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Specific Gamma-Ray Dose Constants for Nuclides Important to Dosimetry and Radiological Assessment

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SPECIFIC GAMMA-RAY DOSE CONSTANTS FOR NUCLIDES IMPORTANT TO DOSIMETRY AND RADIOLOGICAL ASSESSMENT

Laurie M. Unger* and D. K. Trubey

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PREFACE TO THE REVISED EDITION

The specific dose equivalent constants were recalculated when an error in the computer program was discovered. The error, omission of the third term in the polynomial representation of the flux-to-dose equivalent factor between 0.5 and 5 MeV, resulted in the dose factor being too high by 2% at 0.5 MeV, 0% at 1 MeV, and increasing to nearly 9% at 5 MeV. This is to be compared to the correct polynomial which gives results within 3% of the recommended standard values. The effect on the specific dose constant was much smaller, generally much less than 2%. The greatest error noted was for ^{49}Ca which was too high by 4.5%.

Although errors of this magnitude are of little practical significance, the results have been corrected for this edition since a reprinting was necessary anyway.

Some other changes were made also. These included correcting a typographical error in the ^{137}Cs value and inserting a space where data were too crowded together.

It may be noted that in calculating the lead shielding thickness, buildup was not included. The only justification for this is that these thicknesses were meant to be rough indication of the shielding problem and the buildup in lead at these energies is quite small.

Revised March 1982

ABSTRACT

Tables of specific gamma-ray dose constants (the unshielded gamma-ray dose equivalent rate at 1 m from a point source) have been computed for approximately 500 nuclides important to dosimetry and radiological assessment. The half life, the mean attenuation coefficient, and thickness for a lead shield providing 95% dose equivalent attenuation are also listed.

SPECIFIC GAMMA-RAY DOSE CONSTANTS FOR NUCLIDES IMPORTANT TO DOSIMETRY AND RADIOLOGICAL ASSESSMENT

The unshielded gamma-ray dose-equivalent rate at 1 meter from a point source, i.e., the specific gamma-ray dose constant, is a useful quantity in radiation protection applications. Recently, an extensive compilation of the nuclear data required to compute this constant has become available[1] for approximately 500 nuclides important to dosimetry and radiological assessment applications, and it has been used to compute a table of the specific gamma-ray dose constant. In addition, the half-life, mean attenuation coefficient, and thickness for 95% attenuation with a lead shield have been computed.

The data were computed on a different basis from earlier tabulations, e.g., Ref. 2. The dose equivalent rate is given in SI units as mSv/h for a unit source of 1 MBq. To convert to the previous common normalization, one may note that 1 mCi is equal to 37 MBq and 1 Sv is equal to 100 rem. That is, to convert data in units of (mSv/h)/MBq to (mrem/h)/μCi, multiply by 3.7.

A second difference is that the conversion of gamma-ray flux density was taken to be:

$$\ln D(E) = A + B(\ln E) + C(\ln E)^2 + F(\ln E)^3 \quad \text{(rem/h)(cm}^2\text{-s)} \quad (1)$$

where the energy is in units of MeV, and the constants are given in Table 1 taken from Ref. 3.

The specific gamma-ray dose constant, Γ, was summed over n according to:

$$\Gamma = (1/4\pi R^2) \sum S_i D(E_i) \quad \text{(rem/h per Bq)} \quad (2)$$

where R = 100 cm,

n = number of gamma-rays emitted by the nuclide,

S_i = emission probability of each gamma ray,

E_i = energy of the gamma-ray (Mev),

$D(E_i)$ = dose rate per unit flux density from Eq. 1.

Only gamma-rays of energy greater than 0.01 MeV were included.

The mean attenuation coefficient was determined by first computing the thickness of lead required for 95% attenuation, i.e.,

$$0.05\,\Gamma = \sum \Gamma_i \exp(-\mu(E_i)\,t) \quad (3)$$

where $\Gamma_i = S_i D(E_i)/(4\pi R^2)$

$\mu(E_i)$ = linear attenuation coefficient from Ref. 4 for lead,

t = thickness required (cm),

The value of t was detemined by an iterative procedure, i.e., Newton's method. The value of the mean attenuation coefficient was determined by solving the following equation for μ :

$$0.05 = \exp(-\mu t). \quad (4)$$

The results, presented in Table 2, were computed using computer-readable data from Ref. 1 available as DLC-80/DRALIST from the Radiation Shielding Information Center. The computations were performed using a computer program, SPEC-GAM, programed by the first author for the ORNL Engineering Physics Information Centers (EPIC) Data General Eclipse S/130 computer in FORTRAN.

ACKNOWLEDGEMENT

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2. D. Nachtigall, "Table of Specific Gamma-ray Constants," Verlag Karl Thiemig KG, Munich (1969).
3. "Neutron and Gamma-ray Flux-to-Dose-Rate Factors," ANSI/ANS-6.1.1–1977, American Nuclear Society, La Grange Park, IL 60525, $12.
4. J. H. Hubbell, "Photon Cross Sections, Attenuation Coefficients, and Energy Absorption Coefficients From 10 keV to 100 GeV," NSRDS-NBS 29, National Bureau of Standards (1969).

TABLE 1

Gamma-Ray-Flux-to-Dose-Rate Conversion Factors
Polynomial Coefficients in Analytic Form
$\ln D(E) = A + Bx + Cx^2 + Fx^3$
$D(E) = (rem/h)(cm^2\text{-}s)$, E = Photon energy in MeV and $x = \ln E$

Photon Energy (MeV)	A	B	C	F
0.01 to 0.03	−20.477	−1.7454		
0.03 to 0.5	−13.626	−0.57117	−1.0954	−0.24897
0.5 to 5.0	−13.133	0.72008	−0.033603	
5.0 to 15.0	−12.791	0.28309	0.10873	

TABLE 2

Specific Gamma-ray Dose Constants

Units: E – keV, Γ – (mSv/h)/MBq, T – cm, μ – cm^{-1}

Nuclide	Half-life	E	Prob.	Γ	T	μ
7Be	53.4d	477.6	0.1042	9.292–6	1.594	1.879
11C	20.5m	511.0	1.9950	1.908–4	1.768	1.695
13N	10.0m	511.0	1.9960	1.909–4	1.768	1.695
16N	7.1s	1755.0	0.0013	3.984–4	6.051	0.495
		2741.0	0.0076			
		6129.0	0.6900			
		7115.0	0.0500			
		6334.0	0.0016			
15O	2.0m	511.0	1.9980	1.911–4	1.768	1.695
18F	1.8h	511.0	1.9350	1.851–4	1.768	1.695
22Na	2.6y	1274.0	0.9994	3.590–4	3.517	0.852
		511.0	1.7980			
24Na	15.0h	1368.0	1.0000	5.120–4	5.692	0.526
		2754.0	0.9986			
		3824.0	0.0006			
27Mg	9.5m	170.7	0.0084	1.448–4	3.447	0.869
		843.8	0.7180			
		1014.0	0.2800			
28Mg	20.9h	30.6	0.6600	2.371–4	3.926	0.763
		400.7	0.3660			
		941.4	0.3830			
		1342.0	0.5260			
		1373.0	0.0470			
		1589.0	0.0420			
		1620.0	0.0030			
		717.6	0.0013			
26Al	7.2+5y	1130.0	0.0250	3.995–4	4.597	0.652
		1809.0	0.9976			
		2938.0	0.0024			
		511.0	1.6360			
28Al	2.2m	1779.0	1.0000	2.358–4	5.467	0.548
31Si	2.6h	1266.0	0.0007	1.306–7	4.431	0.676
38Cl	37.2m	1642.0	0.3250	1.912–4	5.687	0.527
		2167.0	0.4400			
		3809.0	0.0002			
41Ar	1.8h	1294.0	0.9916	1.877–4	4.492	0.667
		1677.0	0.0005			
40K	1.28+9y	1461.0	0.1067	2.197–5	4.843	0.619
42K	12.4h	312.7	0.0032	3.846–5	4.962	0.604
		1525.0	0.1790			
		1446.0	0.0014			
43K	22.6h	184.0	0.0027	1.803–4	1.937	1.546
		220.6	0.0411			
		372.8	0.8727			
		396.9	0.1143			
		404.3	0.0011			
		593.4	0.1103			
		617.5	0.8051			
		800.8	0.0015			
		990.2	0.0033			
		1015.0	0.0016			
		1022.0	0.0188			
		1394.0	0.0010			
45Ca	162.7d	12.4	0.0000	8.07–12	0.004	823.3
47Ca	4.5d	489.2	0.0674	1.577–4	4.368	0.686
		530.4	0.0010			
		767.0	0.0019			
		807.9	0.0689			
		1297.0	0.7490			
		1542.0	0.0003			
49Ca	8.7m	856.1	0.0013	3.459–4	6.344	0.472
		1144.0	0.0011			
		1409.0	0.0063			
		2229.0	0.0019			
		2372.0	0.0049			
		3084.0	0.9210			
		4072.0	0.0700			
		4738.0	0.0021			
		947.0	0.0018			
44Sc	3.9h	1157.0	0.9988	3.573–4	3.272	0.915
		1500.0	0.0091			
		2656.0	0.0011			
		2375.0	0.0000			
		511.0	1.8870			
46Sc	83.8d	889.2	0.9998	3.154–4	3.808	0.787
		1120.0	0.9999			
		2010.0	0.0000			
46mSc	18.7s	142.5	0.6270	1.809–5	0.123	24.378
47Sc	3.4d	159.4	0.6800	2.170–5	0.162	18.513
48Sc	1.8d	175.4	0.0747	5.112–4	4.113	0.728
		983.5	1.0000			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1038.0	0.9750			
		1213.0	0.0238			
		1312.0	1.0000			
49Sc	57.4m	1739.0	0.0006	1.393−7	5.391	0.556
44Ti	47.3y	67.8	0.9192	3.909−5	0.104	28.726
		78.4	0.9762			
		147.0	0.0010			
45Ti	3.1h	720.3	0.0015	1.629−4	1.775	1.687
		1201.0	0.0020			
		511.0	1.6970			
51Ti	5.8m	320.1	0.9290	7.128−5	1.420	2.110
		608.6	0.0118			
		928.6	0.0687			
48V	16.0d	803.2	0.0015	4.577−4	3.893	0.770
		928.3	0.0077			
		944.1	0.0776			
		983.5	1.0000			
		1312.0	0.9750			
		1437.0	0.0012			
		2240.0	0.0241			
		2361.0	0.0003			
		511.0	1.0020			
52V	3.7m	1334.0	0.0059	2.048−4	4.786	0.626
		1434.0	1.0000			
		1531.0	0.0012			
		1006.0	0.0012			
49Cr	42.1m	62.3	0.1639	2.002−4	1.696	1.766
		90.6	0.5320			
		152.9	0.3032			
		1451.0	0.0012			
		511.0	1.8380			
51Cr	27.7d	320.1	0.0983	6.320−6	0.782	3.833
52Mn	5.6d	346.0	0.0098	5.409−4	3.878	0.773
		399.6	0.0018			
		502.0	0.0021			
		600.2	0.0039			
		647.4	0.0040			
		744.2	0.9000			
		848.1	0.0332			
		935.5	0.9450			
		1246.0	0.0421			
		1248.0	0.0038			
		1334.0	0.0507			
		1434.0	1.0000			
		884.5	0.0037			
		511.0	0.5880			
52mMn	21.4m	377.7	0.0168	3.866−4	3.767	0.795
		1434.0	0.9822			
		1727.0	0.0022			
		1644.0	0.0017			
		511.0	1.9320			
54Mn	312.7d	834.8	0.9998	1.381−4	3.216	0.932
56Mn	2.6h	846.8	0.9887	2.478−4	4.523	0.662
		1811.0	0.2719			
		2113.0	0.1434			
		2523.0	0.0099			
		2658.0	0.0065			
		2960.0	0.0031			
		3370.0	0.0017			
		1351.0	0.0016			
57Mn	1.5m	14.4	0.1063	3.027−5	1.766	1.697
		122.1	0.1035			
		136.5	0.0143			
		230.3	0.0016			
		339.6	0.0013			
		352.3	0.0155			
		366.7	0.0029			
		569.9	0.0038			
		692.0	0.0409			
		706.4	0.0018			
		870.7	0.0019			
		992.7	0.0011			
		1260.0	0.0024			
		1613.0	0.0054			
		1725.0	0.0012			
		952.4	0.0010			
52Fe	8.3h	168.7	0.9660	1.397−4	1.611	1.859
		511.0	1.1200			
59Fe	44.6d	142.7	0.0103	1.787−4	4.249	0.705
		192.3	0.0311			
		334.8	0.0026			
		1099.0	0.5650			
		1292.0	0.4320			
		1228.0	0.0009			
56Co	78.8d	733.6	0.0019	5.145−4	4.645	0.645
		787.8	0.0031			
		846.8	0.9996			
		977.4	0.0143			
		996.9	0.0014			
		1038.0	0.1403			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1140.0	0.0013			
		1175.0	0.0228			
		1238.0	0.6697			
		1335.0	0.0012			
		1360.0	0.0429			
		1443.0	0.0017			
		1771.0	0.1551			
		1811.0	0.0065			
		1964.0	0.0071			
		2015.0	0.0303			
		2035.0	0.0778			
		2113.0	0.0038			
		2213.0	0.0039			
		2276.0	0.0012			
		2599.0	0.1689			
		3010.0	0.0106			
		3202.0	0.0318			
		3253.0	0.0779			
		3273.0	0.0185			
		3451.0	0.0093			
		3548.0	0.0019			
		1453.0	0.0071			
		511.0	0.3950			
57Co	270.9d	14.4	0.0954	4.087−5	0.075	39.809
		122.1	0.8551			
		136.5	0.1060			
		692.0	0.0016			
		536.0	0.0003			
58Co	70.8d	810.8	0.9943	1.652−4	2.973	1.008
		863.9	0.0074			
		1675.0	0.0054			
		511.0	0.2986			
58mCo	9.1h	24.9	0.0004	2.637−8	0.006	528.9
60Co	5.3y	1173.0	1.0000	3.697−4	4.412	0.679
		1333.0	1.0000			
		693.8	0.0002			
60mCo	10.5m	58.6	0.0202	9.044−7	3.578	0.837
		1333.0	0.0024			
		947.4	0.0001			
61Co	1.6h	67.4	0.8500	2.286−5	1.756	1.706
		283.0	0.0012			
		625.6	0.0012			
		841.2	0.0059			
		908.6	0.0298			
		215.6	0.0000			
56Ni	6.1d	158.4	0.9879	2.936−4	2.988	1.003
		269.5	0.3650			
		480.4	0.3650			
		749.9	0.4950			
		811.9	0.8600			
		1562.0	0.1400			
57Ni	1.5d	127.2	0.1293	2.887−4	4.399	0.681
		1046.0	0.0012			
		1378.0	0.7790			
		1757.0	0.0709			
		1919.0	0.1472			
		2804.0	0.0013			
		1193.0	0.0050			
		511.0	0.8016			
65Ni	2.5h	366.3	0.0461	8.009−5	4.571	0.655
		507.8	0.0029			
		609.3	0.0014			
		1116.0	0.1483			
		1482.0	0.2350			
		1623.0	0.0047			
		1725.0	0.0039			
		814.8	0.0017			
61Cu	3.4h	67.4	0.0387	1.517−4	2.001	1.497
		283.0	0.1230			
		373.0	0.0212			
		529.2	0.0041			
		588.6	0.0118			
		656.0	0.1049			
		816.7	0.0036			
		841.2	0.0024			
		908.6	0.0119			
		1100.0	0.0028			
		1185.0	0.0363			
		1198.0	0.0082			
		511.0	1.2290			
62Cu	9.7m	875.7	0.0015	1.881−4	1.784	1.679
		1173.0	0.0034			
		1966.0	0.0009			
		511.0	1.9560			
64Cu	12.7h	1346.0	0.0049	3.514−5	1.856	1.614
		511.0	0.3574			
67Cu	61.9d	91.3	0.0700	2.363−5	0.230	
		93.3	0.1610			
		184.6	0.4870			
		208.9	0.0012			
		300.2	0.0080			
		393.5	0.0022			

Nuclide	Half-life	E	Prob.	Γ	T	μ
62Zn	9.3h	40.8	0.2695	8.990−5	1.882	1.592
		243.4	0.0267			
		247.0	0.0201			
		260.5	0.0143			
		304.9	0.0031			
		349.6	0.0048			
		394.1	0.0236			
		507.6	0.1568			
		548.4	0.1622			
		596.7	0.2750			
		637.4	0.0027			
		921.2	0.0020			
		511.0	0.1520			
65Zn	244.4d	1116.0	0.5075	8.924−5	4.057	0.738
		557.7	0.0001			
		511.0	0.0283			
69Zn	55.6m	413.9	0.0000	1.168−9	1.268	2.362
69mZn	13.8h	438.6	0.9489	7.983−5	1.391	2.153
66Ga	9.4h	448.9	0.0011	3.422−4	4.842	0.619
		686.3	0.0026			
		833.6	0.0619			
		856.7	0.0012			
		907.0	0.0012			
		1039.0	0.3880			
		1190.0	0.0014			
		1233.0	0.0054			
		1333.0	0.0127			
		1356.0	0.0038			
		1357.0	0.0013			
		1357.0	0.0019			
		1419.0	0.0065			
		1459.0	0.0010			
		1508.0	0.0059			
		1899.0	0.0044			
		1919.0	0.0219			
		2174.0	0.0012			
		2190.0	0.0582			
		2214.0	0.0014			
		2393.0	0.0026			
		2423.0	0.0199			
		2752.0	0.2371			
		2781.0	0.0013			
		2934.0	0.0022			
		3229.0	0.0152			
		3257.0	0.0010			
		3381.0	0.0145			
		3423.0	0.0084			
		3433.0	0.0029			
		3767.0	0.0014			
		3792.0	0.0104			
		4086.0	0.0116			
		4296.0	0.0356			
		4462.0	0.0073			
		4807.0	0.0151			
		1349.0	0.0105			
		511.0	1.1050			
67Ga	3.3d	91.3	0.0286	3.004−5	0.628	4.769
		93.3	0.3570			
		184.6	0.1971			
		208.9	0.0224			
		300.2	0.1599			
		393.5	0.0448			
		887.7	0.0014			
		629.4	0.0012			
68Ga	1.1h	1077.0	0.0329	1.763−4	1.863	1.608
		1883.0	0.0014			
		1014.0	0.0024			
		511.0	1.7780			
72Ga	14.1h	11.0	0.0003	3.895−4	4.642	0.645
		112.5	0.0014			
		289.5	0.0020			
		336.6	0.0011			
		381.2	0.0028			
		428.4	0.0018			
		587.4	0.0012			
		600.8	0.0559			
		629.9	0.2439			
		735.6	0.0036			
		786.4	0.0317			
		810.2	0.0201			
		834.0	0.9565			
		861.1	0.0091			
		894.2	0.0985			
		924.1	0.0014			
		939.4	0.0026			
		970.5	0.0110			
		999.9	0.0080			
		1051.0	0.0692			
		1215.0	0.0080			
		1231.0	0.0144			
		1260.0	0.0115			
		1277.0	0.0156			
		1464.0	0.0356			
		1568.0	0.0020			
		1572.0	0.0083			
		1597.0	0.0424			
		1681.0	0.0087			
		1711.0	0.0038			
		1838.0	0.0020			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1861.0	0.0523			
		1878.0	0.0023			
		1920.0	0.0016			
		1991.0	0.0011			
		2029.0	0.0012			
		2109.0	0.0103			
		2202.0	0.2611			
		2214.0	0.0019			
		2491.0	0.0748			
		2508.0	0.1282			
		2515.0	0.0025			
		2622.0	0.0013			
		2844.0	0.0041			
		1275.0	0.0155			
68Ge	288d	10.3	0.0546	1.634-5	0.002	1345.
71Ge	11.8d	10.3	0.0552	1.653-5	0.002	1345.
77Ge	11.3h	10.5	0.0057	1.929-4	2.748	1.090
		10.5	0.0111			
		11.7	0.0026			
		156.4	0.0079			
		159.1	0.0023			
		177.3	0.0018			
		194.8	0.0175			
		209.0	0.0093			
		211.0	0.3049			
		215.5	0.2830			
		219.1	0.0029			
		254.7	0.0021			
		264.4	0.5330			
		268.1	0.0059			
		337.6	0.0023			
		338.7	0.0066			
		367.4	0.1386			
		416.3	0.2159			
		419.7	0.0122			
		439.4	0.0020			
		461.4	0.0125			
		475.4	0.0098			
		520.0	0.0029			
		558.0	0.1588			
		582.5	0.0077			
		614.4	0.0050			
		624.8	0.0018			
		631.8	0.0689			
		634.4	0.0206			
		673.1	0.0053			
		673.1	0.0013			
		698.5	0.0023			
		705.2	0.0011			
		712.4	0.0082			
		714.3	0.0707			
		743.7	0.0018			
		745.8	0.0096			
		749.9	0.0087			
		766.7	0.0078			
		781.3	0.0100			
		784.8	0.0130			
		794.3	0.0027			
		810.4	0.0224			
		813.4	0.0013			
		823.1	0.0059			
		843.2	0.0021			
		875.2	0.0077			
		896.5	0.0012			
		901.0	0.0012			
		907.0	0.0094			
		913.8	0.0036			
		923.1	0.0068			
		925.5	0.0071			
		928.8	0.0103			
		939.4	0.0028			
		996.6	0.0010			
		1062.0	0.0015			
		1081.0	0.0024			
		1085.0	0.0598			
		1115.0	0.0010			
		1125.0	0.0012			
		1152.0	0.0019			
		1193.0	0.0254			
		1215.0	0.0013			
		1242.0	0.0039			
		1264.0	0.0084			
		1280.0	0.0017			
		1309.0	0.0048			
		1313.0	0.0035			
		1320.0	0.0030			
		1368.0	0.0331			
		1453.0	0.0012			
		1476.0	0.0024			
		1479.0	0.0013			
		1496.0	0.0049			
		1539.0	0.0014			
		1574.0	0.0065			
		1710.0	0.0030			
		1720.0	0.0039			
		1727.0	0.0015			
		1846.0	0.0017			
		2000.0	0.0055			
		2077.0	0.0023			
		2090.0	0.0024			
		2126.0	0.0020			
		2342.0	0.0047			
		1101.0	0.0291			

