253 s 3.56	α :96.00; β^+ :4.00	0	1.274E+05	1.274E+05	6.917E+06	NUBASE
3272	85-At-196M	10.0-	2.000E+05	0.02 s 100	IT:100.00	0		2.000E+05		NUBASE
3273	85-At-197	4.5-		0.35 s 11.43	α :96.00; β_m^+ :4.00	0	9.053E+04	9.053E+04	6.824E+06	NUBASE
3274	85-At-197M	0.5+	5.000E+04	3.7 s 67.57	α_m :100.00; IT:~	0		2.000E+00	6.850E+06	NUBASE
3275	85-At-198	3.0+		4.2 s 7.14	α :94.00; β^+ :6.00	0	1.761E+05	1.761E+05	6.481E+06	NUBASE
3276	85-At-198M	10.0-	3.300E+05	1 s 20	α_n :86.00; β^+ :14.00	0	4.262E+05	4.262E+05	6.016E+06	NUBASE
3277	85-At-199	4.5-		7.2 s 6.94	α :89.00; β_m^+ :11.00	0	2.230E+05	2.230E+05	6.033E+06	NUBASE
3278	85-At-200	3.0+		43.2 s 2.08	α :57.00; β^+ :43.00	0	1.142E+06	1.142E+06	3.760E+06	NUBASE
3279	85-At-200M	7.0+	1.130E+05	47 s 2.13	α_m :43.00; β^+ :28.50; IT:28.50	0	7.675E+05	7.997E+05	2.813E+06	NUBASE
3280	85-At-200N	10.0-	3.440E+05	3.5 s 5.71	IT _m :84.85; α_n :10.61; β^+ :4.55	0	1.259E+05	3.219E+05	7.074E+05	NUBASE
3281	85-At-201	4.5-		1.417 m 0.06	α :71.00; β_m^+ :29.00	0	5.135E+05	5.135E+05	4.597E+06	NUBASE
3282	85-At-202	?		3.067 m 0.01	β^+ :82.00; α :18.00	0	2.004E+06	2.004E+06	1.144E+06	NUBASE
3283	85-At-202M	7.0+	1.900E+05	3.033 m 0.02	IT:45.65; β^+ :45.65; α_m :8.70	0	1.145E+06	1.231E+06	5.449E+05	NUBASE
3284	85-At-202N	10.0-	5.800E+05	0.46 s 10.87	IT _m :99.65; β^+ :0.25; α_n :0.10	0	6.594E+03	3.952E+05	6.147E+03	NUBASE
3285	85-At-203	4.5-		7.4 m 0.05	β^+ :34.50; β_m^+ :34.50; α :31.00	0	1.109E+06	1.109E+06	1.925E+06	NUBASE
3286	85-At-204	7.0+		9.2 m 0.04	β^+ :96.20; α :3.80	0	2.071E+06	2.071E+06	2.307E+05	NUBASE
3287	85-At-204M	10.0-	5.873E+05	0.108 s 9.26	IT:100.00	0		5.873E+05		NUBASE
3288	85-At-205	4.5-		26.9 m ~	β^+ :45.00; β_m^+ :45.00; α :10.00	0	1.142E+06	1.142E+06	6.019E+05	NUBASE
3289	85-At-206	5.0+		30 m 0.03	α :0.89; β^+ :99.11	5	3.030E+05	2.303E+06	5.180E+04	ENSDF
3290	85-At-207	4.5-		1.8 h ~	β^+ :91.40; α :8.60	0	1.189E+06	1.189E+06	5.050E+05	NUBASE
3291	85-At-208	6.0+		1.63 h ~	β^+ :99.45; α :0.55	0	1.650E+06	1.650E+06	3.163E+04	NUBASE
3292	85-At-209	4.5-		5.41 h ~	β^+ :95.90; α :4.10	0	1.114E+06	1.114E+06	2.360E+05	NUBASE
3293	85-At-210	5.0+		8.1 h ~	α :0.18; β^+ :99.83	5	6.930E+04	2.964E+06	9.558E+03	ENSDF
3294	85-At-211	4.5-		7.214 h ~	α :41.80; β^+ :58.20	5	3.065E+03	3.915E+04	2.501E+06	ENSDF
3295	85-At-212	1.0-		0.314 s 0.64	α :100.00	1			7.786E+06	ENSDF
3296	85-At-212M	9.0-	2.220E+05	0.119 s 2.52	α :100.00	3	3.142E+04	4.805E+03	7.990E+06	ENSDF
3297	85-At-213	4.5-		1.25E-07 s 4.80	α :100.00	1			9.254E+06	ENSDF
3298	85-At-214	1.0-		5.58E-07 s 1.79	α :100.00	1			8.983E+06	ENSDF
3299	85-At-215	4.5-		1E-04 s 20	α :100.00	4	1.651E+01	1.853E+02	8.178E+06	UKHEDD24
3300	85-At-216	1.0-		3E-04 s 10	α :100.00	1			7.957E+06	ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3301	85-At-217	4.5-		0.032 s	1.24	$\beta^-:0.01; \alpha:99.99$	5	8.290E+01	2.999E+02	7.199E+06	UKHEDD24
3302	85-At-218	1.0-		1.5 s	20	$\beta^-:0.10; \alpha:99.90$	5	5.247E+04	1.186E+04	6.804E+06	UKHEDD24
3303	85-At-219	2.5-		54 s	11.11	$\beta^-:3.00; \alpha:97.00$	2	1.786E+04	5.023E+01	6.195E+06	UKHEDD24
3304	85-At-220	3.0+		3.71 m	0.02	$\alpha:8.00; \beta^-:92.00$	5	1.183E+06	3.724E+05	4.843E+05	ENSDF
3305	85-At-221	1.5-		2.3 m	0.14	$\beta^-:100.00$	0	7.793E+05	7.793E+05		NUBASE
3306	85-At-222	?		54 s	18.52	$\beta^-:100.00$	0	1.475E+06	1.475E+06		NUBASE
3307	85-At-223	1.5-		50 s	14	$\beta^-:100.00$	0	1.053E+06	1.053E+06		NUBASE
3308	86-Rn-195	1.5-		6E-03 s	50	$\alpha:100.00$	0			7.699E+06	NUBASE
3309	86-Rn-195M	6.5+	5.000E+04	6E-03 s	50	$\alpha_m:100.00$	0			7.715E+06	NUBASE
3310	86-Rn-196	0.0+		3E-03 s	233.33	$\alpha:99.80$	1			7.606E+06	ENSDF
3311	86-Rn-197	1.5-		0.065 s	38.46	$\alpha:100.00$	1			7.412E+06	ENSDF
3312	86-Rn-197M	6.5+	2.000E+05	0.019 s	42.11	$\alpha:\sim; \alpha_m:100.00$	1			7.523E+06	ENSDF
3313	86-Rn-198	0.0+		0.057 s	15.79	$\alpha:99.40$	1			7.310E+06	ENSDF
3314	86-Rn-199	1.5-		0.62 s	4.84	$\alpha:94.00; \beta+:6.00$	0	1.460E+05	1.460E+05	6.698E+06	NUBASE
3315	86-Rn-199M	6.5+	1.500E+05	0.32 s	6.25	$\alpha_m:97.00; \beta+:3.00$	0	7.450E+04	7.450E+04	6.979E+06	NUBASE
3316	86-Rn-200	0.0+		1.03 s	4.85	$\alpha:98.00; \beta+:2.00$	0	3.321E+04	3.321E+04	6.902E+06	NUBASE
3317	86-Rn-201	1.5-		7 s	5.71	$\alpha:80.00; \beta+:20.00$	0	4.479E+05	4.479E+05	5.492E+06	NUBASE
3318	86-Rn-201M	6.5+	2.800E+05	3.8 s	2.63	$\alpha_m:89.99; \beta+:10.00; IT:0.01$	0	2.333E+05	2.333E+05	6.223E+06	NUBASE
3319	86-Rn-202	0.0+		9.94 s	1.81	$\alpha:86.00; \beta+:14.00$	0	2.014E+05	2.014E+05	5.825E+06	NUBASE
3320	86-Rn-203	?		43.5 s	4.83	$\alpha:66.00; \beta+:34.00$	0	6.803E+05	6.803E+05	4.376E+06	NUBASE
3321	86-Rn-203M	6.5+	3.630E+05	26.7 s	1.87	$\alpha_m:80.00; \beta+:20.00$	0	4.244E+05	4.244E+05	5.345E+06	NUBASE
3322	86-Rn-204	0.0+		1.24 m	0.04	$\alpha:73.00; \beta+:13.50; \beta+_m:13.50$	0	3.238E+05	3.238E+05	4.778E+06	NUBASE
3323	86-Rn-205	2.5-		2.8 m	0.06	$\beta+:75.40; \alpha:24.60$	0	1.323E+06	1.323E+06	1.572E+06	NUBASE
3324	86-Rn-206	0.0+		5.67 m	0.05	$\alpha:62.00; \beta+:38.00$	0	4.185E+05	4.185E+05	3.958E+06	NUBASE
3325	86-Rn-207	2.5-		9.25 m	0.03	$\beta+:79.00; \alpha:21.00$	0	1.214E+06	1.214E+06	1.313E+06	NUBASE
3326	86-Rn-208	0.0+		24.35 m	0.01	$\alpha:62.00; \beta+:38.00$	0	3.601E+05	3.601E+05	3.882E+06	NUBASE
3327	86-Rn-209	2.5-		28.5 m	0.06	$\alpha:17.00; \beta+:83.00$	5	1.118E+05	9.774E+05	1.047E+06	ENSDF
3328	86-Rn-210	0.0+		2.4 h	~	$\alpha:96.00; \beta+:4.00$	5	8.138E+03	5.881E+04	5.912E+06	ENSDF
3329	86-Rn-211	0.5-		14.6 h	~	$\beta+:72.60; \alpha:27.40$	0	6.996E+05	6.996E+05	1.634E+06	NUBASE
3330	86-Rn-212	0.0+		23.9 m	0.08	$\alpha:100.00$	1			6.384E+06	ENSDF
3331	86-Rn-213	4.5+		0.025 s	0.80	$\alpha:100.00$	1			8.238E+06	ENSDF
3332	86-Rn-214	0.0+		2.7E-07 s	7.41	$\alpha:100.00$	0			9.208E+06	NUBASE
3333	86-Rn-215	4.5+		2.3E-06 s	4.35	$\alpha:100.00$	1			8.839E+06	ENSDF
3334	86-Rn-216	0.0+		4.5E-05 s	11.11	$\alpha:100.00$	0			8.200E+06	NUBASE
3335	86-Rn-217	4.5+		5.4E-04 s	9.26	$\alpha:100.00$	4	8.395E+01	1.534E+02	7.884E+06	UKHEDD24
3336	86-Rn-218	0.0+		0.035 s	25.71	$\alpha:100.00$	4	1.399E+01	7.571E+02	7.262E+06	UKHEDD24
3337	86-Rn-219	2.5+		3.96 s	1.26	$\alpha:100.00$	4	6.673E+03	5.529E+04	6.885E+06	UKHEDD24
3338	86-Rn-220	0.0+		55.8 s	0.54	$\alpha:100.00$	4	1.452E+01	6.285E+02	6.404E+06	UKHEDD24
3339	86-Rn-221	3.5+		25 m	0.13	$\alpha:20.00; \beta^-:78.00$	5	2.775E+05	1.171E+05	1.220E+06	ENSDF
3340	86-Rn-222	0.0+		3.823 d	~	$\alpha:100.00$	4	1.097E+01	3.894E+02	5.590E+06	UKHEDD24
3341	86-Rn-223	3.5-		24.2 m	0.05	$\beta^-:100.00$	4	6.249E+05	3.301E+05		UKPADD64
3342	86-Rn-224	0.0+		1.783 h	~	$\beta^-:100.00$	0	2.600E+05	2.600E+05		NUBASE
3343	86-Rn-225	3.5-		4.66 m	0.01	$\beta^-:100.00$	0	8.933E+05	8.933E+05		NUBASE
3344	86-Rn-226	0.0+		7.4 m	0.02	$\beta^-:100.00$	0	4.667E+05	4.667E+05		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)		Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3345	86-Rn-227	2.5+		20.8 s	3.37	β^- :100.00		0	1.110E+06	1.110E+06		NUBASE
3346	86-Rn-228	0.0+		1.083 m	0.05	β^- :100.00		0	7.000E+05	7.000E+05		NUBASE
3347	87-Fr-199	1.5-		0.016 s	43.75	α :100.00		0			7.811E+06	NUBASE
3348	87-Fr-200	3.0+		0.024 s	41.67	α :100.00		0			7.615E+06	NUBASE
3349	87-Fr-200M	10.0-	2.000E+05	0.65 s	32.31	α_m :100.00		0			7.615E+06	NUBASE
3350	87-Fr-201	4.5-		0.048 s	31.25	α :100.00		1			7.538E+06	ENSDF
3351	87-Fr-202	3.0+		0.29 s	10.34	α :97.00; β^+ :3.00		0	9.415E+04	9.415E+04	7.164E+06	NUBASE
3352	87-Fr-202M	10.0-	3.300E+05	0.34 s	11.76	α_m :97.00; β^+ :3.00		0	9.745E+04	9.745E+04	7.164E+06	NUBASE
3353	87-Fr-203	4.5-		0.55 s	3.64	α :95.00; β^+ :2.50; β^+_m :2.50		0	1.140E+05	1.140E+05	6.893E+06	NUBASE
3354	87-Fr-204	3.0+		1.7 s	17.65	α :96.00; β^+ :4.00		0	1.146E+05	1.146E+05	6.884E+06	NUBASE
3355	87-Fr-204M	7.0+	5.400E+04	2.6 s	11.54	α_m :90.00; β^+ :10.00		0	2.882E+05	2.882E+05	6.401E+06	NUBASE
3356	87-Fr-204N	10.0-	3.300E+05	1.7 s	35.29	α_n :74.00; IT_m :26.00		0		7.176E+04	5.296E+06	NUBASE
3357	87-Fr-205	4.5-		3.92 s	1.02	α :99.00; β^+ :1.00		0	2.133E+04	2.133E+04	6.984E+06	NUBASE
3358	87-Fr-206	?		16 s	100	β^+ :58.00; α :42.00		0	1.522E+06	1.522E+06	2.908E+06	NUBASE
3359	87-Fr-206M	7.0+	1.900E+05	15.9 s	0.63	α_m :42.00; β^+ :29.00; IT :29.00		0	7.794E+05	8.345E+05	2.908E+06	NUBASE
3360	87-Fr-206N	10.0-	7.200E+05	0.7 s	14.29	IT_m :88.00; α_n :12.00		0		4.664E+05	8.476E+05	NUBASE
3361	87-Fr-207	4.5-		14.8 s	0.68	α :95.00; β^+ :5.00		0	9.652E+04	9.652E+04	6.553E+06	NUBASE
3362	87-Fr-208	7.0+		59.1 s	0.51	α :90.00; β^+ :10.00		0	2.326E+05	2.326E+05	6.102E+06	NUBASE
3363	87-Fr-209	4.5-		50 s	0.60	α :89.00; β^+ :11.00		0	1.892E+05	1.892E+05	6.033E+06	NUBASE
3364	87-Fr-210	6.0+		3.18 m	0.03	α :60.00; β^+ :40.00		0	8.336E+05	8.336E+05	3.989E+06	NUBASE
3365	87-Fr-211	4.5-		3.1 m	0.01	α :80.00; β^+ :20.00		0	3.065E+05	3.065E+05	5.328E+06	NUBASE
3366	87-Fr-212	5.0+		20 m	0.05	β^+ :57.00; α :43.00		0	9.732E+05	9.732E+05	2.807E+06	NUBASE
3367	87-Fr-213	4.5-		34.6 s	0.87	α :99.45; β^+ :0.55		0	3.938E+03	3.938E+03	6.867E+06	NUBASE
3368	87-Fr-214	1.0-		5E-03 s	4	α :100.00		1			8.581E+06	ENSDF
3369	87-Fr-214M	9.0-	1.220E+05	3.35E-03 s	1.49	α :100.00		1			8.664E+06	ENSDF
3370	87-Fr-215	4.5-		8.6E-08 s	5.81	α :100.00		1			9.538E+06	ENSDF
3371	87-Fr-216	1.0-		7E-07 s	2.86	α :100.00		1			9.175E+06	ENSDF
3372	87-Fr-217	4.5-		2.2E-05 s	22.73	α :100.00		1			8.472E+06	ENSDF
3373	87-Fr-218	1.0-		1E-03 s	60	α :100.00		1			7.955E+06	ENSDF
3374	87-Fr-218M	?	8.600E+04	0.022 s	2.27	α :100.00		0			8.100E+06	NUBASE
3375	87-Fr-219	4.5-		0.02 s	10	α :100.00		4	4.125E+02	3.550E+03	7.443E+06	ENSDF
3376	87-Fr-220	1.0+		27.4 s	1.09	α :99.65; β^- :0.35		5	1.372E+04	9.658E+03	6.673E+06	ENSDF
3377	87-Fr-221	2.5-		4.9 m	0.07	α :100.00		4	8.822E+03	2.982E+04	6.471E+06	UKHEDD24
3378	87-Fr-222	2.0-		14.2 m	0.04	β^- :100.00		4	7.152E+05	1.772E+05		ENSDF
3379	87-Fr-223	1.5-		21.8 m	0.03	β^- :99.99; α :0.01		5	3.791E+05	5.899E+04	3.263E+02	UKHEDD24
3380	87-Fr-224	1.0-		3.33 m	0.05	β^- :100.00		4	8.769E+05	5.353E+05		ENSDF
3381	87-Fr-225	1.5-		4 m	0.08	β^- :100.00		0	6.053E+05	6.053E+05		NUBASE
3382	87-Fr-226	1.0-		49 s	2.04	β^- :100.00		4	1.221E+06	4.361E+05		ENSDF
3383	87-Fr-227	0.5+		2.47 m	0.02	β^- :100.00		4	7.668E+05	4.349E+05		ENSDF
3384	87-Fr-228	2.0-		38 s	2.63	β^- :100.00		4	1.437E+06	6.664E+05		ENSDF
3385	87-Fr-229	0.5+		50.2 s	0.80	β^- :100.00		0	1.086E+06	1.086E+06		NUBASE
3386	87-Fr-230	?		19.1 s	2.62	β^- :100.00		0	1.694E+06	1.694E+06		NUBASE
3387	87-Fr-231	0.5+		17.6 s	3.41	β^- :100.00		4	1.373E+06	4.421E+05		ENSDF
3388	87-Fr-232	?		5 s	20	β^- :100.00		0	1.903E+06	1.903E+06		NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	<β> (eV)	<γ> (eV)	<α> (eV)	Source
3389	88-Ra-202	0.0+		2.6E-03 s 80.77	α:100.00	0			8.016E+06	NUBASE
3390	88-Ra-203	1.5-		1E-03 s 500	α:100.00	1			7.730E+06	ENSDF
3391	88-Ra-203M	1.5-	1.900E+05	0.033 s 66.67	α:100.00	1			7.768E+06	ENSDF
3392	88-Ra-204	0.0+		0.06 s 18.33	α:99.70; β+:0.30	0	5.446E+03	5.446E+03	7.612E+06	NUBASE
3393	88-Ra-205	1.5-		0.22 s 22.73	α:50.00; β+:50.00	0	1.192E+06	1.192E+06	3.743E+06	NUBASE
3394	88-Ra-205M	6.5+	2.900E+05	0.18 s 27.78	α _m :50.00; IT:50.00	0		1.450E+05	3.748E+06	NUBASE
3395	88-Ra-206	0.0+		0.24 s 8.33	α:100.00	0			7.415E+06	NUBASE
3396	88-Ra-207	?		1.3 s 15.38	α:90.00; β+:10.00	0	2.127E+05	2.127E+05	6.548E+06	NUBASE
3397	88-Ra-207M	6.5+	5.600E+05	0.057 s 14.04	IT:85.00; α _m :14.45; β+:0.55	0	1.272E+04	4.887E+05	1.080E+06	NUBASE
3398	88-Ra-208	0.0+		1.3 s 15.38	α:95.00; β+:5.00	0	7.307E+04	7.307E+04	6.909E+06	NUBASE
3399	88-Ra-209	2.5-		4.6 s 4.35	α:90.00; β+:10.00	0	1.873E+05	1.873E+05	6.422E+06	NUBASE
3400	88-Ra-210	0.0+		3.7 s 5.41	α:96.00; β+:4.00	0	5.076E+04	5.076E+04	6.866E+06	NUBASE
3401	88-Ra-211	2.5-		13 s 15.38	α:93.00; β+:7.00	0	1.165E+05	1.165E+05	6.549E+06	NUBASE
3402	88-Ra-212	0.0+		13 s 1.54	α:85.00; β+:15.00	0	1.674E+05	1.674E+05	5.977E+06	NUBASE
3403	88-Ra-213	0.5-		2.74 m 0.04	α:80.00; β+:20.00	0	2.605E+05	2.605E+05	5.490E+06	NUBASE
3404	88-Ra-213M	6.5+	1.770E+06	2.1E-03 s 4.76	α:1.00; IT:99.00	4	9.988E+04	1.635E+06	8.591E+04	ENSDF
3405	88-Ra-214	0.0+		2.46 s 1.22	α:99.94; β _m :0.06	0	1.841E+02	1.841E+02	7.270E+06	NUBASE
3406	88-Ra-215	4.5+		1.59E-03 s 5.66	α:100.00	1			8.834E+06	ENSDF
3407	88-Ra-216	0.0+		1.82E-07 s 5.49	α:100.00; β+:~	0	1.560E-06	3.120E-06	9.526E+06	NUBASE
3408	88-Ra-217	4.5+		1.6E-06 s 12.50	α:100.00	1			9.161E+06	ENSDF