Nuclide	Half-life	E	Prob.	Γ	T	μ
72As	1.1d	11.0	0.0080	3.118−4	2.708	1.106
		600.8	0.0031			
		629.9	0.0786			
		786.4	0.0047			
		834.0	0.7970			
		894.2	0.0077			
		1051.0	0.0099			
		1215.0	0.0021			
		1390.0	0.0024			
		1464.0	0.0110			
		1476.0	0.0051			
		1568.0	0.0013			
		1681.0	0.0012			
		1711.0	0.0024			
		1991.0	0.0034			
		2106.0	0.0063			
		2109.0	0.0027			
		2202.0	0.0047			
		2248.0	0.0031			
		2508 0	0.0032			
		2622.0	0.0039			
		2940.0	0.0029			
		3804.0	0.0010			
		1929.0	0.0185			
		511.0	1.7610			
73As	80.3d	11.0	0.1326	3.784−5	0.005	662.1
		53.4	0.1030			
		13.3	0.0009			
74As	17.8d	11.0	0.0222	1.456−4	2.031	1.475
		595.9	0.5985			
		608.4	0.0055			
		1204.0	0.0029			
		1194.0	0.0009			
		511.0	0.5923			
		634.8	0.1543			
		685.4	0.0003			
76As	1.1d	559.1	0.4470	7.342−5	2.894	1.035
		563.2	0.0117			
		571.3	0.0014			
		657.0	0.0608			
		665.3	0.0039			
		740.1	0.0012			
		771.8	0.0012			
		867.6	0.0013			
		1130.0	0.0014			
		1213.0	0.0163			
		1216.0	0.0384			
		1229.0	0.0139			
		1439.0	0.0033			
		1454.0	0.0013			
		1788.0	0.0033			
		2096.0	0.0066			
		2111.0	0.0039			
		1152.0	0.0065			
77As	1.6d	87.9	0.0020	1.691−6	1.182	2.534
		161.9	0.0013			
		239.0	0.0157			
		249.8	0.0042			
		520.7	0.0061			
		245.5	0.0010			
73Se	7.1h	10.5	0.0841	2.950−4	1.350	2.218
		10.5	0.1639			
		11.7	0.0379			
		67.0	0.7730			
		361.1	0.9650			
		509.5	0.0106			
		764.4	0.0014			
		865.4	0.0047			
		901.2	0.0014			
		1111.0	0.0018			
		1423.0	0.0014			
		894.4	0.0042			
		511.0	1.3170			
75Se	119.8d	10.5	0.1611	2.323−4	0.330	9.079
		10.5	0.3140			
		11.7	0.0727			
		66.0	0.0102			
		96.7	0.0341			
		121.1	0.1674			
		136.0	0.5920			
		198.6	0.0145			
		264.6	0.5980			
		279.5	0.2524			
		303.9	0.0132			
		400.7	0.1142			
		332.7	0.0010			
77Br	2.4d	11.2	0.1543	1.919−4	0.972	3.083
		11.2	0.3003			
		12.5	0.0718			
		87.9	0.0140			
		138.9	0.0013			
		161.9	0.0110			
		180.7	0.0028			
		200.4	0.0121			
		239.0	0.2310			
		249.8	0.0298			
		270.8	0.0032			
		281.7	0.0229			
		297.2	0.0416			
		303.8	0.0118			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		385.0	0.0084			
		439.5	0.0156			
		484.6	0.0100			
		517.9	0.0016			
		520.7	0.2241			
		565.9	0.0043			
		567.9	0.0086			
		574.6	0.0119			
		578.9	0.0296			
		585.5	0.0157			
		755.3	0.0167			
		817.8	0.0208			
		1005.0	0.0092			
		441.4	0.0081			
		511.0	0.0146			
80Br	17.4m	11.2	0.0094	2.153−5	1.842	1.626
		11.2	0.0182			
		12.5	0.0044			
		665.8	0.0105			
		957.5	0.0007			
		511.0	0.0440			
		616.2	0.0660			
		639.4	0.0026			
		703.8	0.0019			
		1256.0	0.0007			
80mBr	4.4h	11.9	0.2289	1.900−4	0.004	698.2
		11.9	0.4444			
		13.3	0.1097			
		37.0	0.3900			
		48.9	0.0034			
82Br	1.5d	92.2	0.0072	4.358−4	3.310	0.905
		137.4	0.0014			
		221.4	0.0226			
		273.5	0.0080			
		554.3	0.7056			
		606.3	0.0117			
		619.1	0.4307			
		698.3	0.2816			
		776.5	0.8331			
		827.8	0.2416			
		952.1	0.0037			
		1008.0	0.0127			
		1044.0	0.2733			
		1081.0	0.0062			
		1318.0	0.2691			
		1426.0	0.0011			
		1475.0	0.1658			
		1650.0	0.0074			
		1780.0	0.0011			
		743.6	0.0076			