3409	88-Ra-218	0.0+		2.56E-05 s 4.30	α:100.00	0			8.546E+06	NUBASE
3410	88-Ra-219	3.5+		0.01 s 30	α:100.00	4	5.652E+04	1.710E+05	7.946E+06	ENSDF
3411	88-Ra-220	0.0+		0.018 s 11.11	α:100.00	2		4.650E+03	7.589E+06	ENSDF
3412	88-Ra-221	2.5+		28 s 7.14	α:100.00	0			6.880E+06	NUBASE
3413	88-Ra-222	0.0+		38 s 1.32	α:100.00	4	8.336E+02	9.191E+03	6.667E+06	ENSDF
3414	88-Ra-223	0.5+		11.43 d ~	α:100.00	4	7.474E+04	1.343E+05	5.782E+06	UKHEDD24
3415	88-Ra-224	0.0+		3.64 d ~	α:100.00	4	2.352E+03	1.043E+04	5.776E+06	UKHEDD24
3416	88-Ra-225	1.5+		14.8 d ~	β-:100.00	4	1.078E+05	1.383E+04		UKHEDD24
3417	88-Ra-226	0.0+		1600.001 y ~	α:100.00	4	3.499E+03	7.256E+03	4.859E+06	LNHB
3418	88-Ra-227	1.5+		42.2 m 0.02	β-:100.00	0	4.427E+05	4.427E+05		NUBASE
3419	88-Ra-228	0.0+		5.75 y ~	β-:100.00	4	2.147E+04	2.005E+03		UKHEDD24
3420	88-Ra-229	2.5+		4 m 0.08	β-:100.00	1	6.134E+05			ENSDF
3421	88-Ra-230	0.0+		1.55 h ~	β-:100.00	0	2.360E+05	2.360E+05		NUBASE
3422	88-Ra-231	2.5+		1.717 m 0.05	β-:100.00	0	8.267E+05	8.267E+05		NUBASE
3423	88-Ra-232	0.0+		4.167 m 0.33	β-:100.00	0	5.000E+05	5.000E+05		NUBASE
3424	88-Ra-233	0.5+		30 s 16.67	β-:100.00	0	1.090E+06	1.090E+06		NUBASE
3425	88-Ra-234	0.0+		30 s 33.33	β-:100.00	0	7.100E+05	7.100E+05		NUBASE
3426	89-Ac-206	3.0+		0.025 s 28	α:99.80; β+:0.20	0	6.630E+03	6.630E+03	7.929E+06	NUBASE
3427	89-Ac-206M	?	8.000E+04	0.015 s 40	α:100.00	0			8.025E+06	NUBASE
3428	89-Ac-206N	10.0-	2.800E+05	0.041 s 39.02	α _m :100.00	0			7.895E+06	NUBASE
3429	89-Ac-207	4.5-		0.022 s 181.82	α:100.00	1			7.864E+06	ENSDF
3430	89-Ac-208	3.0+		0.095 s 25.26	α:99.00	1			7.644E+06	ENSDF
3431	89-Ac-208M	10.0-	5.100E+05	0.028 s 25	α _n :89.00; IT:10.00; β+:1.00	0	3.185E+04	8.285E+04	7.037E+06	NUBASE
3432	89-Ac-209	4.5-		0.1 s 50	α:99.00	1			7.656E+06	ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3433	89-Ac-210	7.0+		0.35 s	14.29	α_m :91.00; β +:9.00	0	2.499E+05	2.499E+05	6.750E+06	NUBASE
3434	89-Ac-211	?		0.25 s	20	α :100.00	1			7.625E+06	ENSDF
3435	89-Ac-212	6.0+		0.92 s	5.43	α :97.00; β +:3.00	0	7.471E+04	7.471E+04	7.299E+06	NUBASE
3436	89-Ac-213	?		0.8 s	6.25	α :100.00	1			7.505E+06	ENSDF
3437	89-Ac-214	5.0+		8.2 s	2.44	α :89.00; β +:11.00	0	2.320E+05	2.320E+05	6.542E+06	NUBASE
3438	89-Ac-215	4.5-		0.17 s	5.88	α :99.91	1			7.742E+06	ENSDF
3439	89-Ac-216	1.0-		3.3E-04 s	100	α :100.00	1			9.236E+06	ENSDF
3440	89-Ac-216M	9.0-	3.700E+04	3.3E-04 s	6.06	α :100.00	1			9.204E+06	ENSDF
3441	89-Ac-217	4.5-		6.9E-08 s	5.80	α :100.00	1			9.832E+06	ENSDF
3442	89-Ac-218	1.0-		1.08E-06 s	8.33	α :100.00	1			9.378E+06	ENSDF
3443	89-Ac-219	4.5-		1.18E-05 s	12.71	α :100.00	1			8.826E+06	ENSDF
3444	89-Ac-220	?		0.026 s	0.76	α :100.00	4	1.140E+05	1.295E+05	7.960E+06	ENSDF
3445	89-Ac-221	?		0.052 s	3.85	α :100.00	1			7.737E+06	ENSDF
3446	89-Ac-222	1.0-		5 s	10	α :99.00; β +:1.00	0	7.667E+03	7.667E+03	7.066E+06	NUBASE
3447	89-Ac-222M	?	2.000E+05	1.05 m	0.11	α :44.30; α_m :44.30; IT:10.00; β +:1.40	0	1.167E+04	3.167E+04	6.463E+06	NUBASE
3448	89-Ac-223	2.5-		2.1 m	0.04	α :99.00; β +:1.00	0	2.957E+02	5.913E+02	6.715E+06	NUBASE
3449	89-Ac-224	0.0-		2.78 h	~	α :9.10; β +:90.90	5	3.994E+04	2.310E+05	5.628E+05	ENSDF
3450	89-Ac-225	1.5-		10 d	~	α :100.00	4	2.761E+04	1.715E+04	5.868E+06	UKHEDD24
3451	89-Ac-226	1.0-		1.224 d	~	β :-83.00; β +:17.00; α :0.01	0	3.134E+05	3.188E+05	3.321E+02	NUBASE
3452	89-Ac-227	1.5-		21.773 y	~	β :-98.62; α :1.38	5	1.481E+04	5.624E+02	6.933E+04	UKHEDD24
3453	89-Ac-228	3.0+		6.15 h	~	β :-100.00	4	4.402E+05	9.632E+05		UKHEDD24
3454	89-Ac-229	1.5+		1.045 h	~	β :-50.00; β_m :50.00	0	3.878E+05	3.878E+05		NUBASE
3455	89-Ac-230	1.0+		2.033 m	0.04	β :-100.00	4	9.098E+05	5.011E+05		ENSDF
3456	89-Ac-231	0.5+		7.5 m	0.02	β :-100.00	4	6.289E+05	4.168E+05		ENSDF
3457	89-Ac-232	1.0+		1.983 m	0.07	β :-100.00	4	9.840E+05	1.148E+06		ENSDF
3458	89-Ac-233	0.5+		2.417 m	0.11	β :-100.00	4	9.207E+05	4.986E+05		ENSDF
3459	89-Ac-234	?		44 s	15.91	β :-100.00	0	1.495E+06	1.495E+06		NUBASE
3460	89-Ac-235	0.5+		40 s	100	β :-100.00	0	1.153E+06	1.153E+06		NUBASE
3461	89-Ac-236	?		2 m	1.67	β :-100.00	0	1.687E+06	1.687E+06		NUBASE
3462	90-Th-209	2.5-		7E-03 s	71.43	α :50.00; β +:50.00	0	1.277E+06	1.277E+06	4.118E+06	NUBASE
3463	90-Th-210	0.0+		9E-03 s	188.89	α :100.00	1			8.053E+06	ENSDF
3464	90-Th-211	2.5-		0.048 s	41.67	α :99.50; β +:0.50	0	1.118E+04	1.118E+04	7.905E+06	NUBASE
3465	90-Th-212	0.0+		0.036 s	41.67	α :99.70; β +:0.30	0	4.811E+03	4.811E+03	7.928E+06	NUBASE
3466	90-Th-213	?		0.14 s	17.86	α :100.00	1			7.840E+06	ENSDF
3467	90-Th-214	0.0+		0.1 s	25	α :99.90; β +:0.10	0	1.428E+03	1.428E+03	7.818E+06	NUBASE
3468	90-Th-215	0.5-		1.2 s	16.67	α :100.00	0			7.666E+06	NUBASE
3469	90-Th-216	0.0+		0.027 s	1.12	α :99.99; β +:0.01	0	4.362E+01	4.362E+01	8.070E+06	NUBASE
3470	90-Th-217	?		2.52E-04 s	2.78	α :100.00	1			9.424E+06	ENSDF
3471	90-Th-218	0.0+		1.09E-07 s	11.93	α :100.00	1			9.847E+06	ENSDF
3472	90-Th-219	?		1.05E-06 s	2.86	α :100.00	1			9.514E+06	ENSDF
3473	90-Th-220	0.0+		9.7E-06 s	6.19	α :100.00; β +:~	0	9.170E-05	1.834E-04	8.953E+06	NUBASE
3474	90-Th-221	3.5+		1.68E-03 s	3.57	α :100.00	0			8.626E+06	NUBASE
3475	90-Th-222	0.0+		2.8E-03 s	10.71	α :100.00	1			8.117E+06	ENSDF
3476	90-Th-223	2.5+		0.6 s	3.33	α :100.00	4	4.989E+04	7.368E+04	7.451E+06	ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	<β> (eV)	<γ> (eV)	<α> (eV)	Source
3477	90-Th-224	0.0+		1.05 s 1.90	α:100.00	4	1.214E+04	2.306E+04	7.225E+06	ENSDF
3478	90-Th-225	1.5+		8.72 m 0.01	α:90.00; β+:10.00	0	3.360E+03	6.720E+03	6.229E+06	NUBASE
3479	90-Th-226	0.0+		30.57 m 0.01	α:100.00	4	1.986E+04	8.630E+03	6.420E+06	ENSDF
3480	90-Th-227	0.5+		18.718 d ~	α:100.00	4	4.451E+04	1.197E+05	6.007E+06	LNHB
3481	90-Th-228	0.0+		1.913 y ~	α:100.00	4	2.048E+04	3.077E+03	5.498E+06	UKHEDD24
3482	90-Th-229	2.5+		7340.164 y ~	α:100.00	4	1.159E+05	9.031E+04	4.947E+06	UKHEDD24
3483	90-Th-229M	1.5+	3.500E+00	2.917 d ~	IT:100.00	0		3.500E+00		NUBASE
3484	90-Th-230	0.0+		7.54E+04 y ~	α:100.00; SF:~	6	1.240E+04	1.277E+03	4.747E+06	UKHEDD24
3485	90-Th-231	2.5+		1.063 d ~	β-:100.00	4	1.649E+05	2.582E+04		UKHEDD24
3486	90-Th-232	0.0+		1.405E+10 y ~	α:100.00; SF:~	6	1.303E+04	1.243E+03	4.077E+06	UKHEDD24
3487	90-Th-233	1.5+		22.3 m 0.01	β-:100.00	4	4.122E+05	3.749E+04		UKHEDD24
3488	90-Th-234	0.0+		24.09 d ~	β _m :100.00	4	6.056E+04	8.801E+03		UKHEDD24
3489	90-Th-235	2.5+		6.9 m 0.05	β-:100.00	0	6.400E+05	6.400E+05		UKHEDD24
3490	90-Th-236	0.0+		37.5 m 0.01	β-:100.00	0	3.667E+05	3.667E+05		NUBASE
3491	90-Th-237	2.5+		4.8 m 0.17	β-:100.00	0	8.533E+05	8.533E+05		NUBASE
3492	90-Th-238	0.0+		9.4 m 0.35	β-:100.00	0	6.200E+05	6.200E+05		NUBASE
3493	91-Pa-212	7.0+		8E-03 s 62.50	α:50.00; α _m :50.00	0			8.170E+06	NUBASE
3494	91-Pa-213	4.5-		7E-03 s 42.86	α:100.00	0			8.395E+06	NUBASE
3495	91-Pa-214	?		0.017 s 17.65	α:100.00	0			8.275E+06	NUBASE
3496	91-Pa-215	4.5-		0.014 s 14.29	α:100.00	0			8.245E+06	NUBASE
3497	91-Pa-216	?		0.105 s 11.43	α:98.00; β+:2.00	0	4.997E+04	4.997E+04	7.933E+06	NUBASE
3498	91-Pa-217	?		4.9E-03 s 12.24	α:100.00	1			8.497E+06	ENSDF
3499	91-Pa-217M	?	1.854E+06	1.6E-03 s 62.50	α:100.00	1			1.035E+07	ENSDF
3500	91-Pa-218	?		1.2E-04 s 33.33	α:100.00	1			9.766E+06	ENSDF
3501	91-Pa-219	4.5-		5.3E-08 s 18.87	α:100.00	1			1.008E+07	ENSDF
3502	91-Pa-220	1.0-		7.8E-07 s 20.51	α:100.00; β+:~	0	5.711E-03	5.711E-03	9.832E+06	NUBASE
3503	91-Pa-221	4.5-		5.9E-06 s 28.81	α:100.00	0			9.248E+06	NUBASE
3504	91-Pa-222	?		3.2E-03 s 9.37	α:100.00	0			8.855E+06	NUBASE
3505	91-Pa-223	?		5.1E-03 s 11.76	α:100.00	1			8.251E+06	ENSDF
3506	91-Pa-224	5.0-		0.844 s 2.25	α:99.90; β+:0.10	0	1.291E+03	1.291E+03	7.685E+06	NUBASE
3507	91-Pa-225	?		1.7 s 5.88	α:100.00	1			7.361E+06	ENSDF
3508	91-Pa-226	?		1.8 m 0.19	α:37.00; α _m :37.00; β+:26.00	0	2.458E+05	2.458E+05	5.096E+06	NUBASE
3509	91-Pa-227	2.5-		38.3 m 0.01	α:85.00; β+:15.00	0	7.694E+03	1.539E+04	5.594E+06	NUBASE
3510	91-Pa-228	3.0+		22 h ~	α:2.00; β+:98.15	5	9.409E+04	1.332E+06	1.217E+05	ENSDF
3511	91-Pa-229	2.5+		1.5 d ~	α:0.48; β+:99.52	5	6.586E+03	6.487E+04	2.644E+04	ENSDF
3512	91-Pa-230	2.0-		17.4 d ~	β+:91.60; β-:8.40; α:~	0	4.160E+05	4.160E+05	1.741E+02	NUBASE
3513	91-Pa-231	1.5-		3.276E+04 y ~	α:100.00; SF:~	6	5.230E+04	3.873E+04	5.061E+06	UKHEDD24
3514	91-Pa-232	2.0-		1.31 d ~	β-:100.00; β+:~	5	1.682E+05	9.364E+05		UKHEDD24
3515	91-Pa-233	1.5-		27 d ~	β-:100.00	4	1.922E+05	2.205E+05		LNHB
3516	91-Pa-234	4.0+		6.78 h ~	β-:100.00	4	3.859E+05	1.435E+06		UKHEDD24
3517	91-Pa-234M	0.0-	7.900E+04	1.17 m 0.04	β-:99.85; IT:0.15	4	8.165E+05	1.974E+04		UKHEDD24
3518	91-Pa-235	1.5-		24.2 m 0.02	β _m :100.00	4	4.641E+05	9.868E+03		UKHEDD24
3519	91-Pa-236	1.0-		9.1 m 0.02	β-:100.00	4	8.643E+05	8.057E+05		ENSDF
3520	91-Pa-237	0.5+		8.7 m 0.04	β-:100.00	4	5.714E+05	6.079E+05		ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	<β> (eV)	<γ> (eV)	<α> (eV)	Source
3521	91-Pa-238	3.0-		2.27 m 0.07	β-:100.00; β-,SF:~	0	1.154E+06	1.154E+06		NUBASE
3522	91-Pa-239	?		1.8 h 0.01	β-:100.00	0	9.220E+05	9.220E+05		NUBASE
3523	91-Pa-240	?		2 m 1.67	β-:100.00	0	1.362E+06	1.362E+06		NUBASE
3524	92-U -217	0.5-		0.026 s 53.85	α:100.00	0			8.155E+06	NUBASE
3525	92-U -218	0.0+		6E-03 s 83.33	α:100.00	0			8.783E+06	NUBASE
3526	92-U -219	?		4.2E-05 s 80.95	α:100.00	1			9.861E+06	ENSDF
3527	92-U -220	0.0+		6E-08 s 100	α:50.00; β+:50.00	0	4.417E+05	4.417E+05	5.151E+06	NUBASE
3528	92-U -221	4.5+		7E-07 s 100	α:50.00; β+:50.00	0	7.017E+05	7.017E+05	4.975E+06	NUBASE
3529	92-U -222	0.0+		1.4E-06 s 50	α:100.00; β+:~	0	7.267E-03	7.267E-03	9.501E+06	NUBASE
3530	92-U -223	?		1.8E-05 s 55.56	α:100.00	1			8.941E+06	ENSDF
3531	92-U -224	0.0+		9.4E-04 s 28.72	α:100.00; β+:~	0	7.376E-01	7.376E-01	8.620E+06	NUBASE
3532	92-U -225	2.5+		0.061 s 6.56	α:100.00	0			8.014E+06	NUBASE
3533	92-U -226	0.0+		0.35 s 42.86	α:100.00	1			7.684E+06	ENSDF
3534	92-U -227	1.5+		1.1 m 0.15	α:100.00	4	7.539E+04	1.155E+05	7.011E+06	ENSDF
3535	92-U -228	0.0+		9.1 m 0.04	α:95.00; β+:5.00	0	7.525E+02	1.505E+03	6.464E+06	NUBASE
3536	92-U -229	1.5+		58 m 0.09	β+:80.00; α:20.00	0	3.501E+05	3.501E+05	1.295E+06	NUBASE
3537	92-U -230	0.0+		20.8 d ~	α:100.00	4	1.942E+04	2.681E+03	5.971E+06	ENSDF
3538	92-U -231	2.5+		4.2 d ~	β+:100.00; α:~	0	1.906E+04	3.813E+04	2.230E+02	NUBASE
3539	92-U -232	0.0+		69.801 y ~	α:100.00; SF:~	6	1.684E+04	1.685E+03	5.397E+06	UKHEDD24
3540	92-U -233	2.5+		1.593E+05 y ~	α:100.00	4	7.597E+03	1.225E+03	4.904E+06	UKHEDD24
3541	92-U -234	0.0+		2.457E+05 y ~	α:100.00; SF:~	6	1.414E+04	1.450E+03	4.842E+06	UKHEDD24
3542	92-U -235	3.5-		7.038E+08 y ~	α:100.00; SF:~	6	5.067E+04	1.636E+05	4.465E+06	UKHEDD24
3543	92-U -235M	0.5+	7.680E+01	26 m 0.13	IT:100.00	2	7.680E+01	1.920E-10		UKHEDD24
3544	92-U -236	0.0+		2.37E+07 y ~	α:100.00; SF:~	6	1.106E+04	1.202E+03	4.572E+06	UKHEDD24
3545	92-U -237	0.5+		6.75 d ~	β-:100.00	4	1.997E+05	1.434E+05		UKHEDD24
3546	92-U -238	0.0+		4.468E+09 y ~	α:99.99; SF:0.01	6	1.021E+04	1.492E+03	4.268E+06	UKHEDD24
3547	92-U -239	2.5+		23.47 m ~	β-:100.00	4	4.099E+05	5.157E+04		UKHEDD24
3548	92-U -240	0.0+		14.1 h ~	β-:100.00	4	1.454E+05	9.258E+03		UKHEDD24
3549	92-U -241	3.5+		5 m 1.67	β-:100.00	0	6.467E+05	6.467E+05		NUBASE
3550	92-U -242	0.0+		16.8 m 0.05	β-:100.00	3	3.883E+05	3.641E+04		ENSDF
3551	93-Np-225	4.5-		3E-03 s 100	α:100.00	0			8.785E+06	NUBASE
3552	93-Np-226	?		0.035 s 28.57	α:100.00	1			8.175E+06	ENSDF
3553	93-Np-227	2.5-		0.51 s 11.76	α:99.95; β+:0.05	0	5.897E+02	5.897E+02	7.811E+06	NUBASE
3554	93-Np-228	?		1.023 m 0.04	β+:59.99; α:40.00; β+,SF:0.01	0	8.948E+05	8.948E+05	2.962E+06	NUBASE
3555	93-Np-229	2.5+		4 m 0.08	α:50.00; β+:50.00	0	4.282E+05	4.282E+05	3.508E+06	NUBASE
3556	93-Np-230	?		4.6 m 0.11	β+:97.00; α:3.00	0	1.172E+06	1.172E+06	2.035E+05	NUBASE
3557	93-Np-231	2.5+		48.8 m 0.01	β+:98.00; α:2.00	0	5.955E+05	5.955E+05	1.275E+05	NUBASE
3558	93-Np-232	4.0+		14.7 m 0.03	β+:100.00	4	8.314E+04	1.178E+06		ENSDF
3559	93-Np-233	2.5+		36.2 m ~	α:~; β+:100.00	5	4.596E+03	8.856E+04	5.602E+01	ENSDF
3560	93-Np-234	0.0+		4.4 d ~	β+:100.00	4	4.033E+04	1.107E+06		ENSDF
3561	93-Np-235	2.5+		1.084 y ~	β+:100.00; α:~	5	3.300E+03	7.999E+03	6.985E+01	LNHB
3562	93-Np-236	6.0-		1.52E+05 y ~	β-:11.80; β+:88.04; α:0.16	6	2.396E+05	1.530E+05	8.109E+03	UKHEDD24
3563	93-Np-236M	1.0-	5.000E+00	22.5 h ~	β-:50.00; β+:50.00	5	9.141E+04	4.913E+04		UKHEDD24