Nuclide	Half-life	E	Prob.	Γ	T	μ
83Br	2.4h	529.6	0.0130	1.382−6	1.859	1.612
		537.4	0.0010			
84Br	31.8m	230.2	0.0031	2.344−4	5.207	0.575
		354.7	0.0031			
		382.0	0.0057			
		604.8	0.0177			
		736.5	0.0131			
		802.2	0.0608			
		881.5	0.4220			
		947.5	0.0036			
		987.3	0.0078			
		1006.0	0.0046			
		1016.0	0.0625			
		1083.0	0.0014			
		1119.0	0.0014			
		1185.0	0.0011			
		1213.0	0.0262			
		1464.0	0.0198			
		1535.0	0.0010			
		1578.0	0.0066			
		1608.0	0.0040			
		1741.0	0.0165			
		1819.0	0.0024			
		1877.0	0.0114			
		1897.0	0.1494			
		2030.0	0.0211			
		2094.0	0.0022			
		2201.0	0.0118			
		2484.0	0.0675			
		2594.0	0.0014			
		2623.0	0.0030			
		2759.0	0.0049			
		2824.0	0.0114			
		2989.0	0.0018			
		3045.0	0.0253			
		3202.0	0.0021			
		3235.0	0.0207			
		3366.0	0.0291			
		3927.0	0.0688			
		4085.0	0.0028			
		1123.0	0.0067			
85Br	2.9m	794.8	0.0010	1.057−5	3.590	0.834
		802.4	0.0256			
		861.8	0.0023			
		865.2	0.0018			
		913.3	0.0013			
		919.1	0.0065			
		924.6	0.0163			
		1038.0	0.0010			
		1727.0	0.0038			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1833.0	0.0015			
		789.3	0.0108			
79Kr	1.5d	11.9	0.1491	1.628−4	0.950	3.154
		11.9	0.2894			
		13.3	0.0715			
		44.2	0.0021			
		136.0	0.0100			
		180.2	0.0010			
		208.5	0.0078			
		217.0	0.0240			
		261.3	0.1270			
		299.5	0.0157			
		306.3	0.0260			
		344.7	0.0024			
		389.0	0.0152			
		397.6	0.0950			
		523.0	0.0025			
		525.3	0.0043			
		606.1	0.0810			
		832.0	0.0126			
		934.8	0.0013			
		1026.0	0.0016			
		1115.0	0.0037			
		1332.0	0.0044			
		788.6	0.0055			
		511.0	0.1421			
81Kr	2.1+5y	11.9	0.1486	1.172−4	0.004	795.2
		11.9	0.2885			
		13.3	0.0713			
		276.0	0.0360			
83mKr	1.8h	12.6	0.0457	3.209−5	0.004	801.4
		12.7	0.0886			
		14.1	0.0226			
		32.2	0.0005			
85Kr	10.7y	514.0	0.0043	4.170−7	1.782	1.681
85mKr	4.5h	12.6	0.0112	4.328−5	0.331	9.045
		12.7	0.0216			
		14.1	0.0055			
		304.9	0.1399			
		13.3	0.0061			
		13.4	0.0118			
		15.0	0.0031			
		129.8	0.0030			
		151.2	0.7528			
		581.3	0.0002			
87Kr	1.3h	13.3	0.0003	1.153−4	4.756	0.630
		13.4	0.0007			
		15.0	0.0002			
		402.6	0.4950			
		673.9	0.0191			
		814.2	0.0017			
		836.4	0.0075			
		845.4	0.0728			
		946.6	0.0014			
		1175.0	0.0112			
		1338.0	0.0065			
		1382.0	0.0029			
		1390.0	0.0012			
		1531.0	0.0036			
		1578.0	0.0013			
		1611.0	0.0010			
		1741.0	0.0205			
		1843.0	0.0014			
		2012.0	0.0290			
		2408.0	0.0021			
		2555.0	0.0931			
		2558.0	0.0391			
		2811.0	0.0032			
		3309.0	0.0045			
		1620.0	0.0065			
88Kr	2.8h	13.3	0.0237	2.726−4	5.380	0.557
		13.4	0.0459			
		15.0	0.0120			
		27.5	0.0206			
		122.3	0.0020			
		166.0	0.0310			
		196.3	0.2599			
		240.7	0.0025			
		311.7	0.0011			
		334.7	0.0015			
		362.2	0.0225			
		390.5	0.0064			
		421.7	0.0013			
		471.8	0.0073			
		677.3	0.0024			
		788.3	0.0053			
		790.3	0.0012			
		834.8	0.1298			
		850.3	0.0017			
		862.3	0.0067			
		944.9	0.0029			
		985.8	0.0131			
		990.1	0.0014			
		1040.0	0.0048			
		1050.0	0.0014			
		1141.0	0.0128			
		1179.0	0.0100			
		1185.0	0.0069			
		1210.0	0.0014			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1213.0	0.0014			
		1245.0	0.0036			
		1251.0	0.0112			
		1325.0	0.0016			
		1352.0	0.0016			
		1370.0	0.0148			
		1407.0	0.0022			
		1465.0	0.0011			
		1518.0	0.0215			
		1530.0	0.1093			
		1604.0	0.0046			
		1686.0	0.0066			
		1893.0	0.0014			
		1909.0	0.0010			
		2030.0	0.0453			
		2035.0	0.0374			
		2186.0	0.0029			
		2196.0	0.1318			
		2232.0	0.0339			
		2352.0	0.0073			
		2392.0	0.3460			
		2409.0	0.0010			
		2548.0	0.0062			
		2771.0	0.0015			
		1000.0	0.0189			
89Kr	3.2m	13.3	0.0012	2.589−4	4.796	0.625
		13.4	0.0023			
		15.0	0.0006			
		196.2	0.0022			
		197.5	0.0182			
		205.0	0.0012			
		220.9	0.2000			
		264.1	0.0066			
		338.2	0.0034			
		345.0	0.0118			
		356.1	0.0414			
		364.9	0.0090			
		369.3	0.0138			
		402.2	0.0032			
		411.4	0.0256			
		438.1	0.0096			
		466.1	0.0080			
		490.8	0.0032			
		497.5	0.0664			
		498.6	0.0114			
		557.3	0.0016			
		577.0	0.0564			
		585.8	0.1660			
		626.2	0.0060			
		629.8	0.0034			
		665.7	0.0011			
		671.4	0.0011			
		674.1	0.0023			
		696.2	0.0178			
		707.0	0.0050			
		710.0	0.0078			
		729.6	0.0030			
		738.4	0.0420			
		747.4	0.0011			
		762.9	0.0040			
		762.9	0.0092			
		776.5	0.0112			
		826.7	0.0076			
		835.5	0.0110			
		857.4	0.0029			
		867.1	0.0592			
		870.4	0.0016			
		904.3	0.0718			
		930.9	0.0062			
		944.2	0.0016			
		953.2	0.0011			
		960.4	0.0032			
		974.4	0.0098			
		997.4	0.0066			
		1011.0	0.0011			
		1044.0	0.0041			
		1076.0	0.0024			
		1088.0	0.0036			
		1103.0	0.0090			
		1108.0	0.0292			
		1117.0	0.0166			
		1132.0	0.0016			
		1163.0	0.0021			
		1172.0	0.0098			
		1182.0	0.0017			
		1186.0	0.0018			
		1229.0	0.0014			
		1236.0	0.0059			
		1274.0	0.0136			
		1303.0	0.0010			
		1324.0	0.0306			
		1335.0	0.0013			
		1341.0	0.0019			
		1368.0	0.0015			
		1372.0	0.0013			
		1413.0	0.0026			
		1422.0	0.0022			
		1461.0	0.0012			
		1464.0	0.0018			
		1469.0	0.0019			
		1473.0	0.0688			
		1501.0	0.0132			
		1506.0	0.0011			
		1530.0	0.0332			
		1534.0	0.0512			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1555.0	0.0015			
		1574.0	0.0019			
		1634.0	0.0082			
		1644.0	0.0034			
		1667.0	0.0013			
		1677.0	0.0014			
		1684.0	0.0013			
		1692.0	0.0026			
		1694.0	0.0438			
		1721.0	0.0022			
		1778.0	0.0076			
		1788.0	0.0011			
		1811.0	0.0014			
		1837.0	0.0012			
		1840.0	0.0035			
		1868.0	0.0020			
		1880.0	0.0016			
		1903.0	0.0104			
		1939.0	0.0064			
		1967.0	0.0013			
		1999.0	0.0012			
		2012.0	0.0156			
		2021.0	0.0024			
		2047.0	0.0026			
		2101.0	0.0094			
		2160.0	0.0053			
		2196.0	0.0013			
		2280.0	0.0020			
		2377.0	0.0080			
		2401.0	0.0072			
		2598.0	0.0011			
		2645.0	0.0042			
		2751.0	0.0012			
		2782.0	0.0076			
		2794.0	0.0068			
		2820.0	0.0013			
		2853.0	0.0024			
		2866.0	0.0174			
		2879.0	0.0032			
		3018.0	0.0025			
		3029.0	0.0027			
		3107.0	0.0019			
		3140.0	0.0104			
		3172.0	0.0010			
		3220.0	0.0043			
		3362.0	0.0104			
		3371.0	0.0062			
		3400.0	0.0014			
		3533.0	0.0134			
		3584.0	0.0026			
		3718.0	0.0084			
		3733.0	0.0014			
		3781.0	0.0013			
		3827.0	0.0014			
		3843.0	0.0011			
		3902.0	0.0013			
		3923.0	0.0041			
		3965.0	0.0021			
		3977.0	0.0027			
		3996.0	0.0014			
		4048.0	0.0012			
		4341.0	0.0010			
		4489.0	0.0013			
		2181.0	0.0712			
90Kr	32.3s	13.3	0.0166	2.061−4	4.084	0.733
		13.4	0.0321			
		15.0	0.0084			
		106.1	0.0038			
		120.9	0.0272			
		121.8	0.3211			
		227.8	0.0012			
		234.4	0.0250			
		242.2	0.0959			
		249.3	0.0128			
		309.1	0.0013			
		356.0	0.0010			
		386.5	0.0012			
		419.1	0.0031			
		429.9	0.0014			
		433.5	0.0125			
		470.3	0.0023			
		476.1	0.0013			
		492.6	0.0116			
		498.6	0.0015			
		539.5	0.2947			
		554.4	0.0485			
		565.2	0.0020			
		569.2	0.0058			
		614.4	0.0020			
		619.1	0.0104			
		626.5	0.0027			
		661.2	0.0032			
		677.7	0.0037			
		690.7	0.0038			
		705.5	0.0012			
		731.3	0.0142			
		925.5	0.0021			
		941.9	0.0128			
		967.3	0.0021			
		980.3	0.0018			
		1039.0	0.0040			
		1104.0	0.0033			
		1119.0	0.3730			
		1166.0	0.0079			
		1240.0	0.0034			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1310.0	0.0026			
		1341.0	0.0015			
		1387.0	0.0019			
		1424.0	0.0281			
		1466.0	0.0024			
		1538.0	0.0925			
		1552.0	0.0210			
		1620.0	0.0015			
		1658.0	0.0127			
		1780.0	0.0642			
		1885.0	0.0022			
		1900.0	0.0018			
		1981.0	0.0016			
		2006.0	0.0011			
		2127.0	0.0132			
		2149.0	0.0026			
		2191.0	0.0011			
		2417.0	0.0018			
		2433.0	0.0015			
		2469.0	0.0045			
		2727.0	0.0084			
		2855.0	0.0031			
		2866.0	0.0018			
		3344.0	0.0011			
		3855.0	0.0012			
		1519.0	0.0181			
81Rb	4.6h	12.6	0.1579	2.253−4	1.217	2.461
		12.7	0.3061			
		14.1	0.0780			
		180.2	0.0012			
		190.3	0.6570			
		243.8	0.0020			
		357.4	0.0056			
		388.8	0.0028			
		446.1	0.1895			
		456.7	0.0231			
		476.7	0.0039			
		510.5	0.0046			
		537.6	0.0155			
		549.0	0.0033			
		568.9	0.0039			
		729.1	0.0022			
		803.7	0.0066			
		834.7	0.0063			
		977.2	0.0038			
		1041.0	0.0039			
		626.6	0.0103			
		511.0	0.6620			
82Rb	1.2m	12.6	0.0075	2.076−4	1.907	1.571
		12.7	0.0146			
		14.1	0.0037			
		698.3	0.0015			
		776.5	0.1350			
		1395.0	0.0051			
		1634.0	0.0033			
		511.0	1.9100			
83Rb	86.2d	12.6	0.1639	2.072−4	1.366	2.194
		12.7	0.3177			
		14.1	0.0809			
		520.4	0.4590			
		529.6	0.3029			
		552.6	0.1639			
		790.1	0.0067			
		799.4	0.0024			
		591.9	0.0014			
84Rb	32.9d	12.6	0.1136	2.317−4	2.549	1.175
		12.7	0.2201			
		14.1	0.0561			
		881.5	0.6768			
		1016.0	0.0032			
		1897.0	0.0093			
		511.0	0.5434			
86Rb	18.7d	1077.0	0.0878	1.458−5	4.010	0.747
88Rb	17.8m	898.0	0.1404	8.594−5	5.240	0.572
		1366.0	0.0010			
		1382.0	0.0074			
		1780.0	0.0022			
		1836.0	0.2140			
		2111.0	0.0012			
		2119.0	0.0042			
		2578.0	0.0018			
		2678.0	0.0196			
		2734.0	0.0011			
		3009.0	0.0024			
		3219.0	0.0021			
		3486.0	0.0013			
		4743.0	0.0014			
		1475.0	0.0033			
89Rb	15.4m	272.4	0.0142	2.934−4	4.742	0.632
		289.8	0.0054			
		657.7	0.0998			
		766.8	0.0016			
		947.7	0.0922			
		1025.0	0.0023			
		1032.0	0.5800			
		1220.0	0.0022			
		1228.0	0.0012			
		1248.0	0.4234			
		1473.0	0.0035			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1501.0	0.0020			
		1538.0	0.0255			
		1940.0	0.0033			
		2007.0	0.0238			
		2058.0	0.0023			
		2196.0	0.1334			
		2280.0	0.0018			
		2570.0	0.0986			
		2707.0	0.0203			
		3509.0	0.0115			
		1950.0	0.0118			
90Rb	2.6m	824.2	0.0075	2.445-4	5.755	0.521
		831.7	0.3260			
		997.9	0.0051			
		1039.0	0.0035			
		1061.0	0.0779			
		1141.0	0.0013			
		1302.0	0.0012			
		1326.0	0.0015			
		1375.0	0.0035			
		1590.0	0.0016			
		1632.0	0.0019			
		1666.0	0.0037			
		1669.0	0.0017			
		1804.0	0.0067			
		1830.0	0.0017			
		1892.0	0.0044			
		2139.0	0.0036			
		2148.0	0.0024			
		2208.0	0.0051			
		2216.0	0.0059			
		2240.0	0.0018			
		2474.0	0.0068			
		2477.0	0.0012			
		2689.0	0.0014			
		2724.0	0.0016			
		2789.0	0.0010			
		2981.0	0.0010			
		3039.0	0.0082			
		3081.0	0.0017			
		3205.0	0.0055			
		3295.0	0.0095			
		3304.0	0.0098			
		3317.0	0.0031			
		3362.0	0.0108			
		3383.0	0.0746			
		3534.0	0.0447			
		3539.0	0.0017			
		3627.0	0.0014			
		3814.0	0.0065			
		4062.0	0.0026			
		4087.0	0.0028			
		4135.0	0.0746			
		4332.0	0.0043			
		4356.0	0.0049			
		4366.0	0.0883			
		4599.0	0.0017			
		4646.0	0.0248			
		4974.0	0.0023			
		5070.0	0.0016			
		5187.0	0.0129			
		5254.0	0.0026			
		5333.0	0.0048			
		2428.0	0.0259			
90mRb	4.3m	13.3	0.0033	4.339-4	5.096	0.588
		13.4	0.0064			
		15.0	0.0017			
		106.9	0.0020			
		196.8	0.0030			
		314.5	0.0084			
		442.3	0.0012			
		522.1	0.0041			
		551.2	0.0087			
		720.7	0.0057			
		779.9	0.0028			
		824.2	0.0746			
		831.7	0.9321			
		872.0	0.0054			
		921.2	0.0023			
		952.4	0.0173			
		1014.0	0.0026			
		1027.0	0.0014			
		1061.0	0.0948			
		1141.0	0.0082			
		1243.0	0.0312			
		1272.0	0.0163			
		1299.0	0.0021			
		1375.0	0.1696			
		1377.0	0.0233			
		1392.0	0.0045			
		1425.0	0.0028			
		1457.0	0.0026			
		1460.0	0.0020			
		1486.0	0.0021			
		1489.0	0.0035			
		1577.0	0.0012			
		1604.0	0.0048			
		1659.0	0.0045			
		1666.0	0.0459			
		1692.0	0.0028			
		1696.0	0.0170			
		1739.0	0.0197			
		1747.0	0.0026			
		1794.0	0.0087			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1838.0	0.0085			
		1877.0	0.0046			
		1892.0	0.0065			
		1903.0	0.0014			
		1942.0	0.0063			
		2128.0	0.0537			
		2139.0	0.0012			
		2201.0	0.0049			
		2208.0	0.0017			
		2245.0	0.0030			
		2257.0	0.0068			
		2298.0	0.0038			
		2311.0	0.0030			
		2335.0	0.0021			
		2443.0	0.0027			
		2497.0	0.0074			
		2538.0	0.0018			
		2544.0	0.0057			
		2592.0	0.0066			
		2618.0	0.0063			
		2724.0	0.0051			
		2741.0	0.0015			
		2753.0	0.1184			
		2834.0	0.0190			
		2900.0	0.0011			
		2912.0	0.0013			
		3032.0	0.0045			
		3039.0	0.0027			
		3149.0	0.0255			
		3198.0	0.0015			
		3215.0	0.0014			
		3317.0	0.1473			
		3371.0	0.0041			
		3383.0	0.0043			
		3503.0	0.0243			
		3573.0	0.0158			
		3621.0	0.0060			
		3627.0	0.0093			
		3972.0	0.0037			
		4116.0	0.0036			
		4193.0	0.0088			
		4210.0	0.0093			
		4257.0	0.0076			
		4454.0	0.0121			
		4726.0	0.0011			
		2072.0	0.0083			
82Sr	25.0d	13.3	0.1676	1.065−4	0.004	842.8
		13.4	0.3243			
		15.0	0.0851			
85Sr	64.8d	13.3	0.1707	2.038−4	1.330	2.252
		13.4	0.3301			
		15.0	0.0866			
		514.0	0.9927			
		868.5	0.0001			
85mSr	1.1h	14.1	0.0044	6.004−5	0.334	8.972
		14.2	0.0085			
		15.8	0.0023			
		231.7	0.8472			
		238.7	0.0032			
		13.3	0.0226			
		13.4	0.0437			
		15.0	0.0115			
		151.2	0.1212			
87mSr	2.8h	14.1	0.0292	8.010−5	1.043	2.872
		14.2	0.0563			
		15.8	0.0151			
		388.4	0.8225			
		13.3	0.0005			
		13.4	0.0010			
		15.0	0.0003			
89Sr	50.6d	909.1	0.0002	2.205−8	3.493	0.858
91Sr	9.5h	261.2	0.0044	1.116−4	3.465	0.865
		272.7	0.0025			
		274.7	0.0100			
		379.9	0.0014			
		620.1	0.0172			
		631.3	0.0054			
		652.3	0.0289			
		652.9	0.0780			
		653.0	0.0045			
		749.8	0.2298			
		761.4	0.0056			
		820.8	0.0016			
		879.7	0.0018			
		925.8	0.0374			
		1024.0	0.3250			
		1055.0	0.0022			
		1141.0	0.0012			
		1281.0	0.0091			
		1413.0	0.0095			
		1474.0	0.0016			
		1651.0	0.0028			
		1724.0	0.0016			
		776.3	0.0119			
92Sr	2.7h	241.5	0.0297	1.940−4	4.604	0.651
		430.6	0.0333			
		491.3	0.0026			
		650.7	0.0037			
		953.3	0.0360			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1142.0	0.0288			
		1384.0	0.9000			
		664.6	0.0017			
93Sr	7.3m	14.9	0.0277	3.642–4	3.833	0.782
		15.0	0.0534			
		16.7	0.0147			
		166.6	0.0062			
		168.7	0.1821			
		260.1	0.0732			
		285.7	0.0027			
		332.0	0.0035			
		346.5	0.0324			
		377.4	0.0147			
		406.7	0.0042			
		424.7	0.0026			
		428.0	0.0015			
		432.7	0.0147			
		440.8	0.0019			
		446.2	0.0233			
		482.0	0.0112			
		483.7	0.0165			
		486.7	0.0012			
		518.5	0.0013			
		541.9	0.0072			
		545.8	0.0039			
		559.9	0.0020			
		572.0	0.0021			
		586.5	0.0044			
		590.3	0.6720			
		593.8	0.0110			
		596.1	0.0132			
		610.9	0.0107			
		631.0	0.0019			
		633.5	0.0011			
		650.6	0.0019			
		658.6	0.0042			
		663.6	0.0163			
		687.8	0.0066			
		690.1	0.0100			
		692.0	0.0022			
		710.4	0.2150			
		716.8	0.0029			
		718.3	0.0148			
		771.2	0.0115			
		776.1	0.0026			
		782.8	0.0022			
		788.7	0.0076			
		791.1	0.0026			
		795.3	0.0023			
		834.9	0.0165			
		837.8	0.0012			
		858.5	0.0072			
		875.7	0.2419			
		888.1	0.2184			
		901.0	0.0069			
		910.2	0.0081			
		922.7	0.0033			
		927.7	0.0063			
		930.9	0.0040			
		952.6	0.0011			
		991.6	0.0012			
		1032.0	0.0010			
		1035.0	0.0020			
		1041.0	0.0316			
		1055.0	0.0034			
		1064.0	0.0037			
		1078.0	0.0024			
		1094.0	0.0174			
		1105.0	0.0015			
		1123.0	0.0397			
		1137.0	0.0019			
		1181.0	0.0024			
		1196.0	0.0097			
		1215.0	0.0247			
		1239.0	0.0012			
		1243.0	0.0079			
		1266.0	0.0110			
		1269.0	0.0706			
		1278.0	0.0086			
		1309.0	0.0040			
		1321.0	0.0258			
		1333.0	0.0047			
		1335.0	0.0067			
		1379.0	0.0035			
		1387.0	0.0343			
		1434.0	0.0089			
		1439.0	0.0050			
		1466.0	0.0010			
		1469.0	0.0052			
		1483.0	0.0010			
		1492.0	0.0054			
		1520.0	0.0032			
		1539.0	0.0010			
		1552.0	0.0101			
		1610.0	0.0019			
		1634.0	0.0143			
		1648.0	0.0088			
		1669.0	0.0016			
		1685.0	0.0071			
		1694.0	0.0255			
		1699.0	0.0329			
		1707.0	0.0110			
		1765.0	0.0106			
		1775.0	0.0016			
		1811.0	0.0139			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1816.0	0.0023			
		1894.0	0.0012			
		1908.0	0.0017			
		1929.0	0.0116			
		1945.0	0.0055			
		2011.0	0.0012			
		2055.0	0.0013			
		2064.0	0.0062			
		2105.0	0.0031			
		2129.0	0.0010			
		2179.0	0.0029			
		2230.0	0.0153			
		2296.0	0.0073			
		2365.0	0.0156			
		2416.0	0.0011			
		2544.0	0.0299			
		2574.0	0.0013			
		2689.0	0.0210			
		2828.0	0.0017			
		2986.0	0.0019			
		3007.0	0.0012			
		1802.0	0.0230			
86Y	14.7h	14.1	0.1171	6.256-4	3.825	0.783
		14.2	0.2261			
		15.8	0.0607			
		132.3	0.0017			
		182.3	0.0011			
		187.9	0.0126			
		190.8	0.0102			
		209.8	0.0040			
		235.4	0.0040			
		237.9	0.0013			
		252.0	0.0037			
		264.5	0.0054			
		307.0	0.0347			
		331.1	0.0083			
		370.3	0.0082			
		380.4	0.0045			
		382.9	0.0363			
		426.0	0.0031			
		439.5	0.0020			
		443.1	0.1691			
		444.2	0.0064			
		469.2	0.0030			
		515.2	0.0489			
		580.6	0.0479			
		608.3	0.0201			
		618.2	0.0021			
		627.7	0.3259			
		644.8	0.0223			
		645.9	0.0916			
		689.3	0.0017			
		702.2	0.0025			
		703.3	0.1543			
		709.9	0.0262			
		719.2	0.0022			
		740.8	0.0136			
		767.6	0.0239			
		768.2	0.0032			
		777.4	0.2244			
		783.6	0.0026			
		826.0	0.0330			
		833.7	0.0148			
		835.7	0.0437			
		883.0	0.0025			
		887.4	0.0044			
		955.3	0.0104			
		971.4	0.0027			
		1018.0	0.0018			
		1024.0	0.0380			
		1077.0	0.8250			
		1093.0	0.0069			
		1102.0	0.0020			
		1133.0	0.0030			
		1153.0	0.3052			
		1163.0	0.0118			
		1253.0	0.0153			
		1270.0	0.0065			
		1284.0	0.0029			
		1295.0	0.0029			
		1296.0	0.0054			
		1349.0	0.0294			
		1405.0	0.0018			
		1415.0	0.0033			
		1508.0	0.0035			
		1533.0	0.0022			
		1536.0	0.0012			
		1564.0	0.0018			
		1696.0	0.0064			
		1712.0	0.0017			
		1724.0	0.0055			
		1791.0	0.0100			
		1802.0	0.0165			
		1854.0	0.1716			
		1921.0	0.2079			
		2017.0	0.0013			
		2088.0	0.0025			
		2292.0	0.0012			
		2482.0	0.0012			
		2568.0	0.0225			
		2610.0	0.0124			
		2642.0	0.0017			
		2795.0	0.0021			
		2866.0	0.0038			
		3070.0	0.0012			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		3334.0	0.0012			
		1366.0	0.0103			
		511.0	0.6637			
87Y	3.3d	14.1	0.1751	1.861−4	1.205	2.486
		14.2	0.3380			
		15.8	0.0908			
		484.7	0.9394			
		511.0	0.0032			
88Y	106.6d	14.1	0.1744	4.788−4	4.525	0.662
		14.2	0.3367			
		15.8	0.0905			
		898.0	0.9342			
		1836.0	0.9938			
		2734.0	0.0060			
		1188.0	0.0010			
		511.0	0.0043			
90mY	3.2h	14.9	0.0205	1.316−4	1.354	2.213
		15.0	0.0395			
		16.7	0.0109			
		202.5	0.9663			
		479.5	0.9099			
		682.0	0.0032			
91Y	58.5d	1205.0	0.0030	5.397−7	4.297	0.697
91mY	49.7m	14.9	0.0086	1.017−4	1.961	1.527
		15.0	0.0165			
		16.7	0.0045			
		557.6	0.9508			
92Y	3.5h	448.5	0.0234	3.963−5	3.821	0.784
		492.6	0.0049			
		561.1	0.0241			
		844.3	0.0125			
		912.6	0.0063			
		934.5	0.1390			
		1132.0	0.0024			
		1405.0	0.0478			
		1847.0	0.0036			
		1647.0	0.0015			
93Y	10.1h	15.7	0.0003	1.388−5	4.295	0.698
		15.8	0.0006			
		17.7	0.0002			
		266.9	0.0685			
		680.2	0.0061			
		947.1	0.0195			
		1203.0	0.0010			
		1425.0	0.0024			
		1450.0	0.0034			
		1918.0	0.0140			
		2185.0	0.0016			
		2191.0	0.0017			
		1413.0	0.0033			
86Zr	16.5h	14.9	0.3310	2.383−4	0.266	11.245
		15.0	0.6377			
		16.7	0.1753			
		29.1	0.2160			
		135.6	0.0047			
		242.8	0.9580			
		612.0	0.0570			
		620.6	0.0027			
		169.4	0.0045			
88Zr	83.4d	14.9	0.1820	1.710−4	0.842	3.559
		15.0	0.3508			
		16.7	0.0964			
		392.9	0.9732			
89Zr	3.3d	14.9	0.1398	2.655−4	2.867	1.045
		15.0	0.2694			
		16.7	0.0741			
		909.1	0.9904			
		1713.0	0.0076			
		1745.0	0.0013			
		1642.0	0.0017			
		511.0	0.4588			
95Zr	64.0d	724.2	0.4366	1.254−4	2.828	1.059
		756.7	0.5534			
97Zr	16.9h	202.2	0.0010	2.905−5	3.732	0.803
		218.7	0.0023			
		254.1	0.0125			
		272.3	0.0025			
		330.4	0.0011			
		355.4	0.0227			
		400.4	0.0032			
		507.6	0.0529			
		513.5	0.0051			
		602.5	0.0139			
		690.6	0.0025			
		699.2	0.0012			
		703.8	0.0093			
		795.7	0.0012			
		804.5	0.0065			
		829.8	0.0022			
		854.9	0.0033			
		971.4	0.0029			
		1021.0	0.0121			
		1119.0	0.0011			
		1148.0	0.0265			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1276.0	0.0097			
		1363.0	0.0135			
		1750.0	0.0135			
		1852.0	0.0035			
		344.1	0.0021			
90Nb	14.6h	15.7	0.1386	6.513−4	4.763	0.629
		15.8	0.2665			
		17.7	0.0749			
		132.6	0.0414			
		141.1	0.6900			
		329.1	0.0011			
		371.3	0.0190			
		518.2	0.0049			
		561.5	0.0013			
		827.7	0.0090			
		890.6	0.0173			
		1052.0	0.0023			
		1129.0	0.9200			
		1270.0	0.0121			
		1470.0	0.0042			
		1575.0	0.0047			
		1612.0	0.0221			
		1658.0	0.0031			
		1843.0	0.0065			
		1913.0	0.0123			
		1985.0	0.0063			
		2056.0	0.0011			
		2186.0	0.1803			
		2222.0	0.0063			
		2319.0	0.8197			
		1273.0	0.0016			
		511.0	1.0620			
91Nb	1.0+4y	15.7	0.1833	8.831−5	0.002	1330.
		15.8	0.3524			
		17.7	0.0991			
		511.0	0.0033			
91mNb	61.0d	16.5	0.1414	7.159−5	0.810	3.699
		16.6	0.2714			
		18.6	0.0780			
		104.5	0.0058			
		15.7	0.0063			
		15.8	0.0120			
		17.7	0.0034			
		1205.0	0.0350			
92Nb	3.6+7y	15.7	0.1832	3.402−4	2.734	1.096
		15.8	0.3524			
		17.7	0.0991			
		561.1	0.9970			
		934.5	0.9992			
92mNb	10.1d	15.7	0.1834	2.413−4	3.067	0.977
		15.8	0.3527			
		17.7	0.0992			
		912.6	0.0168			
		934.5	0.9915			
		1847.0	0.0085			
93mNb	14.6y	16.5	0.0323	1.421−5	0.002	1292.
		16.6	0.0620			
		18.6	0.0178			
94Nb	2.0+4y	17.4	0.0004	2.642−4	3.048	0.983
		17.5	0.0007			
		19.6	0.0002			
		702.6	1.0000			
		871.1	1.0000			
94mNb	6.3m	16.5	0.1231	5.481−5	0.003	1180.
		16.6	0.2363			
		18.6	0.0679			
		40.9	0.0008			
		871.1	0.0047			
		758.5	0.0000			
95Nb	35.1d	17.4	0.0003	1.295−4	2.930	1.023
		17.5	0.0005			
		19.6	0.0002			
		765.8	0.9981			
		389.2	0.0003			
95mNb	3.6d	16.5	0.1183	6.390−5	0.177	16.959
		16.6	0.2271			
		18.6	0.0653			
		235.7	0.2504			
		204.1	0.0013			
		629.1	0.0000			
96Nb	23.3h	17.4	0.0003	4.109−4	3.237	0.925
		17.5	0.0005			
		19.6	0.0001			
		219.1	0.0378			
		241.4	0.0387			
		349.9	0.0073			
		350.3	0.0111			
		352.5	0.0082			
		369.7	0.0012			
		371.8	0.0281			
		434.7	0.0053			
		460.0	0.2817			
		477.7	0.0012			
		480.7	0.0629			
		568.9	0.5566			
		591.2	0.0097			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		593.3	0.0031			
		719.6	0.0726			
		721.5	0.0077			
		778.2	0.9680			
		810.2	0.0987			
		812.5	0.0339			
		847.7	0.0165			
		849.9	0.2071			
		1091.0	0.4937			
		1127.0	0.0053			
		1200.0	0.2004			
		1441.0	0.0040			
		1498.0	0.0300			
		589.2	0.0053			
97Nb	1.2h	17.4	0.0004	1.168−4	2.491	1.203
		17.5	0.0007			
		19.6	0.0002			
		480.9	0.0015			
		657.9	0.9809			
		1024.0	0.0108			
		1269.0	0.0016			
		1516.0	0.0012			
		798.3	0.0049			
97mNb	60.0s	16.5	0.0037	1.259−4	2.818	1.063
		16.6	0.0072			
		18.6	0.0021			
		743.4	0.9796			
91Mo	15.5m	16.5	0.0117	1.870−4	1.804	1.661
		16.6	0.0225			
		18.6	0.0065			
		1582.0	0.0023			
		1637.0	0.0033			
		2632.0	0.0012			
		2233.0	0.0030			
		511.0	1.8760			
93Mo	3500.0y	16.5	0.1811	7.963−5	0.002	1292.
		16.6	0.3477			
		18.6	0.0999			
99Mo	2.8d	18.2	0.0090	3.046−5	2.571	1.165
		18.4	0.0173			
		20.6	0.0052			
		40.6	0.0088			
		140.5	0.0379			
		181.1	0.0623			
		366.4	0.0137			
		739.6	0.1280			
		778.0	0.0448			
		822.9	0.0013			
		680.1	0.0026			
101Mo	14.6m	18.2	0.0166	2.376−4	4.066	0.737
		18.4	0.0318			
		20.6	0.0095			
		80.9	0.0540			
		104.7	0.0016			
		105.9	0.0024			
		115.8	0.0017			
		187.4	0.0048			
		191.9	0.1920			
		195.9	0.0292			
		212.0	0.0052			
		221.8	0.0010			
		317.8	0.0024			
		327.7	0.0022			
		333.5	0.0079			
		352.9	0.0014			
		367.9	0.0011			
		370.0	0.0016			
		371.6	0.0016			
		377.9	0.0017			
		379.3	0.0023			
		381.2	0.0031			
		398.7	0.0092			
		408.5	0.0163			
		421.4	0.0042			
		432.9	0.0011			
		448.5	0.0070			
		469.0	0.0012			
		497.0	0.0014			
		499.6	0.0136			
		505.1	0.0134			
		505.9	0.1210			
		510.1	0.0100			
		512.2	0.0179			
		514.1	0.0083			
		515.8	0.0052			
		523.8	0.0018			
		533.5	0.0041			
		566.5	0.0075			
		571.7	0.0019			
		590.1	0.0576			
		590.8	0.1670			
		603.0	0.0010			
		606.8	0.0022			
		608.3	0.0109			
		611.6	0.0015			
		625.6	0.0011			
		642.6	0.0127			
		660.6	0.0023			
		695.5	0.0595			
		701.8	0.0034			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		712.9	0.0334			
		732.9	0.0027			
		739.5	0.0031			
		773.8	0.0034			
		775.8	0.0011			
		778.2	0.0098			
		790.0	0.0013			
		804.2	0.0102			
		815.2	0.0018			
		853.0	0.0024			
		859.1	0.0011			
		869.7	0.0035			
		871.1	0.0157			
		877.4	0.0315			
		883.3	0.0064			
		887.0	0.0024			
		888.7	0.0023			
		896.3	0.0022			
		903.4	0.0021			
		933.3	0.0077			
		934.2	0.0035			
		980.4	0.0027			
		987.9	0.0016			
		1007.0	0.0018			
		1011.0	0.0179			
		1011.0	0.0052			
		1012.0	0.1306			
		1019.0	0.0065			
		1020.0	0.0048			
		1050.0	0.0035			
		1064.0	0.0022			
		1066.0	0.0017			
		1161.0	0.0405			
		1169.0	0.0024			
		1184.0	0.0020			
		1187.0	0.0106			
		1200.0	0.0179			
		1210.0	0.0013			
		1249.0	0.0027			
		1251.0	0.0470			
		1260.0	0.0016			
		1286.0	0.0015			
		1291.0	0.0012			
		1293.0	0.0021			
		1304.0	0.0284			
		1314.0	0.0024			
		1326.0	0.0017			
		1337.0	0.0014			
		1339.0	0.0018			
		1346.0	0.0088			
		1356.0	0.0171			
		1378.0	0.0025			
		1380.0	0.0011			
		1383.0	0.0117			
		1395.0	0.0062			
		1414.0	0.0051			
		1418.0	0.0089			
		1430.0	0.0014			
		1432.0	0.0037			
		1441.0	0.0016			
		1486.0	0.0011			
		1514.0	0.0019			
		1518.0	0.0022			
		1520.0	0.0024			
		1523.0	0.0030			
		1527.0	0.0012			
		1530.0	0.0028			
		1533.0	0.0595			
		1549.0	0.0015			
		1590.0	0.0029			
		1599.0	0.0179			
		1662.0	0.0013			
		1662.0	0.0056			
		1674.0	0.0173			
		1713.0	0.0021			
		1755.0	0.0036			
		1760.0	0.0036			
		1760.0	0.0063			
		1768.0	0.0015			
		1840.0	0.0017			
		1840.0	0.0123			
		2028.0	0.0011			
		2032.0	0.0708			
		2038.0	0.0022			
		2041.0	0.0215			
		2089.0	0.0081			
		2113.0	0.0015			
		2115.0	0.0046			
		2223.0	0.0017			
		1110.0	0.0405			
95Tc	20.0h	17.4	0.1908	2.089−4	2.540	1.180
		17.5	0.3655			
		19.6	0.1074			
		204.1	0.0031			
		604.0	0.0030			
		765.8	0.9382			
		785.9	0.0015			
		869.6	0.0032			
		947.7	0.0195			
		1074.0	0.0374			
		693.7	0.0015			
95mTc	61d	18.2	0.0020	1.939−4	2.129	1.407
		18.4	0.0039			
		20.6	0.0012			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		38.9	0.0000			
		17.4	0.1881			
		17.5	0.3603			
		19.6	0.1058			
		204.1	0.6192			
		253.0	0.0060			
		582.1	0.2933			
		616.5	0.0126			
		786.2	0.0848			
		820.6	0.0461			
		835.1	0.2607			
		1039.0	0.0272			
		883.1	0.0013			
		511.0	0.0103			
96Tc	4.3d	17.4	0.1882	4.894−4	3.015	0.994
		17.5	0.3605			
		19.6	0.1059			
		314.3	0.0243			
		316.5	0.0140			
		434.7	0.0075			
		460.0	0.0043			
		535.8	0.0041			
		568.9	0.0092			
		591.2	0.0011			
		719.6	0.0020			
		721.5	0.0012			
		778.2	0.9976			
		810.2	0.0021			
		812.5	0.8180			
		849.9	0.9776			
		1091.0	0.0110			
		1127.0	0.1516			
		1200.0	0.0037			
		650.9	0.0089			
96mTc	51.5m	18.2	0.0975	4.429−5	1.233	2.430
		18.4	0.1863			
		20.6	0.0559			
		34.4	0.0003			
		17.4	0.0039			
		17.5	0.0075			
		19.6	0.0022			
		480.7	0.0034			
		719.6	0.0030			
		778.2	0.0187			
		847.7	0.0012			
		849.9	0.0028			
		1200.0	0.0107			
		1498.0	0.0012			
		887.6	0.0056			
97Tc	2.6+6y	17.4	0.1886	7.596−5	0.003	1176.
		17.5	0.3612			
		19.6	0.1061			
97mTc	89d	18.2	0.1412	5.233−5	0.003	1060.
		18.4	0.2701			
		20.6	0.0810			
		96.5	0.0032			
98Tc	4.2+6y	19.1	0.0009	2.419−4	2.651	1.130
		19.3	0.0016			
		21.7	0.0005			
		652.4	0.9974			
		745.4	0.9982			
99Tc	2.1+5y	89.4	0.0000	1.24−10	0.142	21.144
99mTc	6.0h	18.2	0.0210	3.317−5	0.108	27.731
		18.4	0.0402			
		20.6	0.0121			
		140.5	0.8907			
		142.6	0.0002			
101Tc	14.2m	19.1	0.0043	6.905−5	1.026	2.920
		19.3	0.0081			
		21.7	0.0025			
		127.2	0.0282			
		179.6	0.0058			
		184.1	0.0162			
		233.7	0.0027			
		238.3	0.0031			
		306.8	0.8830			
		311.5	0.0014			
		393.3	0.0011			
		516.0	0.0011			
		531.5	0.0102			
		545.1	0.0600			
		627.0	0.0041			
		694.7	0.0115			
		715.5	0.0069			
		720.0	0.0019			
		842.8	0.0023			
		928.7	0.0013			
		617.8	0.0048			
97Ru	2.9d	18.2	0.2003	1.194−4	0.290	10.317
		18.4	0.3829			
		20.6	0.1149			
		108.8	0.0011			
		215.7	0.8550			
		324.5	0.1086			
		460.6	0.0012			
		569.3	0.0087			
		713.3	0.0031			