3564	93-Np-237	2.5+		2.14E+06 y ~	α:100.00	4	3.831E+04	3.240E+04	4.860E+06	LNHB

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	<β> (eV)	<γ> (eV)	<α> (eV)	Source
3565	93-Np-238	2.0+		2.117 d ~	β-:100.00	4	2.325E+05	6.443E+05		UKHEDD24
3566	93-Np-239	2.5+		2.355 d ~	β-:100.00	4	2.628E+05	1.822E+05		UKHEDD24
3567	93-Np-240	5.0+		1.083 h ~	β-:100.00	4	4.668E+05	1.247E+06		UKHEDD24
3568	93-Np-240M	1.0-	2.000E+04	7.4 m 0.05	β-:99.89; IT:0.11	4	6.830E+05	3.368E+05		UKHEDD24
3569	93-Np-241	2.5+		13.9 m 0.02	β-:100.00	4	4.372E+05	3.609E+04		UKHEDD24
3570	93-Np-242	1.0+		2.2 m 0.15	β-:100.00	2	8.887E+05	2.432E+05		ENSDF
3571	93-Np-242M	6.0+		5.5 m 0.03	β-:100.00	0	9.005E+05	9.005E+05		NUBASE
3572	93-Np-243	2.5-		1.85 m 0.14	β-:100.00	0	7.080E+05	7.080E+05		NUBASE
3573	93-Np-244	7.0-		2.29 m 0.12	β-:100.00	0	1.131E+06	1.131E+06		NUBASE
3574	94-Pu-228	0.0+		0.01 s 100	α:99.90; β+:0.10	0	7.967E+02	7.967E+02	7.943E+06	NUBASE
3575	94-Pu-229	1.5+		2 m 0.69	α:100.00	0			7.598E+06	NUBASE
3576	94-Pu-230	0.0+		1.7 m 0.17	α:50.00; β+:50.00	0	2.823E+05	2.823E+05	3.590E+06	NUBASE
3577	94-Pu-231	1.5+		8.6 m 0.10	β+:87.00; α:13.00	0	7.700E+05	7.700E+05	8.890E+05	NUBASE
3578	94-Pu-232	0.0+		33.7 m 0.02	β+:89.00; α:11.00	0	4.477E+04	8.953E+04	7.388E+05	NUBASE
3579	94-Pu-233	2.5+		20.9 m 0.03	β+:99.88; α:0.12	0	6.992E+05	6.992E+05	7.697E+03	NUBASE
3580	94-Pu-234	0.0+		8.8 h ~	β+:94.00; α:6.00	0	1.852E+04	3.704E+04	3.786E+05	NUBASE
3581	94-Pu-235	2.5+		25.3 m 0.03	β+:100.00; α:~	0	3.798E+05	3.798E+05	1.667E+02	NUBASE
3582	94-Pu-236	0.0+		2.858 y ~	α:100.00; SF:~	6	1.339E+04	1.583E+03	5.852E+06	UKHEDD24
3583	94-Pu-237	3.5-		45.3 d ~	β+:100.00; α:~	5	1.750E+04	5.516E+04	2.341E+02	UKHEDD24
3584	94-Pu-237M	0.5+	1.455E+05	0.18 s 11.11	IT:100.00	0		1.455E+05		NUBASE
3585	94-Pu-238	0.0+		87.7 y ~	α:100.00; SF:~	6	1.119E+04	1.548E+03	5.580E+06	UKHEDD24
3586	94-Pu-239	0.5+		2.411E+04 y ~	α:0.06; α _m :99.94; SF:~	6	7.935E+03	7.277E+02	5.238E+06	UKHEDD24
3587	94-Pu-240	0.0+		6562.997 y ~	α:100.00; SF:~	6	1.112E+04	1.363E+03	5.243E+06	UKHEDD24
3588	94-Pu-241	2.5+		14.33 y ~	β-:100.00; α:~	5	5.235E+03	1.711E+00	1.226E+02	UKHEDD24
3589	94-Pu-242	0.0+		3.735E+05 y ~	α:100.00; SF:~	6	9.381E+03	1.291E+03	4.973E+06	UKHEDD24
3590	94-Pu-243	3.5+		4.956 h ~	β-:100.00	4	1.736E+05	2.508E+04		UKHEDD24
3591	94-Pu-244	0.0+		8E+07 y ~	α:99.88; SF:0.12	6	7.715E+03	9.756E+03	4.873E+06	UKHEDD24
3592	94-Pu-245	4.5-		10.5 h ~	β-:100.00	4	3.314E+05	3.986E+05		UKHEDD24
3593	94-Pu-246	0.0+		10.85 d ~	β _m :100.00	4	1.149E+05	1.238E+05		UKHEDD24
3594	94-Pu-247	0.5+		2.27 d ~	β-:100.00	0	6.167E+05	6.167E+05		NUBASE
3595	95-Am-231	?		30 s 100	β+:50.00; α:50.00	0	6.925E+05	6.925E+05	3.728E+06	NUBASE
3596	95-Am-232	?		1.31 m 0.05	β+:97.93; α:2.00; β+,SF:0.07	0	1.643E+06	1.643E+06	1.455E+05	NUBASE
3597	95-Am-233	?		3.2 m 0.42	β+:97.00; α:3.00	0	1.009E+06	1.009E+06	2.090E+05	NUBASE
3598	95-Am-234	?		2.32 m 0.06	β+:99.95; α:0.04; β+,SF:0.01	0	1.393E+06	1.393E+06	2.677E+03	NUBASE
3599	95-Am-235	2.5-		9.9 m 0.08	β+:99.60; α:0.40	0	8.220E+05	8.220E+05	2.642E+04	NUBASE
3600	95-Am-236	?		30 m 1.67	β+:50.00; α:50.00	0	5.462E+05	5.462E+05	3.198E+06	NUBASE
3601	95-Am-237	2.5-		1.217 h ~	β+:49.99; β _m :49.99; α:0.03	0	4.679E+05	4.679E+05	1.549E+03	NUBASE
3602	95-Am-238	1.0+		1.633 h ~	β+:100.00	4	1.545E+04	8.877E+05		ENSDF
3603	95-Am-239	2.5-		11.9 h ~	β+:99.99; α:0.01	0	4.010E+04	8.020E+04	5.922E+02	NUBASE
3604	95-Am-240	3.0-		2.117 d ~	β+:100.00; α:~	5	8.295E+04	1.031E+06	1.038E+01	UKHEDD24
3605	95-Am-241	2.5-		432.808 y ~	α:100.00; SF:~	6	3.908E+04	2.751E+04	5.557E+06	UKHEDD24
3606	95-Am-242	1.0-		16.04 h ~	β-:83.20; β+:16.80	5	1.827E+05	1.670E+04		UKHEDD24

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3607	95-Am-242M	5.0-	4.863E+04	141.003 y ~	IT:99.54; α :0.46; SF:~	6	4.595E+04	4.183E+03	2.478E+04	UKHEDD24
3608	95-Am-242N	?	2.200E+06	0.014 s 7.14	SF:100.00	0				NUBASE
3609	95-Am-243	2.5-		7364.976 y ~	α :100.00; SF:~	6	2.393E+04	5.696E+04	5.359E+06	UKHEDD24
3610	95-Am-244	6.0-		10.1 h ~	β -:100.00	4	3.081E+05	8.434E+05		UKHEDD24
3611	95-Am-244M	1.0-	6.900E+04	26 m 0.13	β -:99.96; β +:0.04	5	5.039E+05	1.244E+04		UKHEDD24
3612	95-Am-245	2.5+		2.05 h ~	β -:100.00	4	2.847E+05	2.774E+04		UKHEDD24
3613	95-Am-246	7.0+		39 m 0.13	β -:100.00	4	7.153E+05	7.752E+05		UKHEDD24
3614	95-Am-246M	2.0+	5.000E+03	25 m 0.01	β -:100.00	4	4.846E+05	1.016E+06		UKHEDD24
3615	95-Am-247	2.5+		23 m 0.09	β -:100.00	4	5.873E+05	1.345E+05		ENSDF
3616	95-Am-248	?		3 m 1.67	β -:100.00	0	1.056E+06	1.056E+06		NUBASE
3617	95-Am-249	?		1 m 1.67	β -:100.00	0	7.833E+05	7.833E+05		NUBASE
3618	96-Cm-233	1.5+		1 m 1.67	α :50.00; β +:50.00	0	6.867E+05	6.867E+05	3.733E+06	NUBASE
3619	96-Cm-234	0.0+		51 s 23.53	α :50.00; β +:47.00; SF:3.00	0	3.437E+05	3.437E+05	3.683E+06	NUBASE
3620	96-Cm-235	2.5+		5 m 1.67	β +:50.00; α :50.00	0	5.417E+05	5.417E+05	3.600E+06	NUBASE
3621	96-Cm-236	0.0+		10 m 1.67	β +:50.00; α :50.00	0	2.850E+05	2.850E+05	3.550E+06	NUBASE
3622	96-Cm-237	2.5+		20 m 1.67	β +:50.00; α :50.00	0	4.517E+05	4.517E+05	3.403E+06	NUBASE
3623	96-Cm-238	0.0+		2.4 h ~	β +:90.00; α :10.00	0	4.410E+04	8.820E+04	6.625E+05	NUBASE
3624	96-Cm-239	3.5-		2.9 h 0.03	β +:99.90; α :0.10	0	5.987E+05	5.987E+05	6.581E+03	NUBASE
3625	96-Cm-240	?		27 d ~	α :99.70	1			6.370E+06	ENSDF
3626	96-Cm-241	0.5+		32.8 d ~	β +:99.00; α :1.00	5	1.408E+05	4.968E+05	6.029E+04	UKHEDD24
3627	96-Cm-242	0.0+		162.931 d ~	α :100.00; SF:~	6	1.017E+04	1.373E+03	6.206E+06	UKHEDD24
3628	96-Cm-243	2.5+		30.001 y ~	β +:0.24; α :99.76	5	1.392E+05	1.332E+05	5.940E+06	UKHEDD24
3629	96-Cm-244	0.0+		18 y ~	α :100.00; SF:~	6	8.874E+03	1.211E+03	5.894E+06	UKHEDD24
3630	96-Cm-244M	6.0+	1.040E+06	0.034 s 5.88	IT:100.00	0		1.040E+06		NUBASE
3631	96-Cm-245	3.5+		8500.194 y ~	α :100.00	4	8.129E+04	9.380E+04	5.448E+06	UKHEDD24
3632	96-Cm-246	0.0+		4730.087 y ~	α :99.97; SF:0.03	6	8.200E+03	3.002E+03	5.514E+06	UKHEDD24
3633	96-Cm-247	4.5-		1.6E+07 y ~	α :100.00	4	2.239E+04	3.028E+05	5.028E+06	UKHEDD24
3634	96-Cm-248	0.0+		3.4E+05 y ~	α :91.74; SF:8.26	6	6.291E+03	5.791E+05	1.981E+07	UKHEDD24
3635	96-Cm-249	0.5+		1.069 h ~	β -:100.00	4	2.837E+05	1.968E+04		UKHEDD24
3636	96-Cm-250	0.0+		8000.177 y ~	α :30.00; SF:70.00	4		4.900E+06	1.296E+08	UKHEDD24
3637	96-Cm-251	0.5+		16.8 m 0.02	β -:100.00	4	4.507E+05	1.104E+05		ENSDF
3638	96-Cm-252	0.0+		1 d ~	β -:100.00	0	1.767E+05	1.767E+05		NUBASE
3639	97-Bk-235	?		20 s 100	β +:50.00; α :50.00	0	7.983E+05	7.983E+05	3.918E+06	NUBASE
3640	97-Bk-236	?		1 m 1.67	β +:50.00; α :50.00	0	9.183E+05	9.183E+05	3.788E+06	NUBASE
3641	97-Bk-237	3.5+		1 m 1.67	β +:50.00; α :50.00	0	6.367E+05	6.367E+05	3.753E+06	NUBASE
3642	97-Bk-238	?		2.4 m 0.07	β +:99.75; α :0.20; β +,SF:0.05	0	1.626E+06	1.626E+06	1.467E+04	NUBASE
3643	97-Bk-239	3.5+		3 m 1.67	β +:50.00; α :50.00	0	5.167E+05	5.167E+05	3.603E+06	NUBASE
3644	97-Bk-240	?		4.8 m 0.28	β +:90.00; α :10.00; β +,SF:~	0	1.183E+06	1.183E+06	7.065E+05	NUBASE
3645	97-Bk-241	3.5+		4.6 m 0.14	α :50.00; β +:50.00	0	3.994E+05	3.994E+05	3.553E+06	NUBASE
3646	97-Bk-242	2.0-		7 m 0.31	β +:100.00; β +,SF:~	0	9.783E+05	9.783E+05		NUBASE
3647	97-Bk-243	1.5-		4.5 h ~	β +:99.85; α :0.15	0	5.017E+05	5.017E+05	1.031E+04	NUBASE
3648	97-Bk-244	4.0-		4.35 h ~	β +:99.99; α :0.01	0	7.541E+05	7.541E+05	4.067E+02	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3649	97-Bk-245	1.5-		4.94 d ~	α :0.12; β +:99.88	5	1.190E+05	2.347E+05	7.460E+03	ENSDF
3650	97-Bk-246	2.0-		1.8 d ~	β +:99.90; α :0.05; α_n :0.05	0	4.501E+05	4.501E+05	4.975E+03	NUBASE
3651	97-Bk-247	1.5-		1380.001 y ~	α :100.00	4	6.583E+04	1.415E+05	5.657E+06	ENSDF
3652	97-Bk-248	6.0+		9 y ~	α :100.00	0			5.774E+06	NUBASE
3653	97-Bk-248M	1.0-	3.000E+04	23.7 h ~	β +:30.00; β -:70.00	5	1.775E+05	5.338E+04		ENSDF
3654	97-Bk-249	3.5+		320 d ~	β -:100.00; α :~; SF:~	7	3.304E+04	3.147E+01	7.902E+01	UKHEDD24
3655	97-Bk-250	2.0-		3.217 h ~	β -:100.00	4	2.970E+05	9.054E+05		UKHEDD24
3656	97-Bk-251	1.5-		55.6 m 0.03	β -:100.00	0	3.643E+05	3.643E+05		NUBASE
3657	97-Bk-252	?		1.8 m 0.46	β -:50.00; α :50.00	0	4.160E+05	4.160E+05	2.773E+06	NUBASE
3658	97-Bk-253	?		10 m 1.67	β -:100.00	0	5.430E+05	5.430E+05		NUBASE
3659	97-Bk-254	?		1 m 1.67	β -:100.00	0	1.016E+06	1.016E+06		NUBASE
3660	98-Cf-237	2.5+		2.1 s 14.29	α :45.00; SF:10.00; β +:45.00	0	7.080E+05	7.080E+05	3.647E+06	NUBASE
3661	98-Cf-238	0.0+		0.021 s 6.16	SF:99.80; α :0.20	0			1.607E+04	NUBASE
3662	98-Cf-239	2.5+		1 m 0.83	α :50.00; β +:50.00	0	6.433E+05	6.433E+05	3.908E+06	NUBASE
3663	98-Cf-240	0.0+		1.06 m 0.24	α :98.00; SF:2.00	0			7.561E+06	NUBASE
3664	98-Cf-241	3.5-		3.8 m 0.31	β +:75.00; α :25.00	0	8.150E+05	8.150E+05	1.914E+06	NUBASE
3665	98-Cf-242	0.0+		3.49 m 0.06	α :80.00; β +:19.99; SF:0.01	0	1.066E+05	1.066E+05	6.012E+06	NUBASE
3666	98-Cf-243	0.5+		10.7 m 0.08	β +:86.00; α :14.00	0	6.476E+05	6.476E+05	1.027E+06	NUBASE
3667	98-Cf-244	0.0+		19.4 m 0.05	α :100.00	0			7.329E+06	NUBASE
3668	98-Cf-245	2.5+		45 m 0.06	β +:64.00; α :36.00	0	3.353E+05	3.353E+05	2.613E+06	NUBASE
3669	98-Cf-246	0.0+		1.488 d ~	α :100.00	4	3.977E+03	1.190E+03	6.857E+06	ENSDF
3670	98-Cf-247	3.5+		3.11 h ~	β +:99.97; α :0.03	0	3.229E+04	6.458E+04	2.285E+03	NUBASE
3671	98-Cf-248	0.0+		333.5 d ~	α :100.00	3	5.053E+03	2.696E+01	6.352E+06	ENSDF
3672	98-Cf-249	4.5-		351.007 y ~	α :100.00; SF:~	6	2.985E+04	3.292E+05	5.928E+06	UKHEDD24
3673	98-Cf-250	0.0+		13.08 y ~	α :99.92; SF:0.08	6	5.958E+03	6.343E+03	6.262E+06	UKHEDD24
3674	98-Cf-251	0.5+		898.018 y ~	α :100.00	4	1.817E+05	1.203E+05	5.878E+06	UKHEDD24
3675	98-Cf-252	0.0+		2.645 y ~	α :96.91; SF:3.09	6	6.006E+03	2.174E+05	1.181E+07	UKHEDD24
3676	98-Cf-253	3.5+		17.81 d ~	β -:99.69; α :0.31	5	8.046E+04	8.369E+01	1.882E+04	UKHEDD24
3677	98-Cf-254	0.0+		60.5 d ~	SF:99.69; α :0.31	0			1.832E+04	NUBASE
3678	98-Cf-255	3.5+		1.417 h 0.01	β -:100.00; SF:~; α :~	0	2.403E+05	2.403E+05	1.147E-02	NUBASE
3679	98-Cf-256	0.0+		12.3 m 0.16	SF:100.00; α :~	0			3.444E-02	NUBASE
3680	99-Es-240	?		1 s 100	α :50.00; β +:50.00	0	1.028E+06	1.028E+06	4.188E+06	NUBASE
3681	99-Es-241	1.5-		10 s 50	α :50.00; β +:50.00	0	7.467E+05	7.467E+05	4.158E+06	NUBASE
3682	99-Es-242	?		13.5 s 18.52	α :50.00; β +:49.40; β +,SF:0.60	0	9.271E+05	9.271E+05	4.128E+06	NUBASE
3683	99-Es-243	1.5-		21 s 9.52	β +:70.00; α :30.00	0	8.937E+05	8.937E+05	2.420E+06	NUBASE
3684	99-Es-244	?		37 s 10.81	β +:94.99; α :5.00; β +,SF:0.01	0	1.441E+06	1.441E+06	3.968E+05	NUBASE
3685	99-Es-245	1.5-		1.1 m 0.15	β +:60.00; α :40.00	0	6.106E+05	6.106E+05	3.166E+06	NUBASE
3686	99-Es-246	4.0-		7.7 m 0.11	β +:90.10; α :9.90; β +,SF:~	0	1.144E+06	1.144E+06	7.658E+05	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3687	99-Es-247	3.5+		4.6 m 0.11	β^+ :93.00; α :7.00; SF:~	0	7.666E+05	7.666E+05	5.246E+05	NUBASE
3688	99-Es-248	?		27 m 0.31	β^+ :99.75; α :0.25; β^+ ,SF:~	0	1.017E+06	1.017E+06	1.790E+04	NUBASE
3689	99-Es-249	3.5+		1.703 h ~	α :0.57; β^+ :99.43	5	3.050E+04	4.119E+05	3.860E+04	ENSDF
3690	99-Es-250	6.0+		8.6 h ~	β^+ :97.00 ; α :3.00	0	6.655E+05	6.655E+05	2.051E+05	NUBASE
3691	99-Es-250M	1.0-	2.000E+05	2.22 h ~	β^+ :100.00	4	2.035E+04	5.434E+05		ENSDF
3692	99-Es-251	1.5-		1.375 d ~	β^+ :99.50; α :0.50	0	1.876E+04	3.751E+04	3.298E+04	NUBASE
3693	99-Es-252	5.0-		1.291 y ~	α :78.00; β^+ :22.00	0	1.382E+04	2.763E+04	5.292E+06	NUBASE
3694	99-Es-253	3.5+		20.47 d ~	α :100.00; SF:~	6	4.561E+03	1.075E+03	6.734E+06	UKHEDD24
3695	99-Es-254	7.0+		275.7 d ~	α :100.00	4	1.199E+04	6.215E+04	6.503E+06	ENSDF
3696	99-Es-254M	2.0+	8.370E+04	1.637 d ~	β^- :96.65; IT:2.96; α :0.32; β^+ :0.07	0	3.774E+05	3.800E+05	2.114E+04	NUBASE
3697	99-Es-255	3.5+		39.8 d ~	β^- :92.00; α :8.00; SF:~	0	8.893E+04	8.893E+04	5.149E+05	NUBASE
3698	99-Es-256	?		25.4 m 0.16	β^- :100.00	0	5.680E+05	5.680E+05		NUBASE
3699	99-Es-256M	8.0+		7.6 h 0.03	β^- :100.00; β^- ,SF:~	0	5.680E+05	5.680E+05		NUBASE
3700	99-Es-257	3.5+		7.7 d ~	β^- :100.00; α :~	0	2.703E+05	2.703E+05	2.418E+01	NUBASE
3701	99-Es-258	?		3 m 1.67	β^- :50.00; α :50.00	0	3.783E+05	3.783E+05	2.943E+06	NUBASE
3702	100-Fm-242	0.0+		8E-04 s 25	SF:50.00; α :50.00	0			4.388E+06	NUBASE
3703	100-Fm-243	3.5-		0.21 s 28.57	α :60.00; β^+ :39.43; SF:0.57	0	5.888E+05	5.888E+05	5.211E+06	NUBASE
3704	100-Fm-244	0.0+		3.3E-03 s 15.15	SF:99.60; α :0.40	0			3.422E+04	NUBASE
3705	100-Fm-245	0.5+		4.2 s 30.95	α :95.67; β^+ :4.20; SF:0.13	0	5.292E+04	5.292E+04	8.070E+06	NUBASE