Nuclide	Half-life	E	Prob.	Γ	T	μ
103Ru	39.4d	20.1	0.0025	8.964−5	1.737	1.724
		20.2	0.0048			
		22.7	0.0015			
		53.3	0.0037			
		295.0	0.0025			
		443.8	0.0032			
		497.1	0.8890			
		557.0	0.0083			
		610.3	0.0560			
		486.9	0.0012			
105Ru	4.4h	20.1	0.0017	1.393−4	2.493	1.202
		20.2	0.0031			
		22.7	0.0010			
		85.9	0.0032			
		149.2	0.0167			
		163.6	0.0014			
		183.6	0.0010			
		225.0	0.0015			
		262.9	0.0720			
		316.5	0.1170			
		326.1	0.0118			
		330.9	0.0079			
		350.0	0.0030			
		350.2	0.0110			
		393.4	0.0420			
		407.5	0.0018			
		413.5	0.0248			
		469.4	0.1750			
		470.0	0.0130			
		489.6	0.0059			
		499.2	0.0240			
		500.4	0.0030			
		513.7	0.0036			
		539.2	0.0013			
		575.0	0.0013			
		575.3	0.0107			
		632.3	0.0023			
		638.6	0.0028			
		652.6	0.0035			
		656.0	0.0020			
		656.1	0.0240			
		676.4	0.1670			
		724.5	0.4900			
		822.1	0.0019			
		845.9	0.0073			
		875.8	0.0340			
		907.7	0.0059			
		969.4	0.0234			
		1017.0	0.0034			
		1321.0	0.0023			
		707.4	0.0128			
103mRh	56.1m	20.1	0.0220	6.912−6	0.003	864.0
		20.2	0.0418			
		22.7	0.0130			
		39.7	0.0007			
105Rh	1.5d	21.0	0.0010	1.588−5	0.759	3.949
		21.2	0.0019			
		23.8	0.0006			
		280.1	0.0017			
		306.1	0.0513			
		318.9	0.1920			
		294.9	0.0006			
105mRh	45s	20.1	0.1183	4.251−5	0.030	98.565
		20.2	0.2249			
		22.7	0.0700			
		129.6	0.2040			
106Rh	29.9s	511.8	0.2060	3.695−5	2.383	1.257
		616.2	0.0070			
		621.8	0.0981			
		873.6	0.0042			
		1050.0	0.0173			
		1128.0	0.0040			
		1562.0	0.0016			
		1357.0	0.0058			
103Pd	17.0d	20.1	0.1984	6.219−5	0.003	871.6
		20.2	0.3772			
		22.7	0.1174			
		359.6	0.0003			
109Pd	13.5h	508.6	0.0014	1.290−7	1.756	1.706
106mAg	8.5d	21.0	0.1996	5.214−4	3.160	0.948
		21.2	0.3788			
		23.8	0.1203			
		195.1	0.0031			
		221.7	0.0658			
		228.6	0.0210			
		328.5	0.0114			
		374.5	0.0026			
		391.0	0.0368			
		406.2	0.1342			
		418.6	0.0033			
		429.7	0.1316			
		451.0	0.2824			
		474.1	0.0093			
		511.8	0.8770			
		586.0	0.0044			
		601.2	0.0161			
		616.2	0.2157			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		646.0	0.0146			
		680.2	0.0218			
		703.1	0.0447			
		717.3	0.2894			
		748.4	0.2061			
		793.2	0.0588			
		804.3	0.1237			
		808.4	0.0403			
		824.7	0.1535			
		847.6	0.0246			
		848.2	0.0193			
		874.8	0.0033			
		949.5	0.0019			
		956.2	0.0047			
		1020.0	0.0104			
		1046.0	0.2955			
		1050.0	0.0026			
		1054.0	0.0096			
		1122.0	0.0057			
		1128.0	0.1175			
		1137.0	0.0023			
		1178.0	0.0019			
		1199.0	0.1123			
		1223.0	0.0702			
		1349.0	0.0012			
		1394.0	0.0149			
		1528.0	0.1631			
		1565.0	0.0048			
		1572.0	0.0658			
		1723.0	0.0140			
		1839.0	0.0202			
		1043.0	0.0063			
108Ag	2.4m	21.0	0.0043	4.376−6	1.938	1.546
		21.2	0.0081			
		23.8	0.0026			
		433.9	0.0051			
		618.9	0.0027			
		913.5	0.0003			
		511.0	0.0044			
		633.0	0.0174			
108mAg	127y	22.0	0.0051	3.424−4	2.152	1.392
		22.2	0.0097			
		24.9	0.0031			
		79.2	0.0709			
		30.4	0.0000			
		21.0	0.1822			
		21.2	0.3458			
		23.8	0.1098			
		433.9	0.8988			
		614.4	0.9039			
		722.9	0.9050			

Nuclide	Half-life	E	Prob.	Γ	T	μ
109mAg	39.6s	22.0	0.0988	2.722−5	0.005	548.6
		22.2	0.1870			
		24.9	0.0603			
		88.0	0.0372			
110Ag	24.6s	21.0	0.0006	5.527−6	2.475	1.210
		21.2	0.0011			
		23.8	0.0004			
		657.8	0.0449			
		1046.0	0.0010			
110mAg	249.9d	22.0	0.0020	4.452−4	3.422	0.875
		22.2	0.0037			
		24.9	0.0012			
		98.9	0.0001			
		23.0	0.0006			
		23.2	0.0012			
		26.1	0.0004			
		365.4	0.0011			
		446.8	0.0364			
		620.4	0.0277			
		626.3	0.0023			
		657.8	0.9439			
		676.6	0.0014			
		677.6	0.1068			
		687.0	0.0647			
		706.7	0.1668			
		708.1	0.0028			
		744.3	0.0464			
		763.9	0.2228			
		818.0	0.0728			
		884.7	0.7258			
		937.5	0.3419			
		997.2	0.0012			
		1334.0	0.0013			
		1384.0	0.2426			
		1476.0	0.0400			
		1505.0	0.1306			
		1562.0	0.0118			
111Ag	7.5d	23.0	0.0002	5.328−6	0.871	3.441
		23.2	0.0005			
		26.1	0.0002			
		96.8	0.0012			
		245.4	0.0123			
		342.1	0.0668			
		654.7	0.0006			
109Cd	464d	22.0	0.1861	4.983−5	0.004	683.6
		22.2	0.3526			
		24.9	0.1137			