3706	100-Fm-246	0.0+		1.1 s 18.18	α :85.50; SF:4.50; β^+ ,SF:10.00	0			7.161E+06	NUBASE
3707	100-Fm-247	2.5+		35 s 11.43	α :50.00; β^+ :50.00	0	4.950E+05	4.950E+05	4.103E+06	NUBASE
3708	100-Fm-248	0.0+		36 s 8.33	α :92.91; β^+ :6.99; SF:0.10	0	3.744E+04	3.744E+04	7.434E+06	NUBASE
3709	100-Fm-249	3.5+		2.6 m 0.45	β^+ :67.00; α :33.00	0	5.449E+05	5.449E+05	2.577E+06	NUBASE
3710	100-Fm-250	0.0+		30 m 0.17	α :89.99; β^+ :10.00; SF:0.01	0	3.220E+03	6.440E+03	6.801E+06	NUBASE
3711	100-Fm-250M	?	1.500E+06	1.8 s 5.56	IT:80.00; α :20.00; SF:~	0		1.200E+06	1.811E+06	NUBASE
3712	100-Fm-251	4.5-		5.3 h ~	β^+ :98.20; α :1.80	0	4.828E+05	4.828E+05	1.337E+05	NUBASE
3713	100-Fm-252	0.0+		1.058 d ~	α :100.00	3	4.208E+03	3.952E+01	7.144E+06	ENSDF
3714	100-Fm-253	0.5+		3 d ~	β^+ :88.00; α :12.00	0	1.480E+04	2.959E+04	8.639E+05	NUBASE
3715	100-Fm-254	0.0+		3.24 h ~	α :99.94	4	4.329E+03	1.397E+03	7.298E+06	ENSDF
3716	100-Fm-255	3.5+		20.07 h ~	α :100.00	4	7.211E+04	1.145E+04	7.167E+06	ENSDF
3717	100-Fm-256	0.0+		2.627 h ~	SF:91.90; α :8.10	0			5.692E+05	NUBASE
3718	100-Fm-257	4.5+		100.5 d ~	α :99.79	4	1.157E+05	1.191E+05	6.660E+06	ENSDF
3719	100-Fm-258	0.0+		3.7E-04 s 3.78	SF:100.00	0				NUBASE
3720	100-Fm-259	1.5+		1.5 s 20	SF:100.00	0				NUBASE
3721	101-Md-245	0.5-		9E-04 s 27.78	SF:50.00; α :50.00	0			4.513E+06	NUBASE
3722	101-Md-245M	3.5+	1.000E+05	0.4 s 50	α :50.00; β^+ :50.00	0	8.617E+05	8.617E+05	4.563E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3723	101-Md-246	?		1 s 40	α :33.33; β +:33.33; SF:33.33	0	6.822E+05	6.822E+05	2.962E+06	NUBASE
3724	101-Md-247	0.5-		0.27 s 59.26	SF:50.00; α :50.00	0			4.418E+06	NUBASE
3725	101-Md-247M	3.5+	5.000E+04	1.12 s 19.64	α :100.00; SF:~	0			8.885E+06	NUBASE
3726	101-Md-248	?		7 s 42.86	β +:79.95; α :20.00; β +,SF:0.05	0	1.398E+06	1.398E+06	1.739E+06	NUBASE
3727	101-Md-249	3.5-		24 s 16.67	α :60.00; β +:40.00	0	4.947E+05	4.947E+05	5.079E+06	NUBASE
3728	101-Md-249M	0.5-	1.000E+05	1.9 s 47.37	α :100.00	0			8.565E+06	NUBASE
3729	101-Md-250	?		52 s 11.54	β +:46.49; β _m :46.49; α :7.00; β +,SF:0.02	0	1.183E+06	1.183E+06	5.821E+05	NUBASE
3730	101-Md-251	3.5-		4 m 0.21	β +:95.00; α :5.00	0	9.636E+05	9.636E+05	3.998E+05	NUBASE
3731	101-Md-252	?		2.3 m 0.58	β +:50.00; α :50.00	0	6.355E+05	6.355E+05	3.953E+06	NUBASE
3732	101-Md-253	3.5-		12 m 1.11	β +:99.40; α :0.60	0	6.461E+05	6.461E+05	4.617E+04	NUBASE
3733	101-Md-254	0.0-		10 m 0.50	β +:100.00	0	8.686E+05	8.686E+05		NUBASE
3734	101-Md-254M	3.0-	5.000E+04	28 m 0.48	β +:100.00	0	8.853E+05	8.853E+05		NUBASE
3735	101-Md-255	3.5-		27 m 0.12	β +:91.86; α :7.99; SF:0.15	0	3.197E+05	3.197E+05	6.315E+05	NUBASE
3736	101-Md-256	1.0-		1.283 h ~	β +:87.80; α :9.20; SF:3.00	0	6.245E+05	6.245E+05	7.273E+05	NUBASE
3737	101-Md-257	3.5-		5.52 h ~	β +:81.73; α :14.42; SF:3.85	0	1.664E+04	3.328E+04	1.090E+06	NUBASE
3738	101-Md-258	8.0-		51.5 d ~	α :100.00; β +:~; β -:~	0	7.330E+00	7.330E+00	7.271E+06	NUBASE
3739	101-Md-258M	1.0-		57 m 0.03	β +:68.80; SF:20.00; β -:10.00; α _m :1.20	0	5.021E+04	9.348E+04	8.625E+04	NUBASE
3740	101-Md-259	3.5-		1.6 h ~	SF:98.70; α :1.30	0			9.238E+04	NUBASE
3741	101-Md-260	?		27.8 d ~	SF:91.50; α :2.50; α _m :2.50; β -:3.50	0	1.097E+04	1.097E+04	3.468E+05	NUBASE
3742	101-Md-261	3.5-		40 m 1.67	α :100.00	0			6.655E+06	NUBASE
3743	102-No-249	2.5+		5.7E-05 s 21.05	β +:25.00; β _m :25.00; α :50.00	0	7.400E+05	7.400E+05	4.588E+06	NUBASE
3744	102-No-250	0.0+		5.7E-06 s 14.04	SF:99.90; α :0.10; β +:~	0	2.400E+00	2.400E+00	8.955E+03	NUBASE
3745	102-No-251	?		0.8 s 37.50	α :100.00	1			8.745E+06	ENSDF
3746	102-No-251M	4.5-	1.100E+05	1.7 s 58.82	α :100.00	0			9.015E+06	NUBASE
3747	102-No-252	0.0+		2.44 s 1.64	α :67.00; SF:32.20; β +:0.80	0	6.003E+03	6.003E+03	5.729E+06	NUBASE
3748	102-No-253	4.5-		1.62 m 0.15	α :80.00; β +:20.00; SF:~	0	2.113E+05	2.113E+05	6.740E+06	NUBASE
3749	102-No-254	0.0+		51 s 19.61	α :89.85; β +:9.98; SF:0.17	0	4.040E+04	4.040E+04	7.390E+06	NUBASE
3750	102-No-254M	?	5.000E+05	0.28 s 14.29	IT:80.00; α :10.00; α _m :10.00	0		4.000E+05	1.595E+06	NUBASE
3751	102-No-255	0.5+		3.1 m 0.11	α :61.00; β +:39.00	0	2.614E+05	2.614E+05	5.150E+06	NUBASE
3752	102-No-256	?		2.91 s 1.72	α :99.50	1			8.533E+06	ENSDF
3753	102-No-257	3.5+		25 s 8	α :100.00	1			8.383E+06	ENSDF

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source	
3754	102-No-258	0.0+		1.2E-03	s	16.67	SF:100.00; α :~	0		8.151E+01	NUBASE	
3755	102-No-259	4.5+		58	m	0.14	α :68.18; β +:22.73; SF:9.09	0	5.568E+03	1.114E+04	5.377E+06	NUBASE
3756	102-No-260	0.0+		0.106	s	7.55	SF:100.00	0			NUBASE	
3757	102-No-261	1.5+		3	h	0.03	α :100.00	0		7.486E+06	NUBASE	
3758	102-No-262	0.0+		5E-03	s	100	SF:100.00	0			NUBASE	
3759	103-Lr-251	?		1.5E-04	s	100	β +:25.00; β _m :25.00; α :25.00; α _m :25.00	0	8.225E+05	8.225E+05	4.705E+06	NUBASE
3760	103-Lr-252	?		0.39	s	23.08	β +:71.00; α :28.00; SF:1.00	0	1.410E+06	1.410E+06	2.594E+06	NUBASE
3761	103-Lr-253	3.5-		0.58	s	12.07	α :96.15; SF:2.78; β +:1.07	0	1.503E+04	1.503E+04	8.591E+06	NUBASE
3762	103-Lr-253M	0.5-	3.000E+04	1.5	s	20	α _m :90.91; SF:8.08; β +:1.01	0	1.431E+04	1.431E+04	8.059E+06	NUBASE
3763	103-Lr-254	?		13	s	23.08	α :76.00; β +:12.00; β _m :12.00	0	3.901E+05	3.901E+05	6.677E+06	NUBASE
3764	103-Lr-255	3.5-		22	s	18.18	α :69.00; β +:30.00; SF:1.00	0	3.206E+05	3.206E+05	5.938E+06	NUBASE
3765	103-Lr-256	?		27	s	11.11	α :84.97; β +:15.00; SF:0.03	0	2.022E+05	2.022E+05	7.491E+06	NUBASE
3766	103-Lr-257	?		0.646	s	3.87	α :100.00	1			8.990E+06	ENSDF
3767	103-Lr-258	?		4.1	s	7.32	α :47.50; α _m :47.50; β +:5.00	0	5.600E+04	5.600E+04	8.436E+06	NUBASE
3768	103-Lr-259	4.5+		6.2	s	4.84	α :77.53; SF:21.87; β +:0.60	0	3.459E+03	3.459E+03	6.654E+06	NUBASE
3769	103-Lr-260	?		3	m	0.28	α :80.00; β +:20.00	0	1.780E+05	1.780E+05	6.588E+06	NUBASE
3770	103-Lr-261	?		39	m	0.51	SF:50.00; α :50.00	0			4.069E+06	NUBASE
3771	103-Lr-262	?		4	h	0.03	β +:45.00; SF:10.00; α :22.50; α _m :22.50	0	3.255E+05	3.255E+05	3.603E+06	NUBASE
3772	103-Lr-263	?		5	h	0.03	α :100.00	0			7.625E+06	NUBASE
3773	104-Rf-253	3.5+		0.013	s	38.46	SF:50.00; α :50.00	0			4.773E+06	NUBASE
3774	104-Rf-254	0.0+		2.3E-05	s	13.04	SF:98.50; α :1.50	0			1.406E+05	NUBASE