Nuclide	Half-life	E	Prob.	Γ	T	μ
111mCd	48.7m	23.0	0.1170	8.463−5	0.352	8.502
		23.2	0.2208			
		26.1	0.0723			
		150.8	0.3090			
		245.4	0.9400			
115Cd	2.2d	24.0	0.0100	4.028−5	1.750	1.712
		24.2	0.0189			
		27.3	0.0063			
		35.5	0.0045			
		231.4	0.0078			
		260.9	0.0206			
		492.3	0.0851			
		527.9	0.2915			
		296.9	0.0011			
115mCd	44.6d	484.5	0.0019	3.430−6	3.848	0.779
		933.8	0.0133			
		1291.0	0.0059			
		932.7	0.0010			
117Cd	2.5h	24.0	0.0155	1.735−4	4.083	0.734
		24.2	0.0292			
		27.3	0.0097			
		71.1	0.0039			
		89.7	0.0326			
		160.8	0.0025			
		220.9	0.0117			
		273.4	0.2790			
		279.8	0.0011			
		292.1	0.0064			
		344.5	0.1788			
		388.0	0.0031			
		397.2	0.0020			
		419.8	0.0018			
		434.2	0.0979			
		439.4	0.0011			
		463.0	0.0075			
		497.8	0.0011			
		527.0	0.0014			
		627.0	0.0011			
		660.8	0.0011			
		699.6	0.0024			
		712.7	0.0056			
		716.4	0.0020			
		728.6	0.0024			
		748.1	0.0056			
		831.8	0.0226			
		840.2	0.0081			
		850.7	0.0012			
		861.3	0.0028			
		862.6	0.0061			
		880.7	0.0396			
		945.7	0.0153			
		949.6	0.0022			
		952.3	0.0014			
		963.1	0.0061			
		969.3	0.0045			
		1036.0	0.0024			
		1052.0	0.0379			
		1053.0	0.0073			
		1117.0	0.0103			
		1120.0	0.0024			
		1125.0	0.0045			
		1142.0	0.0167			
		1144.0	0.0014			
		1183.0	0.0013			
		1229.0	0.0061			
		1232.0	0.0028			
		1248.0	0.0120			
		1260.0	0.0114			
		1273.0	0.0073			
		1291.0	0.0067			
		1294.0	0.0045			
		1303.0	0.1836			
		1315.0	0.0059			
		1338.0	0.0162			
		1362.0	0.0024			
		1404.0	0.0012			
		1409.0	0.0128			
		1422.0	0.0033			
		1431.0	0.0098			
		1434.0	0.0011			
		1450.0	0.0061			
		1476.0	0.0042			
		1562.0	0.0142			
		1577.0	0.1119			
		1578.0	0.0014			
		1652.0	0.0028			
		1682.0	0.0070			
		1707.0	0.0100			
		1723.0	0.0201			
		1739.0	0.0013			
		1856.0	0.0025			
		1867.0	0.0011			
		2012.0	0.0011			
		959.7	0.0212			
117mCd	3.4h	24.0	0.0023	2.909−4	4.831	0.620
		24.2	0.0043			
		27.3	0.0014			
		97.7	0.0105			
		99.4	0.0010			
		168.6	0.0029			
		220.9	0.0024			
		273.4	0.0029			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		292.1	0.0010			
		299.4	0.0045			
		310.3	0.0050			
		325.3	0.0013			
		344.5	0.0026			
		366.9	0.0333			
		439.4	0.0018			
		460.9	0.0162			
		484.8	0.0102			
		545.0	0.0016			
		564.4	0.1467			
		597.3	0.0013			
		617.5	0.0034			
		627.3	0.0024			
		631.8	0.0280			
		663.5	0.0068			
		712.7	0.0100			
		730.8	0.0010			
		748.1	0.0445			
		762.7	0.0173			
		788.2	0.0050			
		827.6	0.0026			
		860.4	0.0789			
		880.7	0.0071			
		886.0	0.0039			
		929.3	0.0079			
		931.4	0.0364			
		957.2	0.0039			
		1029.0	0.1166			
		1066.0	0.2306			
		1171.0	0.0065			
		1196.0	0.0039			
		1205.0	0.0013			
		1209.0	0.0013			
		1209.0	0.0018			
		1235.0	0.1100			
		1257.0	0.0018			
		1339.0	0.0207			
		1366.0	0.0165			
		1433.0	0.1344			
		1652.0	0.0047			
		1670.0	0.0063			
		1958.0	0.0016			
		1997.0	0.2620			
		2096.0	0.0744			
		2323.0	0.0786			
		2401.0	0.0076			
		2417.0	0.0102			
		2462.0	0.0021			
		2476.0	0.0019			
		2541.0	0.0015			
		865.4	0.0071			
111In	2.8d	23.0	0.2363	1.356−4	0.290	10.321
		23.2	0.4458			
		26.1	0.1460			
		171.3	0.9024			
		245.4	0.9400			
		150.8	0.0000			
113mIn	1.7h	24.0	0.0683	6.567−5	1.048	2.858
		24.2	0.1287			
		27.3	0.0427			
		391.7	0.6490			
114In	1.2m	23.0	0.0019	6.168−6	2.207	1.358
		23.2	0.0037			
		26.1	0.0012			
		575.8	0.0506			
		558.4	0.0001			
		1300.0	0.0020			
114mIn	49.5d	24.0	0.0967	4.066−5	1.289	2.324
		24.2	0.1821			
		27.3	0.0605			
		190.3	0.1595			
		23.0	0.0091			
		23.2	0.0173			
		26.1	0.0056			
		558.4	0.0448			
		725.2	0.0449			
115mIn	4.4h	24.0	0.0949	5.329−5	0.710	4.220
		24.2	0.1788			
		27.3	0.0594			
		336.3	0.4671			
		497.4	0.0005			
116mIn	54.1m	25.0	0.0028	3.646−4	4.442	0.674
		25.3	0.0053			
		28.5	0.0018			
		138.3	0.0330			
		263.0	0.0014			
		303.8	0.0012			
		355.4	0.0085			
		417.0	0.2780			
		463.3	0.0085			
		689.0	0.0019			
		705.7	0.0019			
		779.5	0.0027			
		781.1	0.0011			
		818.7	0.1158			
		972.5	0.0046			
		1097.0	0.5535			
		1293.0	0.8450			
		1508.0	0.0989			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1752.0	0.0239			
		2112.0	0.1538			
		707.4	0.0134			
117In	43.8m	25.0	0.0296	1.347-4	1.779	1.684
		25.3	0.0556			
		28.5	0.0187			
		158.6	0.8639			
		396.6	0.0014			
		553.0	0.9930			
117mIn	1.9h	24.0	0.0526	3.060-5	0.534	5.608
		24.2	0.0990			
		27.3	0.0329			
		315.3	0.1945			
		25.0	0.0052			
		25.3	0.0098			
		28.5	0.0033			
		158.6	0.1587			
		918.6	0.0003			
113Sn	115.1d	24.0	0.2069	4.844-5	0.006	462.8
		24.2	0.3896			
		27.3	0.1294			
		255.1	0.0193			
		638.1	0.0000			
117mSn	13.6d	25.0	0.1873	6.796-5	0.113	26.595
		25.3	0.3514			
		28.5	0.1185			
		156.0	0.0211			
		158.6	0.8640			
119mSn	293.0d	23.9	0.1610	2.789-5	0.006	517.0
		25.0	0.0788			
		25.3	0.1479			
		28.5	0.0499			
		65.7	0.0002			
123Sn	129.2d	1089.0	0.0060	1.061-6	4.025	0.744
		992.9	0.0004			
125Sn	9.6d	331.9	0.0129	4.662-5	4.069	0.736
		350.9	0.0022			
		469.7	0.0129			
		800.5	0.0095			
		822.6	0.0378			
		893.7	0.0023			
		915.5	0.0378			
		934.7	0.0015			
		1017.0	0.0026			
		1067.0	0.0860			
		1087.0	0.0095			
		1089.0	0.0404			
		1151.0	0.0010			
		1173.0	0.0019			
		1221.0	0.0022			
		1420.0	0.0046			
		1806.0	0.0015			
		2002.0	0.0206			
		2275.0	0.0018			
		833.2	0.0070			
126Sn	1.0+5y	21.6	0.0124	3.408-5	0.095	31.647
		23.3	0.0640			
		26.1	0.0833			
		26.4	0.1561			
		29.7	0.0534			
		42.6	0.0050			
		64.3	0.0958			
		86.9	0.0892			
		87.6	0.3700			
		22.7	0.0010			
117Sb	2.8h	25.0	0.2350	8.214-5	0.210	14.263
		25.3	0.4409			
		28.5	0.1487			
		158.6	0.8610			
		861.3	0.0031			
		1005.0	0.0021			
		1021.0	0.0010			
		1021.0	0.0011			
		1037.0	0.0026			
		511.0	0.0340			
122Sb	2.7d	25.0	0.0050	8.140-5	2.141	1.399
		25.3	0.0094			
		28.5	0.0032			
		1140.0	0.0077			
		27.2	0.0009			
		27.5	0.0016			
		31.0	0.0006			
		563.9	0.7065			
		692.8	0.0374			
		1257.0	0.0078			
		1179.0	0.0002			
124Sb	60.2d	27.2	0.0010	2.859-4	4.195	0.714
		27.5	0.0019			
		31.0	0.0007			
		400.0	0.0013			
		444.0	0.0021			
		525.5	0.0017			
		602.7	0.9787			
		632.4	0.0015			
		645.9	0.0726			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		709.3	0.0142			
		713.8	0.0238			
		722.8	0.1110			
		735.7	0.0013			
		790.7	0.0074			
		968.2	0.0192			
		1045.0	0.0186			
		1325.0	0.0150			
		1355.0	0.0100			
		1368.0	0.0251			
		1376.0	0.0044			
		1437.0	0.0114			
		1445.0	0.0022			
		1489.0	0.0063			
		1526.0	0.0040			
		1580.0	0.0020			
		1691.0	0.4903			
		2091.0	0.0573			
		1208.0	0.0134			
125Sb	2.8y	27.2	0.1279	1.025-4	1.696	1.767
		27.5	0.2386			
		31.0	0.0828			
		35.5	0.0417			
		116.9	0.0026			
		172.6	0.0018			
		176.3	0.0689			
		204.1	0.0032			
		208.1	0.0024			
		227.9	0.0013			
		321.0	0.0042			
		380.4	0.0150			
		408.0	0.0018			
		427.9	0.2933			
		443.5	0.0030			
		463.4	0.1035			
		600.6	0.1777			
		606.6	0.0502			
		635.9	0.1132			
		671.4	0.0181			
		159.0	0.0007			
126Sb	12.4d	27.2	0.0044	4.841-4	2.556	1.172
		27.5	0.0081			
		31.0	0.0028			
		149.3	0.0040			
		208.6	0.0050			
		223.8	0.0140			
		278.6	0.0239			
		296.5	0.0448			
		297.1	0.0050			
		414.7	0.8328			
		415.3	0.0100			
		555.2	0.0169			
		573.8	0.0667			
		593.0	0.0747			
		620.2	0.0090			
		639.7	0.0090			
		656.3	0.0219			
		666.3	0.9962			
		675.0	0.0369			
		695.0	0.9962			
		697.0	0.2889			
		720.5	0.5379			
		856.8	0.1763			
		954.0	0.0119			
		959.6	0.0050			
		989.3	0.0677			
		1035.0	0.0100			
		1061.0	0.0020			
		1064.0	0.0090			
		1213.0	0.0239			
		1476.0	0.0028			
126mSb	19.0m	17.7	0.0000	2.814-4	2.366	1.266
		27.2	0.0039			
		27.5	0.0072			
		31.0	0.0025			
		414.7	0.8567			
		620.0	0.0154			
		666.3	0.8567			
		695.0	0.8567			
		928.2	0.0128			
		1035.0	0.0180			
		1061.0	0.0051			
		1476.0	0.0034			
127Sb	3.9d	27.2	0.0106	1.196-4	2.386	1.256
		27.5	0.0197			
		31.0	0.0068			
		61.1	0.0142			
		154.3	0.0011			
		252.4	0.0839			
		280.4	0.0054			
		290.8	0.0182			
		293.3	0.0029			
		310.0	0.0020			
		391.8	0.0093			
		405.0	0.0011			
		411.6	0.0343			
		440.7	0.0025			
		444.9	0.0421			
		451.0	0.0018			
		456.0	0.0011			
		473.0	0.2503			
		502.8	0.0061			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		543.0	0.0264			
		584.2	0.0032			
		603.6	0.0425			
		637.8	0.0036			
		653.5	0.0025			
		666.9	0.0054			
		682.3	0.0054			
		685.2	0.3570			
		698.5	0.0339			
		722.2	0.0175			
		745.9	0.0011			
		783.8	0.1467			
		817.3	0.0027			
		820.1	0.0011			
		923.5	0.0046			
		1141.0	0.0036			
		1290.0	0.0035			
		736.7	0.0053			
129Sb	4.4h	27.2	0.0009	2.307-4	3.566	0.840
		27.5	0.0018			
		31.0	0.0006			
		96.1	0.0018			
		116.2	0.0018			
		146.6	0.0023			
		180.8	0.0270			
		244.7	0.0055			
		268.6	0.0027			
		295.5	0.0110			
		313.5	0.0091			
		332.5	0.0023			
		359.4	0.0302			
		363.0	0.0046			
		405.0	0.0146			
		453.5	0.0082			
		499.6	0.0023			
		523.8	0.0169			
		544.7	0.1906			
		633.7	0.0293			
		654.3	0.0320			
		669.8	0.0087			
		683.6	0.0073			
		683.6	0.0544			
		737.1	0.0041			
		761.0	0.0402			
		773.4	0.0293			
		786.6	0.0201			
		812.8	0.4570			
		876.2	0.0274			
		914.6	0.2130			
		939.7	0.0078			
		966.4	0.0818			
		995.4	0.0014			
		1030.0	0.1339			
		1084.0	0.0055			
		1104.0	0.0023			
		1125.0	0.0011			
		1139.0	0.0018			
		1162.0	0.0011			
		1168.0	0.0027			
		1208.0	0.0096			
		1223.0	0.0018			
		1237.0	0.0027			
		1257.0	0.0037			
		1261.0	0.0078			
		1273.0	0.0027			
		1281.0	0.0059			
		1300.0	0.0027			
		1317.0	0.0037			
		1326.0	0.0055			
		1419.0	0.0055			
		1436.0	0.0032			
		1480.0	0.0050			
		1526.0	0.0046			
		1540.0	0.0014			
		1569.0	0.0073			
		1599.0	0.0055			
		1621.0	0.0027			
		1655.0	0.0105			
		1724.0	0.0027			
		1736.0	0.0635			
		1842.0	0.0023			
		1870.0	0.0032			
		2070.0	0.0059			
		2113.0	0.0037			
		1311.0	0.0098			
121Te	16.8d	26.1	0.2144	1.444-4	1.778	1.685
		26.4	0.4016			
		29.7	0.1374			
		37.1	0.0012			
		65.6	0.0026			
		470.5	0.0140			
		507.6	0.1767			
		573.1	0.8030			
121mTe	154d	27.2	0.1011	6.703-5	0.518	5.781
		27.5	0.1886			
		31.0	0.0655			
		212.2	0.8147			
		81.8	0.0005			
		26.1	0.0459			
		26.4	0.0859			
		29.7	0.0294			
		37.1	0.0094			
		1102.0	0.0254			
		953.6	0.0016			

Nuclide	Half-life	E	Prob.	Γ	T	μ
123Te	1.0+13y	26.1	0.1357	2.687−5	0.007	429.8
		26.4	0.2542			
		29.7	0.0870			
123mTe	119.7d	27.2	0.1405	5.261−5	0.125	24.041
		27.5	0.2620			
		31.0	0.0910			
		159.0	0.8410			
		89.1	0.0009			
125mTe	58d	27.2	0.3232	6.168−5	0.008	368.9
		27.5	0.6030			
		31.0	0.2093			
		35.5	0.0649			
		109.3	0.0028			
		144.8	0.0000			
127Te	9.4h	360.3	0.0013	9.428−7	1.239	2.419
		417.9	0.0099			
		172.7	0.0013			
127mTe	109d	27.2	0.1041	1.977−5	0.008	373.5
		27.5	0.1943			
		31.0	0.0674			
		88.3	0.0009			
		28.3	0.0030			
		28.6	0.0057			
		32.3	0.0020			
		57.6	0.0038			
		648.6	0.0001			
129Te	1.2h	27.8	0.1626	1.833−5	1.452	2.063
		209.0	0.0017			
		250.6	0.0035			
		278.4	0.0052			
		281.3	0.0015			
		459.6	0.0710			
		487.4	0.0131			
		802.1	0.0018			
		1084.0	0.0045			
		1112.0	0.0018			
		656.9	0.0038			
129mTe	33.6d	27.2	0.0788	1.994−5	1.496	2.003
		27.5	0.1470			
		31.0	0.0510			
		105.5	0.0015			
		556.6	0.0013			
		695.9	0.0327			
		729.6	0.0076			
		742.5	0.0031			
131Te	25.0m	28.3	0.0368	8.065−5	2.491	1.203
		28.6	0.0685			
		32.3	0.0240			
		149.7	0.6890			
		151.1	0.0017			
		342.9	0.0070			
		384.1	0.0090			
		452.3	0.1822			
		492.7	0.0484			
		544.9	0.0043			
		567.3	0.0010			
		602.0	0.0420			
		605.5	0.0012			
		654.3	0.0153			
		696.2	0.0018			
		727.0	0.0047			
		842.0	0.0020			
		856.1	0.0013			
		898.5	0.0014			
		934.5	0.0087			
		948.5	0.0226			
		951.4	0.0033			
		997.3	0.0334			
		1008.0	0.0080			
		1098.0	0.0017			
		1147.0	0.0496			
		1149.0	0.0011			
		1277.0	0.0012			
		1294.0	0.0048			
		1427.0	0.0011			
		1501.0	0.0012			
		696.0	0.0119			
131mTe	1.2d	27.2	0.0359	2.447−4	3.344	0.896
		27.5	0.0669			
		31.0	0.0232			
		182.3	0.0085			
		28.3	0.0283			
		28.6	0.0527			
		32.3	0.0185			
		79.2	0.0013			
		81.1	0.0407			
		86.4	0.0015			
		101.6	0.0017			
		102.1	0.0794			
		134.9	0.0071			
		149.7	0.0508			
		159.7	0.0013			
		182.3	0.0074			
		183.1	0.0015			
		188.1	0.0021			
		189.8	0.0050			
		190.5	0.0012			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		200.6	0.0755			
		214.0	0.0043			
		230.7	0.0019			
		240.9	0.0759			
		253.2	0.0065			
		255.4	0.0031			
		269.2	0.0011			
		278.6	0.0178			
		283.2	0.0039			
		309.5	0.0038			
		334.3	0.0957			
		335.4	0.0014			
		342.9	0.0039			
		351.3	0.0021			
		354.7	0.0023			
		365.0	0.0120			
		383.9	0.0020			
		417.4	0.0028			
		432.4	0.0066			
		452.3	0.0155			
		462.9	0.0182			
		468.2	0.0031			
		492.7	0.0023			
		524.8	0.0014			
		530.7	0.0010			
		541.4	0.0011			
		586.3	0.0198			
		602.0	0.0031			
		609.4	0.0014			
		665.1	0.0434			
		685.9	0.0015			
		695.6	0.0040			
		702.5	0.0039			
		713.1	0.0143			
		744.2	0.0159			
		773.7	0.3820			
		774.1	0.0054			
		782.5	0.0779			
		793.7	0.1387			
		822.8	0.0612			
		844.9	0.0015			
		852.2	0.0039			
		852.2	0.2065			
		856.1	0.0062			
		865.1	0.0019			
		872.3	0.0010			
		910.0	0.0329			
		920.6	0.0120			
		923.4	0.0012			
		941.3	0.0078			
		987.8	0.0015			
		999.3	0.0017			
		1035.0	0.0010			
		1060.0	0.0155			
		1125.0	0.1143			
		1128.0	0.0097			
		1149.0	0.0151			
		1149.0	0.0038			
		1151.0	0.0066			
		1165.0	0.0014			
		1207.0	0.0976			
		1237.0	0.0066			
		1315.0	0.0070			
		1341.0	0.0010			
		1395.0	0.0011			
		1646.0	0.0124			
		1888.0	0.0136			
		2001.0	0.0202			
		2168.0	0.0035			
		2271.0	0.0038			
		631.9	0.0355			
132Te	3.3d	28.3	0.1831	7.549−5	0.296	10.115
		28.6	0.3409			
		32.3	0.1195			
		49.7	0.1311			
		111.8	0.0185			
		116.3	0.0194			
		228.2	0.8800			
133Te	**12.4m**	**28.3**	**0.0063**	**1.580−4**	**3.333**	**0.899**
		28.6	0.0117			
		32.3	0.0041			
		312.0	0.7080			
		384.6	0.0028			
		392.9	0.0057			
		407.6	0.3009			
		474.7	0.0120			
		546.4	0.0057			
		587.1	0.0050			
		613.6	0.0028			
		719.6	0.0665			
		786.8	0.0559			
		844.4	0.0326			
		930.7	0.0446			
		1001.0	0.0623			
		1021.0	0.0269			
		1062.0	0.0127			
		1252.0	0.0113			
		1308.0	0.0092			
		1314.0	0.0078			
		1333.0	0.0991			
		1406.0	0.0057			
		1474.0	0.0035			
		1519.0	0.0050			
		1588.0	0.0028			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1718.0	0.0340			
		1825.0	0.0057			
		1882.0	0.0142			
		2137.0	0.0028			
		2228.0	0.0028			
		2541.0	0.0007			
133mTe	**55.4m**	**27.2**	**0.0146**	**3.680-4**	**3.516**	**0.852**
		27.5	0.0272			
		31.0	0.0094			
		334.1	0.0543			
		28.3	0.0357			
		28.6	0.0665			
		32.3	0.0233			
		74.1	0.0131			
		81.5	0.0070			
		88.0	0.0209			
		94.9	0.0870			
		164.3	0.0235			
		168.9	0.1148			
		177.1	0.0148			
		178.2	0.0087			
		184.4	0.0035			
		193.2	0.0061			
		198.2	0.0052			
		213.4	0.0287			
		220.9	0.0043			
		224.0	0.0035			
		244.3	0.0061			
		251.5	0.0052			
		257.6	0.0087			
		261.6	0.1566			
		285.7	0.0087			
		344.5	0.0226			
		347.2	0.0113			
		355.6	0.0148			
		362.8	0.0096			
		376.8	0.0052			
		397.0	0.0148			
		429.0	0.0122			
		435.4	0.0104			
		444.9	0.0226			
		462.1	0.0200			
		471.8	0.0200			
		478.6	0.0157			
		519.6	0.0043			
		534.9	0.0174			
		574.0	0.0235			
		622.0	0.0139			
		647.4	0.2932			
		702.8	0.0374			
		731.7	0.0148			
		733.9	0.0287			
		779.7	0.0339			
		795.7	0.0131			
		800.5	0.0191			
		863.9	0.1949			
		882.8	0.0566			
		897.7	0.0043			
		912.6	0.8700			
		914.7	0.1653			
		934.4	0.0131			
		978.2	0.0948			
		980.4	0.0235			
		982.9	0.0113			
		1007.0	0.0104			
		1030.0	0.0131			
		1349.0	0.0252			
		1459.0	0.0218			
		1516.0	0.0096			
		1532.0	0.0087			
		1683.0	0.0574			
		1704.0	0.0096			
		1886.0	0.0113			
		2005.0	0.0331			
		2028.0	0.0209			
		2049.0	0.0104			
134Te	**41.8m**	**28.3**	**0.0877**	**1.727-4**	**2.194**	**1.366**
		28.6	0.1632			
		32.3	0.0572			
		76.8	0.0028			
		79.4	0.2100			
		101.4	0.0033			
		131.0	0.0018			
		180.9	0.1800			
		183.0	0.0060			
		201.2	0.0870			
		210.5	0.2190			
		259.8	0.0048			
		277.9	0.2130			
		435.1	0.1860			
		461.0	0.1080			
		464.6	0.0510			
		566.0	0.1890			
		636.3	0.0171			
		645.4	0.0090			
		665.8	0.0120			
		713.0	0.0420			
		742.6	0.1470			
		767.2	0.3000			
		844.1	0.0120			
		896.0	0.0045			
		925.5	0.0165			
		1027.0	0.0045			
		110.1	0.0012			

Nuclide	Half-life	E	Prob.	Γ	T	μ
122I	**3.6m**	**27.2**	**0.0520**	**1.876–4**	**1.926**	**1.555**
		27.5	0.0970			
		31.0	0.0337			
		563.9	0.2100			
		683.5	0.0097			
		692.8	0.0149			
		793.2	0.0166			
		1075.0	0.0034			
		1257.0	0.0032			
		1500.0	0.0018			
		1747.0	0.0038			
		1844.0	0.0016			
		2193.0	0.0036			
		1862.0	0.0081			
		511.0	1.5210			
123I	**13.1h**	**27.2**	**0.2463**	**7.475–5**	**0.154**	**19.422**
		27.5	0.4595			
		31.0	0.1595			
		159.0	0.8340			
		346.4	0.0013			
		440.0	0.0043			
		505.3	0.0032			
		529.0	0.0139			
		538.5	0.0038			
		494.4	0.0048			
124I	**4.2d**	**27.2**	**0.1650**	**2.033–4**	**3.093**	**0.969**
		27.5	0.3078			
		31.0	0.1068			
		541.2	0.0018			
		554.0	0.0010			
		602.7	0.5900			
		645.9	0.0092			
		695.0	0.0018			
		713.8	0.0011			
		722.8	0.0974			
		968.2	0.0040			
		976.3	0.0010			
		1045.0	0.0041			
		1054.0	0.0012			
		1325.0	0.0140			
		1368.0	0.0028			
		1376.0	0.0162			
		1489.0	0.0018			
		1509.0	0.0292			
		1560.0	0.0016			
		1638.0	0.0019			
		1676.0	0.0011			
		1691.0	0.1015			
		1720.0	0.0017			
		1851.0	0.0020			
		1919.0	0.0017			
		2038.0	0.0033			
		2079.0	0.0034			
		2091.0	0.0055			
		2099.0	0.0014			
		2144.0	0.0011			
		2232.0	0.0055			
		2283.0	0.0064			
		2747.0	0.0045			
		1175.0	0.0121			
		511.0	0.4654			
125I	60.1d	27.2	0.3923	7.432–5	0.008	373.1
		27.5	0.7320			
		31.0	0.2541			
		35.5	0.0649			
126I	**12.9d**	**27.2**	**0.1269**	**1.052–4**	**2.061**	**1.454**
		27.5	0.2368			
		31.0	0.0822			
		666.3	0.4020			
		753.8	0.0506			
		1420.0	0.0036			
		1781.0	0.0001			
		511.0	0.0215			
		29.5	0.0011			
		29.8	0.0021			
		33.6	0.0008			
		388.6	0.2908			
		491.2	0.0243			
		879.9	0.0064			
128I	**25.0m**	**27.2**	**0.0106**	**1.614–5**	**1.506**	**1.989**
		27.5	0.0198			
		31.0	0.0069			
		743.2	0.0013			
		29.5	0.0004			
		29.8	0.0007			
		33.6	0.0003			
		442.9	0.1425			
		526.6	0.0137			
		969.4	0.0034			
		1051.0	0.0001			
129I	1.6+7y	29.5	0.1996	3.401–5	0.010	287.0
		29.8	0.3702			
		33.6	0.1316			
		39.6	0.0752			
130I	**12.4h**	**29.5**	**0.0042**	**3.768–4**	**2.525**	**1.186**
		29.8	0.0078			
		33.6	0.0028			
		418.0	0.3415			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		457.7	0.0024			
		510.3	0.0085			
		536.1	0.9900			
		539.1	0.0140			
		553.9	0.0066			
		586.0	0.0169			
		603.5	0.0061			
		668.5	0.9613			
		686.0	0.0107			
		739.5	0.8227			
		800.2	0.0010			
		808.3	0.0024			
		877.3	0.0019			
		967.0	0.0088			
		1097.0	0.0055			
		1122.0	0.0025			
		1158.0	0.1131			
		1223.0	0.0018			
		1272.0	0.0075			
		1404.0	0.0034			
		809.9	0.0085			
131I	8.0d	29.5	0.0135	7.640−5	1.242	2.412
		29.8	0.0250			
		33.6	0.0089			
		80.2	0.0262			
		177.2	0.0026			
		284.3	0.0605			
		325.8	0.0025			
		364.5	0.8116			
		503.0	0.0036			
		637.0	0.0726			
		642.7	0.0022			
		722.9	0.0180			
		329.4	0.0023			
132I	2.3h	29.5	0.0017	3.841−4	3.081	0.972
		29.8	0.0032			
		33.6	0.0011			
		147.2	0.0024			
		183.3	0.0014			
		254.8	0.0019			
		262.7	0.0144			
		284.8	0.0072			
		316.5	0.0014			
		363.5	0.0049			
		387.8	0.0030			
		416.8	0.0047			
		431.9	0.0048			
		446.0	0.0060			
		473.9	0.0018			
		478.5	0.0015			
		488.2	0.0041			
		505.9	0.0503			
		522.7	0.1609			
		535.5	0.0052			
		540.0	0.0011			
		547.1	0.0125			
		600.0	0.0014			
		620.8	0.0039			
		621.2	0.0158			
		630.2	0.1372			
		650.6	0.0267			
		659.0	0.0039			
		667.7	0.9870			
		669.8	0.0494			
		671.6	0.0523			
		727.0	0.0316			
		727.2	0.0217			
		728.5	0.0109			
		764.5	0.0039			
		772.6	0.7620			
		780.2	0.0123			
		784.5	0.0042			
		809.8	0.0286			
		812.2	0.0563			
		863.3	0.0058			
		876.8	0.0108			
		910.3	0.0092			
		927.6	0.0041			
		954.6	0.1806			
		983.7	0.0056			
		1035.0	0.0047			
		1136.0	0.0296			
		1143.0	0.0135			
		1147.0	0.0028			
		1173.0	0.0109			
		1273.0	0.0018			
		1291.0	0.0114			
		1295.0	0.0197			
		1298.0	0.0089			
		1318.0	0.0012			
		1372.0	0.0247			
		1399.0	0.0711			
		1443.0	0.0142			
		1477.0	0.0014			
		1757.0	0.0030			
		1921.0	0.0118			
		2002.0	0.0109			
		2087.0	0.0024			
		2173.0	0.0020			
		2223.0	0.0012			
		2391.0	0.0017			
		1015.0	0.0320			
133I	20.8h	29.5	0.0015	1.092−4	2.273	1.318

Nuclide	Half-life	E	Prob.	Γ	T	μ
		29.8	0.0028			
		33.6	0.0010			
		262.7	0.0036			
		267.2	0.0012			
		345.4	0.0010			
		361.1	0.0011			
		418.0	0.0015			
		422.9	0.0031			
		510.5	0.0181			
		529.9	0.8632			
		618.0	0.0054			
		680.2	0.0064			
		706.6	0.0149			
		768.4	0.0046			
		820.5	0.0015			
		856.3	0.0123			
		875.3	0.0447			
		909.7	0.0021			
		1052.0	0.0055			
		1060.0	0.0014			
		1236.0	0.0149			
		1298.0	0.0233			
		1350.0	0.0015			
		535.2	0.0061			
134I	52.6m	29.5	0.0043	4.240−4	3.545	0.845
		29.8	0.0080			
		33.6	0.0029			
		135.4	0.0376			
		139.0	0.0069			
		152.0	0.0011			
		162.5	0.0026			
		188.5	0.0070			
		217.0	0.0025			
		235.5	0.0198			
		278.8	0.0013			
		319.8	0.0052			
		351.1	0.0050			
		405.4	0.0735			
		411.0	0.0061			
		433.4	0.0419			
		458.9	0.0130			
		465.5	0.0036			
		488.9	0.0141			
		514.4	0.0234			
		540.8	0.0782			
		565.5	0.0088			
		570.7	0.0021			
		595.4	0.1135			
		621.8	0.1059			
		628.0	0.0237			
		677.3	0.0849			
		706.7	0.0083			
		730.7	0.0191			
		739.2	0.0076			
		766.7	0.0410			
		816.4	0.0052			
		847.0	0.9541			
		857.3	0.0696			
		864.0	0.0019			
		884.1	0.6526			
		922.6	0.0014			
		947.9	0.0404			
		966.9	0.0035			
		974.7	0.0468			
		1040.0	0.0191			
		1073.0	0.1527			
		1100.0	0.0069			
		1103.0	0.0073			
		1136.0	0.0973			
		1159.0	0.0035			
		1164.0	0.0013			
		1190.0	0.0035			
		1239.0	0.0021			
		1269.0	0.0056			
		1322.0	0.0010			
		1336.0	0.0014			
		1353.0	0.0045			
		1414.0	0.0022			
		1428.0	0.0017			
		1431.0	0.0017			
		1455.0	0.0229			
		1470.0	0.0077			
		1505.0	0.0011			
		1542.0	0.0051			
		1614.0	0.0436			
		1629.0	0.0026			
		1644.0	0.0040			
		1655.0	0.0023			
		1741.0	0.0267			
		1807.0	0.0573			
		1926.0	0.0018			
		2021.0	0.0017			
		2160.0	0.0021			
		2312.0	0.0024			
		2467.0	0.0015			
		1787.0	0.0134			
135I	6.6h	29.5	0.0007	2.317−4	4.511	0.664
		29.8	0.0013			
		33.6	0.0005			
		220.5	0.0175			
		229.7	0.0023			
		264.3	0.0018			
		288.5	0.0309			
		290.3	0.0030			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		361.9	0.0019			
		403.0	0.0023			
		414.8	0.0030			
		417.6	0.0352			
		429.9	0.0030			
		433.7	0.0055			
		451.6	0.0031			
		546.6	0.0712			
		576.0	0.0013			
		649.9	0.0045			
		690.1	0.0013			
		707.9	0.0066			
		785.5	0.0015			
		797.7	0.0017			
		836.8	0.0667			
		961.5	0.0015			
		972.0	0.0089			
		972.6	0.0120			
		995.1	0.0015			
		1039.0	0.0792			
		1102.0	0.0160			
		1124.0	0.0360			
		1132.0	0.2252			
		1160.0	0.0010			
		1169.0	0.0087			
		1241.0	0.0090			
		1260.0	0.2861			
		1368.0	0.0061			
		1448.0	0.0031			
		1458.0	0.0864			
		1503.0	0.0107			
		1566.0	0.0129			
		1678.0	0.0953			
		1707.0	0.0409			
		1791.0	0.0770			
		1831.0	0.0058			
		1927.0	0.0029			
		2046.0	0.0087			
		2255.0	0.0061			
		2409.0	0.0095			
		1073.0	0.0149			
1361	1.4m	219.3	0.0085	3.370−4	5.164	0.580
		240.5	0.0024			
		270.2	0.0022			
		309.1	0.0035			
		344.7	0.0250			
		362.5	0.0013			
		381.4	0.0086			
		396.0	0.0044			
		431.4	0.0021			
		434.2	0.0083			
		597.8	0.0037			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		682.7	0.0019			
		812.6	0.0090			
		865.5	0.0067			
		976.5	0.0278			
		994.2	0.0168			
		1057.0	0.0030			
		1101.0	0.0050			
		1179.0	0.0023			
		1223.0	0.0016			
		1247.0	0.0236			
		1313.0	0.6940			
		1321.0	0.2582			
		1400.0	0.0011			
		1536.0	0.0135			
		1556.0	0.0049			
		1583.0	0.0026			
		1625.0	0.0024			
		1635.0	0.0039			
		1640.0	0.0019			
		1666.0	0.0018			
		1686.0	0.0032			
		1689.0	0.0027			
		1709.0	0.0072			
		1738.0	0.0017			
		1820.0	0.0022			
		1962.0	0.0237			
		1968.0	0.0017			
		1980.0	0.0014			
		2039.0	0.0017			
		2228.0	0.0011			
		2290.0	0.1083			
		2383.0	0.0022			
		2415.0	0.0708			
		2428.0	0.0019			
		2480.0	0.0014			
		2548.0	0.0013			
		2602.0	0.0012			
		2634.0	0.0701			
		2828.0	0.0010			
		2869.0	0.0410			
		2956.0	0.0075			
		2979.0	0.0032			
		3141.0	0.0072			
		3195.0	0.0017			
		3212.0	0.0053			
		3349.0	0.0020			
		3626.0	0.0017			
		3635.0	0.0012			
		3674.0	0.0017			
		4064.0	0.0017			
		4269.0	0.0037			
		4474.0	0.0014			
		4739.0	0.0011			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		4889.0	0.0015			
		4929.0	0.0012			
		5608.0	0.0015			
		5800.0	0.0013			
		6104.0	0.0014			
		4129.0	0.0242			
122Xe	20.1h	28.3	0.2218	4.867-5	0.413	7.257
		28.6	0.4131			
		32.3	0.1448			
		61.8	0.0044			
		72.6	0.0023			
		90.7	0.0072			
		116.3	0.0012			
		148.8	0.0368			
		163.3	0.0017			
		174.7	0.0018			
		175.7	0.0039			
		187.1	0.0074			
		201.6	0.0016			
		253.7	0.0014			
		288.4	0.0055			
		350.2	0.0920			
		355.2	0.0021			
		416.9	0.0207			
		79.4	0.0027			
123Xe	2.1h	28.3	0.2100	1.407-4	2.611	1.147
		28.6	0.3911			
		32.3	0.1370			
		138.1	0.0024			
		148.9	0.4800			
		178.1	0.1464			
		330.2	0.0840			
		474.2	0.0010			
		680.5	0.0020			
		691.5	0.0011			
		718.5	0.0017			
		728.3	0.0012			
		782.9	0.0044			
		870.7	0.0028			
		899.6	0.0240			
		934.9	0.0031			
		964.0	0.0053			
		979.4	0.0028			
		1011.0	0.0043			
		1014.0	0.0012			
		1049.0	0.0013			
		1061.0	0.0077			
		1064.0	0.0065			
		1093.0	0.0274			
		1113.0	0.0154			
		1161.0	0.0010			
		1242.0	0.0011			
		1242.0	0.0044			
		1310.0	0.0013			
		1391.0	0.0012			
		1535.0	0.0030			
		1604.0	0.0017			
		1626.0	0.0058			
		1657.0	0.0013			
		1687.0	0.0060			
		1716.0	0.0019			
		1732.0	0.0014			
		1807.0	0.0122			
		1822.0	0.0012			
		1884.0	0.0062			
		1934.0	0.0022			
		1974.0	0.0013			
		2003.0	0.0018			
		2038.0	0.0024			
		2072.0	0.0016			
		2101.0	0.0015			
		1447.0	0.0270			
		511.0	0.4452			
125Xe	16.8h	28.3	0.2892	9.619-5	0.629	4.766
		28.6	0.5386			
		32.3	0.1887			
		55.0	0.0595			
		74.9	0.0012			
		113.6	0.0048			
		188.4	0.5510			
		243.4	0.2893			
		372.1	0.0025			
		453.8	0.0424			
		635.8	0.0010			
		635.8	0.0012			
		846.5	0.0104			
		901.5	0.0054			
		937.3	0.0012			
		992.5	0.0010			
		1007.0	0.0014			
		1138.0	0.0029			
		1181.0	0.0063			
		904.8	0.0040			
		511.0	0.0143			
127Xe	36.4d	28.3	0.2503	9.331-5	0.398	7.526
		28.6	0.4661			
		32.3	0.1633			
		57.6	0.0131			
		145.2	0.0424			
		172.1	0.2470			
		202.8	0.6810			
		375.0	0.1740			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		618.4	0.0001			
129mXe	8.9d	29.5	0.3612	6.165−5	0.013	235.8
		29.8	0.6701			
		33.6	0.2382			
		39.6	0.0752			
		196.6	0.0474			
131mXe	11.8d	29.5	0.1548	2.533−5	0.011	263.7
		29.8	0.2872			
		33.6	0.1021			
		163.9	0.0196			
133Xe	5.2d	30.6	0.1364	2.783−5	0.075	39.877
		31.0	0.2526			
		35.0	0.0906			
		79.6	0.0022			
		81.0	0.3648			
		177.7	0.0007			
133mXe	2.2d	29.5	0.1601	3.034−5	0.152	19.750
		29.8	0.2970			
		33.6	0.1056			
		233.2	0.1030			
135Xe	9.1h	30.6	0.0145	5.118−5	0.596	5.026
		31.0	0.0268			
		35.0	0.0096			
		158.2	0.0029			
		249.8	0.8990			
		358.4	0.0022			
		408.0	0.0036			
		608.2	0.0290			
		684.3	0.0021			
135mXe	15.4m	29.5	0.0384	8.540−5	1.796	1.668
		29.8	0.0713			
		33.6	0.0254			
		526.6	0.8100			
137Xe	3.8m	30.6	0.0009	3.340−5	2.393	1.252
		31.0	0.0017			
		35.0	0.0006			
		298.0	0.0012			
		393.4	0.0014			
		455.5	0.3070			
		849.0	0.0061			
		982.2	0.0021			
		1119.0	0.0011			
		1273.0	0.0022			
		1577.0	0.0010			
		1613.0	0.0012			
		1783.0	0.0041			
		2850.0	0.0018			
		1491.0	0.0131			
138Xe	14.1m	10.9	0.0070	1.664−4	4.894	0.612
		30.6	0.0103			
		31.0	0.0190			
		35.0	0.0068			
		153.8	0.0595			
		242.6	0.0350			
		258.3	0.3150			
		282.5	0.0043			
		335.3	0.0011			
		371.4	0.0050			
		396.4	0.0630			
		401.4	0.0217			
		434.5	0.2032			
		500.2	0.0036			
		530.1	0.0025			
		537.8	0.0012			
		555.9	0.0012			
		568.5	0.0031			
		588.8	0.0012			
		654.1	0.0014			
		865.8	0.0030			
		869.4	0.0062			
		896.9	0.0013			
		912.5	0.0033			
		917.1	0.0092			
		936.4	0.0014			
		941.3	0.0023			
		1094.0	0.0041			
		1099.0	0.0021			
		1102.0	0.0011			
		1114.0	0.0147			
		1142.0	0.0051			
		1145.0	0.0013			
		1572.0	0.0026			
		1615.0	0.0024			
		1768.0	0.1673			
		1812.0	0.0018			
		1851.0	0.0142			
		1925.0	0.0056			
		2005.0	0.0536			
		2016.0	0.1225			
		2079.0	0.0144			
		2252.0	0.0229			
		2322.0	0.0062			
		2475.0	0.0031			
		2498.0	0.0017			
		1119.0	0.0266			
126Cs	1.6m	29.5	0.0410	2.141−4	1.895	1.581
		29.8	0.0760			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		33.6	0.0270			
		364.6	0.0042			
		388.6	0.3800			
		434.0	0.0106			
		491.2	0.0410			
		548.7	0.0061			
		553.4	0.0027			
		736.5	0.0023			
		798.1	0.0047			
		879.9	0.0119			
		925.2	0.0448			
		1033.0	0.0027			
		1290.0	0.0034			
		1608.0	0.0011			
		1623.0	0.0022			
		1675.0	0.0019			
		1678.0	0.0072			
		1959.0	0.0019			
		2067.0	0.0030			
		2407.0	0.0013			
		1850.0	0.0038			
		511.0	1.6410			
129Cs	1.3d	29.5	0.2975	9.720−5	0.932	3.216
		29.8	0.5519			
		33.6	0.1962			
		39.6	0.0302			
		93.3	0.0066			
		177.0	0.0027			
		266.8	0.0028			
		270.3	0.0022			
		278.6	0.0134			
		282.1	0.0025			
		318.2	0.0249			
		371.9	0.3110			
		411.5	0.2267			
		549.0	0.0345			
		588.5	0.0061			
		906.4	0.0022			
		636.5	0.0028			
131Cs	9.7d	29.5	0.2109	3.363−5	0.010	310.3
		29.8	0.3913			
		33.6	0.1391			
132Cs	6.5d	29.5	0.2110	1.549−4	2.312	1.296
		29.8	0.3914			
		33.6	0.1392			
		505.9	0.0080			
		630.2	0.0101			
		667.7	0.9742			
		1136.0	0.0051			
		1318.0	0.0058			
		1090.0	0.0027			
		511.0	0.0072			
		464.6	0.0189			
		567.1	0.0024			
		1032.0	0.0012			
		663.1	0.0006			
134Cs	2.1y	31.8	0.0021	2.687−4	2.738	1.094
		32.2	0.0040			
		36.4	0.0014			
		475.4	0.0146			
		563.2	0.0838			
		569.3	0.1543			
		604.7	0.9760			
		795.8	0.8540			
		801.9	0.0873			
		1039.0	0.0100			
		1168.0	0.0180			
		1365.0	0.0304			
		276.9	0.0004			
134mCs	2.9h	11.3	0.0094	1.904−5	0.039	75.989
		30.6	0.0895			
		31.0	0.1657			
		35.0	0.0595			
		127.4	0.1290			
		138.7	0.0001			
136Cs	13.2d	31.8	0.0495	3.632−4	3.436	0.872
		32.2	0.0912			
		36.4	0.0332			
		66.9	0.1246			
		86.3	0.0628			
		109.7	0.0041			
		153.2	0.0746			
		163.9	0.0461			
		166.5	0.0063			
		176.5	0.1356			
		187.3	0.0060			
		273.6	0.1266			
		319.9	0.0060			
		340.6	0.4845			
		507.2	0.0098			
		818.5	0.9970			
		1048.0	0.7956			
		1235.0	0.1974			
		787.2	0.0033			
137Cs	30.17y				1.017−4	from 137mBa

See page 41 for energies.