3775	104-Rf-255	4.5-		1.64	s	6.71	α _m :48.00; SF:52.00	0			4.298E+06	NUBASE
3776	104-Rf-255M	2.5+		1	s	40	α :100.00	0			9.065E+06	NUBASE
3777	104-Rf-256	0.0+		6.45E-03	s	3.88	SF:99.68; α :0.32	0			2.858E+04	NUBASE
3778	104-Rf-257	0.5+		4.7	s	6.38	α :87.60; β +:11.00; SF:1.40	0	1.170E+05	1.170E+05	7.915E+06	NUBASE
3779	104-Rf-257M	5.5-	1.140E+05	3.9	s	10.26	α :99.30; SF:0.70	0			9.086E+06	NUBASE
3780	104-Rf-258	0.0+		0.012	s	16.67	SF:87.00; α :13.00	0			1.203E+06	NUBASE
3781	104-Rf-259	3.5+		2.8	s	14.29	α :91.72; SF:7.98; β +:0.30	0	2.542E+03	2.542E+03	8.366E+06	NUBASE
3782	104-Rf-260	0.0+		0.021	s	4.76	SF:97.99; α :2.00; β +:0.01	0	4.350E+00	8.700E+00	1.780E+05	NUBASE
3783	104-Rf-261	1.5+		5.5	s	45.45	α :60.00; SF:40.00	0			5.189E+06	NUBASE
3784	104-Rf-261M	4.5+	7.000E+04	1.35	m	0.19	α :75.00; β +:15.00; SF:10.00	0	9.125E+04	9.125E+04	6.539E+06	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)		Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3785	104-Rf-262	0.0+		2.3 s	17.39	SF:99.20; α :0.80	0			6.788E+04	NUBASE
3786	104-Rf-262M	?	6.000E+05	0.047 s	10.64	SF:100.00	0				NUBASE
3787	104-Rf-263	1.5+		11 m	0.45	SF:70.00; α :30.00	0			2.492E+06	NUBASE
3788	104-Rf-264	0.0+		1 h	0.03	α :100.00	0			8.145E+06	NUBASE
3789	104-Rf-265	1.5+		13 h	0.03	α :100.00	0			7.785E+06	NUBASE
3790	105-Db-255	?		1.7 s	29.41	α :80.00; SF:20.00	0			7.772E+06	NUBASE
3791	105-Db-256	?		1.9 s	21.05	α :32.00; β +:36.00; SF:32.00	0	7.781E+05	7.781E+05	3.026E+06	NUBASE
3792	105-Db-257	4.5+		1.53 s	11.11	α :46.53; α_m :46.53; SF:5.94; β_m :0.99	0	1.418E+04	1.418E+04	8.572E+06	NUBASE
3793	105-Db-257M	0.5-	1.000E+05	0.79 s	16.46	α :43.07; α_m :43.07; SF:12.87; β +:0.99	0	1.488E+04	1.488E+04	8.020E+06	NUBASE
3794	105-Db-258	?		4.5 s	13.33	α :63.37; β +:35.64; SF:0.99	0	6.356E+05	6.356E+05	6.004E+06	NUBASE
3795	105-Db-258M	?	6.000E+04	20 s	50	β +:100.00	0	1.803E+06	1.803E+06		NUBASE
3796	105-Db-259	?		0.51 s	31.37	α :100.00	0			9.615E+06	NUBASE
3797	105-Db-260	?		1.52 s	8.55	α :88.20; SF:9.37; β +:2.44	0	3.683E+04	3.683E+04	8.277E+06	NUBASE
3798	105-Db-261	?		1.8 s	22.22	α :82.00; SF:18.00	0			7.556E+06	NUBASE
3799	105-Db-262	?		35 s	14.29	α :67.00; SF:30.00; β +:1.50; β_m :1.50	0	3.580E+04	3.580E+04	6.033E+06	NUBASE
3800	105-Db-263	?		29 s	31.03	SF:56.00; α :37.10; β +:6.90	0	5.221E+04	5.221E+04	3.278E+06	NUBASE
3801	105-Db-264	?		3 m	1.67	α :100.00	0			8.655E+06	NUBASE
3802	105-Db-265	?		15 m	1.67	α :100.00	0			8.495E+06	NUBASE
3803	106-Sg-258	0.0+		3.3E-03 s	30.30	SF:80.00; α :20.00	0			1.935E+06	NUBASE
3804	106-Sg-259	0.5+		0.58 s	36.21	α_m :81.82; SF:18.18	0			8.047E+06	NUBASE
3805	106-Sg-260	0.0+		3.8E-03 s	21.05	SF:60.00; α :40.00	0			3.968E+06	NUBASE
3806	106-Sg-261	3.5+		0.23 s	26.09	α :49.50; α_m :49.50; SF:1.00	0			9.651E+06	NUBASE
3807	106-Sg-262	0.0+		8E-03 s	37.50	SF:78.00; α :22.00	0			2.111E+06	NUBASE
3808	106-Sg-263	4.5+		1 s	20	α :70.00; SF:30.00	0			6.577E+06	NUBASE
3809	106-Sg-263M	1.5+	1.000E+05	0.12 s	100	α :50.00; IT:50.00	0		5.000E+04	4.748E+06	NUBASE
3810	106-Sg-264	0.0+		0.4 s	100	α :100.00	0			9.205E+06	NUBASE
3811	106-Sg-265	1.5+		8 s	37.50	α_m :50.00; SF:50.00	0			4.505E+06	NUBASE
3812	106-Sg-266	0.0+		21 s	28.57	α :17.00; α_m :17.00; SF:66.00	0			2.919E+06	NUBASE
3813	106-Sg-269	?		35 s	65.71	α :100.00	0			8.795E+06	NUBASE
3814	107-Bh-260	?		3E-04 s	100	α :100.00	0			1.047E+07	NUBASE
3815	107-Bh-261	?		0.013 s	30.77	α :45.24; α_m :45.24; SF:9.52	0			9.514E+06	NUBASE
3816	107-Bh-262	?		0.29 s	55.17	α :40.00; α_m :40.00; SF:20.00	0			8.212E+06	NUBASE
3817	107-Bh-262M	?	3.000E+05	0.014 s	28.57	α :45.00; α_m :45.00; SF:10.00	0			9.509E+06	NUBASE
3818	107-Bh-263	?		0.2 s	100	α :100.00	0			1.009E+07	NUBASE

Matn	Nuclide	SpPa	Exc ener	Half-life (%-err)	Decay modes (%)	Nsp	< β > (eV)	< γ > (eV)	< α > (eV)	Source
3819	107-Bh-264	?		1.3 s 38.46	α :50.00; β +:50.00	0	8.817E+05	8.817E+05	4.983E+06	NUBASE
3820	107-Bh-265	?		0.5 s 100	α :100.00	0			9.765E+06	NUBASE
3821	107-Bh-266	?		5 s 60	α :100.00	0			9.555E+06	NUBASE
3822	107-Bh-267	?		22 s 45.45	α :100.00	0			9.375E+06	NUBASE
3823	107-Bh-269	?		25 s 100	α :100.00	0			8.835E+06	NUBASE
3824	108-Hs-263	3.5+		1E-03 s 100	α :100.00	0			1.067E+07	NUBASE
3825	108-Hs-264	0.0+		5.4E-04 s 55.56	α :50.00; SF:50.00	0			5.298E+06	NUBASE
3826	108-Hs-265	4.5+		2.1E-03 s 14.29	α :99.00; SF:1.00	0			1.048E+07	NUBASE
3827	108-Hs-265M	1.5+	4.000E+05	7.8E-04 s 19.23	α :100.00	0			1.099E+07	NUBASE
3828	108-Hs-266	0.0+		2.7E-03 s 37.04	α :98.60; SF:1.40	0			1.020E+07	NUBASE
3829	108-Hs-267	1.5+		0.032 s 46.88	α_m :100.00	0			1.002E+07	NUBASE
3830	108-Hs-268	0.0+		2 s 100	α :100.00	0			9.905E+06	NUBASE
3831	108-Hs-269	?		27 s 62.96	α :100.00	0			9.625E+06	NUBASE
3832	108-Hs-273	1.5+		50 s 100	α :100.00	0			9.905E+06	NUBASE
3833	109-Mt-265	?		2E-03 s 100	α :100.00	0			1.107E+07	NUBASE
3834	109-Mt-266	?		1.2E-03 s 33.33	α :47.25; α_m :47.25; SF:5.50	0			1.025E+07	NUBASE
3835	109-Mt-266M	?	1.230E+06	6E-03 s 50	α :50.00; α_m :50.00	0			1.208E+07	NUBASE
3836	109-Mt-267	?		0.01 s 100	α :100.00	0			1.087E+07	NUBASE
3837	109-Mt-268	?		0.053 s 39.62	α :100.00	0			1.073E+07	NUBASE
3838	109-Mt-269	?		0.2 s 100	α :100.00	0			1.054E+07	NUBASE
3839	109-Mt-270	?		2 s 100	α :100.00	0			1.035E+07	NUBASE
3840	109-Mt-271	?		5 s 100	α :100.00	0			1.014E+07	NUBASE
3841	109-Mt-273	?		20 s 100	α :50.00; SF:50.00	0			5.413E+06	NUBASE
3842	110-Ds-267	4.5+		1E-05 s 80	α :100.00	0			1.228E+07	NUBASE
3843	110-Ds-268	0.0+		1E-04 s 100	α :100.00	0			1.192E+07	NUBASE
3844	110-Ds-269	1.5+		2.3E-04 s 47.83	α_m :100.00	0			1.119E+07	NUBASE
3845	110-Ds-270	0.0+		1.6E-04 s 62.50	α :99.80; SF:0.20	0			1.117E+07	NUBASE
3846	110-Ds-270M	10.0-	1.140E+06	0.01 s 60	α :50.00; IT:50.00	0		5.700E+05	6.168E+06	NUBASE
3847	110-Ds-271	5.5-		0.21 s 80.95	α :100.00	0			1.088E+07	NUBASE
3848	110-Ds-271M	4.5+	2.900E+04	1.3E-03 s 38.46	α :100.00	0			1.090E+07	NUBASE
3849	110-Ds-272	0.0+		1 s 100	SF:100.00	0				NUBASE
3850	110-Ds-273	6.5-		3.6E-04 s 77.78	α :100.00	0			1.138E+07	NUBASE
3851	110-Ds-273M	1.5+	1.980E+05	0.12 s 100	α :100.00	0			1.157E+07	NUBASE
3852	111-Rg-272	?		2E-03 s 40	α :100.00	0			1.145E+07	NUBASE