Nuclide	Half-life	E	Prob.	Γ	T	μ
138Cs	32.2m	31.8	0.0029	3.395−4	4.716	0.635
		32.2	0.0053			
		36.4	0.0019			
		112.6	0.0013			
		138.1	0.0149			
		192.0	0.0050			
		193.9	0.0033			
		212.3	0.0017			
		227.8	0.0151			
		324.9	0.0029			
		363.9	0.0024			
		365.3	0.0019			
		409.0	0.0466			
		421.6	0.0043			
		462.8	0.3075			
		516.7	0.0043			
		546.9	0.1076			
		683.6	0.0011			
		766.1	0.0015			
		773.3	0.0023			
		782.1	0.0033			
		871.8	0.0511			
		880.8	0.0011			
		935.0	0.0018			
		1010.0	0.2983			
		1054.0	0.0016			
		1147.0	0.0124			
		1199.0	0.0017			
		1204.0	0.0040			
		1265.0	0.0014			
		1344.0	0.0114			
		1416.0	0.0037			
		1436.0	0.7630			
		1445.0	0.0097			
		1496.0	0.0018			
		1555.0	0.0037			
		1614.0	0.0014			
		1717.0	0.0011			
		1728.0	0.0011			
		1778.0	0.0014			
		2024.0	0.0012			
		2062.0	0.0011			
		2211.0	0.0021			
		2218.0	0.1518			
		2499.0	0.0017			
		2583.0	0.0024			
		2640.0	0.0763			
		2731.0	0.0012			
		3339.0	0.0015			
		3367.0	0.0023			
		1613.0	0.0162			
139Cs	9.4m	454.7	0.0013	4.218−5	5.022	0.596
		532.0	0.0021			
		567.7	0.0013			
		627.2	0.0154			
		827.5	0.0011			
		929.2	0.0023			
		946.5	0.0010			
		1190.0	0.0018			
		1283.0	0.0720			
		1306.0	0.0011			
		1308.0	0.0037			
		1322.0	0.0023			
		1411.0	0.0015			
		1421.0	0.0080			
		1621.0	0.0042			
		1681.0	0.0060			
		1699.0	0.0018			
		1877.0	0.0034			
		1888.0	0.0022			
		1904.0	0.0012			
		1934.0	0.0024			
		2021.0	0.0013			
		2090.0	0.0014			
		2111.0	0.0066			
		2174.0	0.0020			
		2350.0	0.0056			
		2381.0	0.0019			
		2532.0	0.0042			
		2606.0	0.0024			
		2649.0	0.0017			
		2848.0	0.0010			
		3464.0	0.0011			
		3666.0	0.0014			
		1569.0	0.0387			
131Ba	11.8d	30.6	0.2766	1.244−4	1.338	2.239
		31.0	0.5121			
		35.0	0.1838			
		78.8	0.0073			
		92.3	0.0064			
		123.8	0.2897			
		133.6	0.0216			
		157.1	0.0019			
		216.1	0.1975			
		239.6	0.0240			
		246.9	0.0064			
		249.4	0.0282			
		294.5	0.0017			
		351.2	0.0010			
		373.2	0.1399			
		404.0	0.0131			
		461.3	0.0010			
		480.4	0.0032			
		486.5	0.0207			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		496.3	0.4680			
		572.7	0.0016			
		585.0	0.0122			
		620.1	0.0136			
		674.4	0.0013			
		696.5	0.0015			
		831.6	0.0023			
		923.8	0.0073			
		1048.0	0.0117			
		501.9	0.0058			
133Ba	10.5y	30.6	0.3425	1.231-4	0.715	4.188
		31.0	0.6342			
		35.0	0.2276			
		53.1	0.0214			
		79.6	0.0255			
		81.0	0.3297			
		160.6	0.0060			
		223.1	0.0044			
		276.4	0.0690			
		302.8	0.1779			
		356.0	0.6050			
		383.8	0.0867			
133mBa	1.6d	12.3	0.0135	3.372-5	0.341	8.792
		31.8	0.1509			
		32.2	0.2784			
		36.4	0.1013			
		276.1	0.1800			
135mBa	1.2d	31.8	0.1535	2.974-5	0.316	9.494
		32.2	0.2832			
		36.4	0.1030			
		268.2	0.1600			
137mBa	2.6m	31.8	0.0207	1.075-4	2.447	1.224
		32.2	0.0382			
		36.4	0.0139			
		661.7	0.8998			
139Ba	1.4h	33.0	0.0093	7.714-6	1.062	2.820
		33.4	0.0172			
		37.8	0.0063			
		165.8	0.1736			
		1420.0	0.0028			
		1271.0	0.0011			
140Ba	12.8d	13.8	0.0117	4.413-5	1.583	1.892
		30.0	0.1403			
		33.0	0.0053			
		33.4	0.0098			
		37.8	0.0036			
		132.8	0.0021			
		162.6	0.0673			
		304.8	0.0451			
		423.7	0.0325			
		437.6	0.0199			
		467.6	0.0015			
		537.3	0.2550			
		118.8	0.0007			
141Ba	18.3m	33.0	0.0195	1.559-4	3.049	0.982
		33.4	0.0360			
		37.8	0.0132			
		112.9	0.0099			
		163.0	0.0047			
		180.5	0.0052			
		190.2	0.4860			
		277.0	0.2459			
		304.2	0.2658			
		343.7	0.1502			
		349.3	0.0030			
		364.4	0.0061			
		381.3	0.0012			
		389.8	0.0140			
		457.6	0.0505			
		462.1	0.0505			
		467.3	0.0578			
		522.2	0.0046			
		524.2	0.0043			
		527.4	0.0040			
		561.9	0.0010			
		572.1	0.0027			
		572.1	0.0027			
		599.3	0.0025			
		608.9	0.0026			
		625.2	0.0345			
		636.0	0.0030			
		641.4	0.0038			
		647.9	0.0593			
		670.0	0.0019			
		674.2	0.0011			
		675.7	0.0023			
		685.7	0.0014			
		687.8	0.0011			
		698.5	0.0030			
		700.0	0.0022			
		704.8	0.0032			
		739.1	0.0452			
		753.9	0.0010			
		762.2	0.0015			
		778.2	0.0011			
		805.4	0.0010			
		826.3	0.0035			
		831.7	0.0160			
		832.6	0.0017			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		867.9	0.0016			
		876.3	0.0360			
		880.6	0.0021			
		908.8	0.0013			
		929.5	0.0073			
		943.3	0.0077			
		981.6	0.0082			
		996.6	0.0013			
		1012.0	0.0011			
		1035.0	0.0031			
		1040.0	0.0010			
		1046.0	0.0036			
		1094.0	0.0023			
		1161.0	0.0025			
		1161.0	0.0097			
		1198.0	0.0486			
		1225.0	0.0043			
		1236.0	0.0015			
		1264.0	0.0087			
		1274.0	0.0054			
		1278.0	0.0069			
		1309.0	0.0025			
		1311.0	0.0063			
		1324.0	0.0100			
		1345.0	0.0023			
		1358.0	0.0017			
		1377.0	0.0074			
		1406.0	0.0029			
		1437.0	0.0087			
		1459.0	0.0071			
		1502.0	0.0033			
		1551.0	0.0033			
		1569.0	0.0027			
		1654.0	0.0079			
		1682.0	0.0141			
		1713.0	0.0018			
		1736.0	0.0019			
		1741.0	0.0033			
		1796.0	0.0051			
		1913.0	0.0014			
		1990.0	0.0019			
		2027.0	0.0040			
		2137.0	0.0012			
		2165.0	0.0017			
		2279.0	0.0010			
		2469.0	0.0019			
		1252.0	0.0173			
142Ba	10.7m	33.0	0.0555	1.536−4	3.564	0.841
		33.4	0.1021			
		37.8	0.0375			
		69.4	0.0036			
		76.8	0.0089			
		77.6	0.0961			
		122.9	0.0093			
		154.2	0.0052			
		162.0	0.0011			
		176.8	0.0148			
		216.3	0.0020			
		222.6	0.0027			
		231.5	0.1015			
		242.7	0.0016			
		255.1	0.1780			
		269.3	0.0068			
		283.9	0.0018			
		286.2	0.0093			
		309.0	0.0226			
		334.8	0.0125			
		337.1	0.0025			
		346.7	0.0014			
		363.8	0.0392			
		379.1	0.0046			
		417.8	0.0034			
		425.0	0.0498			
		432.3	0.0098			
		434.4	0.0030			
		448.1	0.0021			
		457.3	0.0039			
		473.4	0.0030			
		488.3	0.0011			
		513.3	0.0023			
		537.5	0.0011			
		558.3	0.0030			
		590.7	0.0025			
		599.8	0.0160			
		604.2	0.0032			
		769.4	0.0061			
		786.4	0.0025			
		792.2	0.0021			
		823.4	0.0041			
		840.2	0.0303			
		894.9	0.1104			
		948.8	0.0890			
		1001.0	0.0783			
		1033.0	0.0048			
		1078.0	0.0926			
		1094.0	0.0221			
		1123.0	0.0030			
		1127.0	0.0153			
		1148.0	0.0039			
		1202.0	0.0534			
		1204.0	0.1371			
		1283.0	0.0016			
		1380.0	0.0340			
		685.1	0.0016			

Nuclide	Half-life	E	Prob.	Γ	T	μ
140La	1.7d	34.3	0.0047	3.424−4	4.532	0.661
		34.7	0.0087			
		39.3	0.0032			
		109.4	0.0019			
		131.1	0.0055			
		173.6	0.0012			
		242.0	0.0043			
		266.6	0.0049			
		328.8	0.2053			
		432.5	0.0294			
		487.0	0.4555			
		751.8	0.0440			
		815.9	0.2349			
		867.8	0.0563			
		919.6	0.0288			
		925.2	0.0708			
		950.9	0.0053			
		1597.0	0.9549			
		2349.0	0.0085			
		2522.0	0.0346			
		2547.0	0.0010			
		1208.0	0.0042			
141La	3.9h	1354.0	0.0262	6.088−6	4.731	0.633
		1693.0	0.0012			
		1674.0	0.0031			
142La	1.6h	34.3	0.0006	3.586−4	5.354	0.560
		34.7	0.0012			
		39.3	0.0004			
		106.1	0.0016			
		174.1	0.0011			
		367.3	0.0011			
		393.7	0.0011			
		420.8	0.0026			
		433.3	0.0042			
		514.7	0.0016			
		532.0	0.0016			
		578.1	0.0136			
		619.5	0.0016			
		641.2	0.5250			
		861.6	0.0199			
		878.2	0.0021			
		894.9	0.0940			
		946.5	0.0011			
		962.2	0.0042			
		991.2	0.0011			
		1007.0	0.0026			
		1011.0	0.0436			
		1039.0	0.0011			
		1044.0	0.0305			
		1062.0	0.0016			
		1070.0	0.0016			
		1074.0	0.0011			
		1089.0	0.0026			
		1113.0	0.0011			
		1117.0	0.0011			
		1131.0	0.0052			
		1144.0	0.0016			
		1160.0	0.0194			
		1174.0	0.0016			
		1191.0	0.0042			
		1231.0	0.0032			
		1233.0	0.0205			
		1242.0	0.0021			
		1265.0	0.0011			
		1270.0	0.0011			
		1288.0	0.0011			
		1323.0	0.0037			
		1332.0	0.0011			
		1355.0	0.0011			
		1363.0	0.0236			
		1374.0	0.0021			
		1389.0	0.0047			
		1395.0	0.0021			
		1402.0	0.0016			
		1446.0	0.0016			
		1455.0	0.0011			
		1494.0	0.0016			
		1516.0	0.0047			
		1535.0	0.0026			
		1540.0	0.0052			
		1546.0	0.0331			
		1618.0	0.0032			
		1651.0	0.0021			
		1688.0	0.0026			
		1723.0	0.0168			
		1752.0	0.0011			
		1756.0	0.0331			
		1768.0	0.0021			
		1771.0	0.0021			
		1794.0	0.0011			
		1806.0	0.0016			
		1817.0	0.0011			
		1885.0	0.0058			
		1901.0	0.0871			
		1923.0	0.0026			
		1934.0	0.0016			
		1948.0	0.0052			
		1961.0	0.0016			
		2004.0	0.0105			
		2026.0	0.0136			
		2039.0	0.0110			
		2050.0	0.0052			
		2055.0	0.0294			
		2077.0	0.0073			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		2086.0	0.0042			
		2100.0	0.0105			
		2126.0	0.0037			
		2139.0	0.0058			
		2180.0	0.0058			
		2187.0	0.0583			
		2290.0	0.0037			
		2358.0	0.0084			
		2364.0	0.0047			
		2398.0	0.1627			
		2420.0	0.0021			
		2459.0	0.0042			
		2513.0	0.0016			
		2532.0	0.0011			
		2539.0	0.0079			
		2543.0	0.1123			
		2663.0	0.0079			
		2667.0	0.0189			
		2673.0	0.0021			
		2782.0	0.0032			
		2801.0	0.0063			
		2818.0	0.0084			
		2829.0	0.0026			
		2970.0	0.0079			
		2972.0	0.0331			
		2992.0	0.0011			
		3000.0	0.0052			
		3007.0	0.0021			
		3013.0	0.0073			
		3022.0	0.0011			
		3034.0	0.0058			
		3047.0	0.0042			
		3076.0	0.0016			
		3155.0	0.0021			
		3181.0	0.0032			
		3237.0	0.0032			
		3242.0	0.0021			
		3273.0	0.0016			
		3315.0	0.0136			
		3402.0	0.0032			
		3459.0	0.0037			
		3612.0	0.0089			
		3633.0	0.0115			
		3719.0	0.0032			
		3850.0	0.0026			
139Ce	137.7d	33.0	0.2248	5.554−5	0.134	22.320
		33.4	0.4140			
		37.8	0.1521			
		165.8	0.8035			
141Ce	32.5d	35.5	0.0488	1.979−5	0.115	26.056
		36.0	0.0894			
		40.7	0.0336			
		145.4	0.4840			
143Ce	1.4d	35.5	0.1768	6.886−5	1.418	2.113
		36.0	0.3239			
		40.7	0.1217			
		57.4	0.1176			
		169.0	0.0029			
		216.0	0.0021			
		231.6	0.0202			
		293.3	0.4200			
		338.0	0.0029			
		350.6	0.0336			
		433.0	0.0013			
		439.0	0.0012			
		490.4	0.0197			
		587.3	0.0024			
		664.6	0.0525			
		722.0	0.0512			
		880.4	0.0092			
		1103.0	0.0037			
		610.6	0.0089			
144Ce	284.3d	33.6	0.0028	6.302−6	0.084	35.806
		35.5	0.0243			
		36.0	0.0445			
		40.7	0.0167			
		40.9	0.0039			
		80.1	0.0160			
		133.5	0.1080			
		67.3	0.0013			
142Pr	19.1h	1576.0	0.0370	8.050−6	5.069	0.591
		508.8	0.0002			
143Pr	13.6d	742.0	0.00001	1.52+-12	2.824	1.061
144Pr	17.3m	696.5	0.0148	4.545−6	4.825	0.621
		1489.0	0.0030			
		2186.0	0.0077			
		1059.0	0.0002			
144mPr	7.2m	35.5	0.0868	9.933−6	0.016	184.2
		36.0	0.1589			
		40.7	0.0597			
		59.0	0.0008			
147Nd	11.0d	38.2	0.1296	3.751−5	1.337	2.241
		38.7	0.2356			
		43.8	0.0906			
		91.1	0.2800			
		120.5	0.0040			
		196.6	0.0020			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		275.4	0.0080			
		319.4	0.0196			
		398.2	0.0087			
		410.5	0.0014			
		439.9	0.0120			
		489.2	0.0015			
		531.0	0.1313			
		594.8	0.0027			
		685.9	0.0081			
		616.6	0.0007			
149Nd	1.7h	38.2	0.0909	8.093−5	1.359	2.205
		38.7	0.1652			
		43.8	0.0635			
		58.9	0.0151			
		74.3	0.0125			
		74.7	0.0098			
		75.7	0.0033			
		97.0	0.0152			
		114.3	0.1877			
		116.9	0.0012			
		122.4	0.0023			
		126.6	0.0011			
		139.2	0.0048			
		155.9	0.0604			
		177.8	0.0016			
		188.6	0.0199			
		192.0	0.0059			
		198.9	0.0144			
		208.2	0.0291			
		211.3	0.2720			
		213.9	0.0041			
		226.8	0.0016			
		240.2	0.0394			
		245.7	0.0103			
		258.1	0.0038			
		267.7	0.0604			
		270.2	0.1061			
		273.2	0.0023			
		275.4	0.0060			
		277.0	0.0032			
		282.5	0.0061			
		288.2	0.0067			
		294.8	0.0058			
		301.1	0.0038			
		311.0	0.0052			
		326.6	0.0465			
		347.8	0.0019			
		349.2	0.0147			
		360.1	0.0016			
		366.6	0.0066			
		384.7	0.0033			
		423.6	0.0941			
		443.5	0.0150			
		538.2	0.0011			
		540.5	0.0767			
		556.4	0.0117			
		630.2	0.0022			
		635.5	0.0011			
		654.8	0.0732			
		686.9	0.0010			
		696.3	0.0017			
		808.8	0.0017			
		923.9	0.0011			
		979.0	0.0011			
		1023.0	0.0012			
		1234.0	0.0029			
		634.0	0.0158			
143Pm	265.0d	36.8	0.2169	7.201−5	2.452	1.222
		37.4	0.3958			
		42.3	0.1507			
		742.0	0.3830			
144Pm	363.0d	36.8	0.2219	2.944−4	2.305	1.300
		37.4	0.4049			
		42.3	0.1542			
		301.7	0.0018			
		476.8	0.4199			
		582.4	0.0019			
		618.0	0.9860			
		694.0	0.0055			
		696.5	0.9949			
		778.6	0.0151			
		814.1	0.0055			
		897.6	0.0004			
145Pm	17.7y	36.8	0.2174	2.418−5	0.020	152.1
		37.4	0.3967			
		42.3	0.1511			
		67.2	0.0069			
		72.4	0.0231			
146Pm	5.5y	36.8	0.1394	1.460−4	2.275	1.317
		37.4	0.2543			
		42.3	0.0969			
		146.2	0.0021			
		453.9	0.6273			
		589.0	0.0058			
		735.9	0.2196			
		39.5	0.0004			
		40.1	0.0007			
		45.4	0.0003			
		633.0	0.0220			
		747.1	0.3613			

Nuclide	Half-life	E	Prob.	Γ	T	μ
147Pm	2.6y	121.3	0.00007	2.3+-10	0.082	36.526
148Pm	5.4d	39.5	0.0005	8.885-5	4.046	0.740
		40.1	0.0009			
		45.4	0.0003			
		550.3	0.2200			
		592.8	0.0035			
		611.3	0.0102			
		874.2	0.0024			
		896.4	0.0098			
		914.8	0.1145			
		1465.0	0.2220			
		1294.0	0.0030			
148mPm	41.3d	38.2	0.0073	3.544-4	2.477	1.209
		38.7	0.0132			
		43.8	0.0051			
		75.7	0.0093			
		61.5	0.0000			
		39.5	0.0167			
		40.1	0.0303			
		45.4	0.0117			
		98.5	0.0247			
		189.6	0.0110			
		288.1	0.1256			
		311.6	0.0392			
		362.1	0.0018			
		414.1	0.1866			
		432.8	0.0535			
		460.6	0.0042			
		501.3	0.0675			
		550.3	0.9487			
		553.2	0.0040			
		572.0	0.0021			
		599.7	0.1254			
		611.3	0.0548			
		630.0	0.8900			
		725.7	0.3284			
		915.3	0.1717			
		1014.0	0.2028			
		714.8	0.0019			
149Pm	2.2d	39.5	0.0006	2.314-6	1.205	2.485
		40.1	0.0012			
		45.4	0.0005			
		285.9	0.0310			
		859.4	0.0010			
		598.3	0.0030			
151Pm	1.2d	25.7	0.0094	7.080-5	1.522	1.969
		39.5	0.0807			
		40.1	0.1462			
		45.4	0.0567			
		62.9	0.0022			
		64.9	0.0197			
		65.8	0.0117			
		69.7	0.0048			
		76.2	0.0021			
		98.0	0.0037			
		100.0	0.0256			
		101.9	0.0131			
		104.8	0.0355			
		139.3	0.0051			
		143.2	0.0022			
		147.5	0.0015			
		156.2	0.0015			
		162.9	0.0089			
		163.6	0.0163			
		167.8	0.0879			
		168.4	0.0092			
		176.5	0.0087			
		177.2	0.0387			
		186.6	0.0017			
		202.0	0.0094			
		204.2	0.0013			
		209.0	0.0179			
		227.2	0.0034			
		232.4	0.0105			
		236.6	0.0016			
		236.7	0.0020			
		237.0	0.0053			
		240.1	0.0389			
		254.3	0.0016			
		258.1	0.0060			
		275.2	0.0717			
		280.1	0.0023			
		290.8	0.0088			
		306.7	0.0024			
		323.9	0.0121			
		325.8	0.0011			
		329.8	0.0021			
		340.1	0.2290			
		344.9	0.0218			
		349.8	0.0014			
		353.3	0.0011			
		379.9	0.0097			
		407.0	0.0019			
		440.9	0.0153			
		445.7	0.0408			
		451.4	0.0030			
		490.3	0.0013			
		516.3	0.0020			
		565.0	0.0036			
		575.0	0.0012			
		636.2	0.0147			
		654.3	0.0025			
		668.7	0.0036			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		669.2	0.0029			
		671.3	0.0093			
		704.2	0.0035			
		709.3	0.0015			
		712.0	0.0011			
		717.8	0.0412			
		736.1	0.0049			
		752.8	0.0133			
		769.1	0.0011			
		772.8	0.0096			
		785.1	0.0023			
		807.9	0.0053			
		817.7	0.0017			
		848.7	0.0030			
		877.7	0.0010			
		948.7	0.0036			
		428.8	0.0436			
151Sm	90y	21.5	0.0003	2.442−8	0.004	776.6
153Sm	1.9d	40.9	0.1726	2.440−5	0.043	69.799
		41.5	0.3122			
		47.0	0.1222			
		69.7	0.0517			
		75.4	0.0019			
		83.4	0.0020			
		89.5	0.0016			
		97.4	0.0072			
		103.2	0.2830			
		422.7	0.0028			
152Eu	13.6y	39.5	0.2083	2.009−4	3.604	0.831
		40.1	0.3773			
		45.4	0.1464			
		121.8	0.2843			
		244.7	0.0749			
		295.9	0.0043			
		329.3	0.0012			
		415.9	0.0010			
		444.0	0.0281			
		444.0	0.0030			
		488.7	0.0041			
		564.0	0.0048			
		566.4	0.0013			
		656.4	0.0014			
		674.6	0.0015			
		688.6	0.0084			
		719.3	0.0027			
		810.4	0.0031			
		841.5	0.0016			
		867.3	0.0416			
		919.3	0.0040			
		926.2	0.0026			
		963.4	0.0011			
		964.0	0.1444			
		1005.0	0.0066			
		1085.0	0.0025			
		1086.0	0.0996			
		1112.0	0.1330			
		1213.0	0.0138			
		1250.0	0.0018			
		1293.0	0.0010			
		1408.0	0.2075			
		1458.0	0.0049			
		1528.0	0.0026			
		685.8	0.0087			
		42.3	0.0022			
		43.0	0.0039			
		48.7	0.0016			
		344.3	0.2649			
		367.7	0.0086			
		411.1	0.0221			
		503.4	0.0015			
		586.3	0.0045			
		678.6	0.0047			
		764.8	0.0017			
		778.9	0.1274			
		1090.0	0.0168			
		1109.0	0.0017			
		1299.0	0.0160			
		631.4	0.0071			
152mEu	9.3h	39.5	0.0788	5.742−5	3.290	0.911
		40.1	0.1428			
		45.4	0.0554			
		121.8	0.0745			
		562.9	0.0023			
		841.5	0.1508			
		961.1	0.0021			
		963.4	0.1241			
		1389.0	0.0088			
		794.2	0.0041			
		344.3	0.0249			
		970.4	0.0062			
		1315.0	0.0098			
		676.7	0.0032			
154Eu	8.8y	42.3	0.0726	2.039−4	3.734	0.802
		43.0	0.1309			
		48.7	0.0517			
		123.1	0.4046			
		188.3	0.0023			
		247.9	0.0660			
		401.3	0.0021			
		444.5	0.0050			
		478.3	0.0022			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		557.6	0.0026			
		582.0	0.0084			
		591.8	0.0483			
		625.2	0.0031			
		676.6	0.0014			
		692.4	0.0169			
		715.8	0.0017			
		723.3	0.1970			
		756.9	0.0433			
		815.6	0.0047			
		845.4	0.0055			
		850.6	0.0023			
		873.2	0.1150			
		892.7	0.0046			
		904.0	0.0082			
		996.3	0.1029			
		1005.0	0.1789			
		1047.0	0.0014			
		1118.0	0.0010			
		1128.0	0.0027			
		1141.0	0.0022			
		1242.0	0.0013			
		1246.0	0.0090			
		1274.0	0.3549			
		1494.0	0.0065			
		1593.0	0.0103			
		1597.0	0.0185			
		710.5	0.0159			
155Eu	5.0y	26.5	0.0032	1.804−5	0.105	28.563
		42.3	0.0647			
		43.0	0.1166			
		45.3	0.0129			
		48.7	0.0460			
		60.0	0.0111			
		86.1	0.0015			
		86.5	0.3090			
		105.3	0.2067			
		69.3	0.0018			
156Eu	15.2d	42.3	0.0383	1.978−4	4.622	0.648
		43.0	0.0691			
		48.7	0.0273			
		89.0	0.0905			
		199.2	0.0079			
		434.4	0.0022			
		472.7	0.0015			
		490.3	0.0018			
		599.5	0.0231			
		646.3	0.0709			
		709.9	0.0092			
		723.5	0.0602			
		797.7	0.0011			
		811.8	0.1040			
		820.4	0.0016			
		841.1	0.0023			
		858.4	0.0013			
		866.0	0.0016			
		867.0	0.0140			
		944.4	0.0139			
		947.5	0.0031			
		960.5	0.0162			
		961.0	0.0016			
		969.8	0.0039			
		1012.0	0.0034			
		1027.0	0.0012			
		1040.0	0.0053			
		1065.0	0.0524			
		1076.0	0.0037			
		1079.0	0.0489			
		1130.0	0.0014			
		1141.0	0.0030			
		1153.0	0.0718			
		1154.0	0.0530			
		1156.0	0.0014			
		1169.0	0.0029			
		1231.0	0.0894			
		1242.0	0.0676			
		1277.0	0.0321			
		1366.0	0.0176			
		1682.0	0.0030			
		1857.0	0.0025			
		1877.0	0.0173			
		1938.0	0.0214			
		1946.0	0.0019			
		1966.0	0.0420			
		2027.0	0.0354			
		2033.0	0.0013			
		2098.0	0.0427			
		2116.0	0.0013			
		2181.0	0.0243			
		2187.0	0.0395			
		2205.0	0.0100			
		2270.0	0.0112			
		1103.0	0.0159			
153Gd	241.6d	40.9	0.3579	4.659−5	0.038	79.273
		41.5	0.6472			
		47.0	0.2533			
		69.7	0.0257			
		83.4	0.0022			
		97.4	0.3130			
		103.2	0.2222			
		95.8	0.0022			
159Gd	18.6h	43.7	0.0430	1.059−5	0.827	3.622

Nuclide	Half-life	E	Prob.	Γ	T	μ
		44.5	0.0773			
		50.4	0.0307			
		58.0	0.0176			
		226.0	0.0016			
		348.2	0.0017			
		363.6	0.0840			
		364.0	0.0021			
162Gd	9.7m	38.8	0.0647	8.341−5	1.313	2.282
		43.7	0.0016			
		44.5	0.0029			
		50.4	0.0012			
		402.8	0.4620			
		441.6	0.5313			
157Tb	150y	42.3	0.0265	2.426−6	0.026	114.4
		43.0	0.0478			
		48.7	0.0189			
		54.5	0.0001			
160Tb	72.3d	45.2	0.0603	1.787−4	3.594	0.834
		46.0	0.1079			
		52.1	0.0432			
		86.8	0.1330			
		197.0	0.0490			
		215.7	0.0371			
		298.6	0.2707			
		309.6	0.0082			
		337.3	0.0033			
		392.5	0.0128			
		682.3	0.0055			
		765.3	0.0193			
		872.0	0.0018			
		879.4	0.2850			
		962.3	0.0902			
		966.1	0.2422			
		1003.0	0.0097			
		1103.0	0.0052			
		1115.0	0.0150			
		1178.0	0.1444			
		1200.0	0.0236			
		1272.0	0.0703			
		1312.0	0.0285			
		651.4	0.0051			
162Tb	7.8m	45.2	0.0507	1.923−4	2.944	1.018
		46.0	0.0908			
		52.1	0.0364			
		80.7	0.0850			
		185.0	0.0265			
		185.3	0.1419			
		260.1	0.7873			
		543.2	0.0011			
		622.5	0.0088			
		697.4	0.0254			
		807.5	0.4210			
		882.3	0.1322			
		888.2	0.3806			
		1068.0	0.0055			
		1288.0	0.0015			
		1611.0	0.0014			
		1453.0	0.0114			
157Dy	8.1h	43.7	0.2354	8.357−5	0.739	4.053
		44.5	0.4227			
		50.4	0.1678			
		60.8	0.0045			
		83.0	0.0058			
		182.2	0.0165			
		265.3	0.0018			
		326.2	0.9380			
		594.2	0.0047			
165Dy	2.3h	46.7	0.0259	6.177−6	1.646	1.820
		47.5	0.0461			
		53.9	0.0186			
		94.7	0.0358			
		279.8	0.0050			
		361.7	0.0084			
		545.8	0.0016			
		565.7	0.0013			
		633.4	0.0057			
		715.3	0.0053			
		641.4	0.0067			
166Dy	3.4d	28.2	0.0101	1.550−5	0.129	23.196
		46.7	0.1358			
		47.5	0.2420			
		53.9	0.0978			
		54.2	0.0070			
		82.5	0.1290			
		371.7	0.0049			
		426.0	0.0054			
		333.9	0.0007			
166Ho	1.1d	48.2	0.0286	6.258−6	3.403	0.880
		49.1	0.0508			
		55.7	0.0207			
		80.6	0.0620			
		1379.0	0.0093			
		1582.0	0.0018			
		1662.0	0.0012			
		1182.0	0.0008			
166mHo	1200.0y	48.2	0.1089	2.863−4	2.627	1.140
		49.1	0.1934			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		49.1	0.1934			
		55.7	0.0789			
		80.6	0.1270			
		94.6	0.0016			
		119.0	0.0016			
		121.2	0.0024			
		184.4	0.7260			
		190.7	0.0022			
		214.8	0.0043			
		215.9	0.0257			
		231.3	0.0021			
		259.7	0.0105			
		280.4	0.2962			
		300.7	0.0372			
		339.8	0.0017			
		365.8	0.0242			
		410.9	0.1111			
		451.5	0.0292			
		464.8	0.0120			
		496.7	0.0022			
		529.8	0.0951			
		571.0	0.0547			
		594.4	0.0056			
		611.5	0.0142			
		644.5	0.0015			
		670.5	0.0535			
		691.2	0.0136			
		711.7	0.5409			
		712.4	0.0022			
		736.7	0.0037			
		752.3	0.1205			
		778.8	0.0303			
		810.3	0.5714			
		830.6	0.0966			
		875.6	0.0072			
		950.9	0.0269			
		1120.0	0.0024			
		1147.0	0.0020			
		1241.0	0.0083			
		1282.0	0.0018			
		1401.0	0.0050			
		1427.0	0.0048			
		416.6	0.0063			
169Er	9.4d	110.5	0.00003	3.406−10	0.065	46.160
171Er	7.5h	49.8	0.1309	8.008−5	0.757	3.960
		50.7	0.2316			
		57.5	0.0950			
		111.6	0.2050			
		116.7	0.0230			
		124.0	0.0910			
		210.6	0.0064			
		237.1	0.0030			
		277.4	0.0058			
		295.9	0.2890			
		308.3	0.6440			
		372.0	0.0026			
		670.7	0.0025			
		676.1	0.0029			
		784.1	0.0024			
		796.6	0.0064			
		907.7	0.0063			
		535.2	0.0109			
170Tm	128.6d	51.3	0.0127	1.673−6	0.103	29.074
		52.4	0.0225			
		59.4	0.0093			
		84.2	0.0326			
171Tm	1.9y	51.3	0.0029	2.597−7	0.050	60.086
		52.4	0.0052			
		59.4	0.0021			
		66.7	0.0016			
169Yb	32.0d	20.7	0.0021	8.837−5	0.225	13.301
		49.8	0.5278			
		50.7	0.9341			
		57.5	0.3830			
		63.1	0.4375			
		93.6	0.0266			
		109.8	0.1736			
		118.2	0.0188			
		130.5	0.1106			
		177.2	0.2144			
		198.0	0.3492			
		240.3	0.0012			
		261.1	0.0177			
		307.7	0.1081			
		344.1	0.0018			
175Yb	4.2d	53.0	0.0109	8.233−6	0.999	2.998
		54.1	0.0191			
		61.3	0.0079			
		113.8	0.0189			
		137.7	0.0010			
		144.9	0.0034			
		282.5	0.0302			
		396.3	0.0650			
		251.5	0.0009			
177Lu	6.7d	54.6	0.0163	7.636−6	0.274	10.935
		55.8	0.0285			
		63.2	0.0120			
		71.7	0.0016			
		113.0	0.0638			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		208.4	0.1100			
		249.7	0.0021			
		321.3	0.0022			
		136.7	0.0005			
177mLu	160.1d	53.0	0.0514	2.112-4	0.752	3.983
		54.1	0.0903			
		61.3	0.0376			
		115.8	0.0068			
		121.6	0.0586			
		147.2	0.0359			
		171.9	0.0490			
		195.6	0.0086			
		218.1	0.0299			
		268.8	0.0338			
		319.0	0.1028			
		367.4	0.0297			
		413.6	0.1638			
		54.6	0.3337			
		55.1	0.0120			
		55.8	0.5845			
		63.2	0.2452			
		71.7	0.0089			
		105.3	0.1201			
		113.0	0.2150			
		117.0	0.0024			
		128.5	0.1525			
		136.7	0.0137			
		145.6	0.0090			
		153.3	0.1802			
		159.9	0.0060			
		174.4	0.1261			
		177.0	0.0347			
		204.1	0.1429			
		208.4	0.6125			
		214.4	0.0661			
		228.4	0.3723			
		233.9	0.0565			
		249.7	0.0613			
		281.8	0.1405			
		283.4	0.0052			
		291.4	0.0101			
		292.5	0.0080			
		296.5	0.0541			
		299.0	0.0172			
		305.5	0.0174			
		313.7	0.0138			
		321.3	0.0139			
		327.7	0.1753			
		341.6	0.0179			
		378.5	0.2786			
		385.0	0.0294			
		418.5	0.2006			
		426.3	0.0041			
		466.0	0.0233			
		157.9	0.0020			
181Hf	42.4d	56.3	0.0861	1.061-4	1.441	2.078
		57.5	0.1503			
		65.2	0.0634			
		133.0	0.4167			
		136.3	0.0523			
		136.9	0.0076			
		345.8	0.1715			
		476.0	0.0042			
		482.0	0.8285			
		615.5	0.0014			
		522.6	0.0003			
182Ta	114.7d	31.7	0.0080	2.084-4	3.987	0.751
		42.7	0.0025			
		58.0	0.1041			
		59.3	0.1810			
		65.7	0.0280			
		67.2	0.0770			
		67.7	0.4235			
		84.7	0.0274			
		100.1	0.1407			
		113.7	0.0190			
		116.4	0.0044			
		152.4	0.0717			
		156.4	0.0272			
		179.4	0.0319			
		198.4	0.0151			
		222.1	0.0756			
		229.3	0.0364			
		264.1	0.0364			
		928.0	0.0062			
		959.7	0.0035			
		1002.0	0.0209			
		1044.0	0.0024			
		1113.0	0.0044			
		1121.0	0.3500			
		1157.0	0.0063			
		1158.0	0.0035			
		1189.0	0.1631			
		1221.0	0.2705			
		1224.0	0.0021			
		1231.0	0.1151			
		1257.0	0.0149			
		1274.0	0.0065			
		1289.0	0.0135			
		1343.0	0.0025			
		1374.0	0.0022			
		943.0	0.0040			

Nuclide	Half-life	E	Prob.	Γ	T	μ
181W	120.9d	56.3	0.1869	1.389-5	0.058	52.038
		57.5	0.3263			
		65.2	0.1375			
		147.7	0.0014			
185W	75.1d	125.4	0.0002	5.465-9	0.089	33.602
187W	23.8h	59.7	0.0760	8.853-5	2.213	1.353
		61.1	0.1317			
		69.3	0.0563			
		72.1	0.1191			
		134.2	0.0946			
		206.3	0.0015			
		246.2	0.0013			
		479.5	0.2335			
		511.8	0.0069			
		551.5	0.0544			
		589.1	0.0013			
		618.4	0.0671			
		625.5	0.0116			
		685.8	0.2917			
		745.2	0.0032			
		772.9	0.0440			
		864.5	0.0036			
		879.4	0.0015			
		276.2	0.0042			
188W	69.4d	63.6	0.0011	3.615-7	0.562	5.327
		227.1	0.0022			
		290.7	0.0040			
		165.2	0.0002			
182Re	2.7d	31.7	0.0043	3.076-4	3.512	0.853
		39.1	0.0030			
		42.7	0.0028			
		58.0	0.4990			
		59.3	0.8678			
		60.6	0.0011			
		65.7	0.0265			
		67.2	0.3690			
		67.7	0.2201			
		84.7	0.0267			
		100.1	0.1453			
		107.2	0.0137			
		108.6	0.0077			
		110.4	0.0010			
		111.1	0.0020			
		113.7	0.0438			
		116.4	0.0049			
		130.8	0.0727			
		131.3	0.0016			
		133.8	0.0246			
		145.4	0.0064			
		147.6	0.0088			
		148.8	0.0171			
		149.4	0.0088			
		150.3	0.0049			
		151.1	0.0043			
		152.4	0.0833			
		153.9	0.0024			
		156.4	0.0741			
		160.1	0.0023			
		169.2	0.1167			
		172.9	0.0348			
		178.4	0.0220			
		179.4	0.0293			
		187.3	0.0031			
		188.5	0.0013			
		189.6	0.0038			
		191.4	0.0769			
		198.4	0.0408			
		203.3	0.0045			
		206.0	0.0049			
		208.2	0.0060			
		209.4	0.0047			
		214.3	0.0107			
		215.7	0.0075			
		217.5	0.0318			
		221.6	0.0620			
		222.1	0.0833			
		226.2	0.0325			
		229.3	0.2500			
		247.4	0.0489			
		256.4	0.1004			
		264.1	0.0376			
		276.3	0.0902			
		281.4	0.0579			
		286.6	0.0752			
		295.7	0.0019			
		300.0	0.0122			
		300.5	0.0165			
		313.9	0.0060			
		323.4	0.0190			
		339.1	0.0560			
		342.0	0.0103			
		345.4	0.0047			
		351.1	0.1032			
		357.1	0.0051			
		928.0	0.0036			
		943.0	0.0022			
		959.7	0.0019			
		1002.0	0.0242			
		1044.0	0.0028			
		1076.0	0.1019			
		1088.0	0.0019			
		1113.0	0.0457			
		1121.0	0.2137			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1157.0	0.0038			
		1158.0	0.0085			
		1181.0	0.0054			
		1189.0	0.0876			
		1221.0	0.1652			
		1224.0	0.0019			
		1231.0	0.1440			
		1257.0	0.0103			
		1274.0	0.0092			
		1289.0	0.0074			
		1292.0	0.0023			
		1294.0	0.0158			
		1331.0	0.0035			
		1343.0	0.0269			
		1374.0	0.0029			
		1387.0	0.0026			
		1410.0	0.0028			
		1427.0	0.0945			
		1439.0	0.0016			
		1074.0	0.0040			
182mRe	12.7h	31.7	0.0073	1.990−4	3.936	0.761
		42.7	0.0023			
		58.0	0.3004			
		59.3	0.5225			
		65.7	0.0025			
		67.2	0.2222			
		67.7	0.3924			
		84.7	0.0265			
		100.1	0.1435			
		113.7	0.0041			
		116.4	0.0035			
		152.4	0.0670			
		156.4	0.0041			
		179.4	0.0024			
		198.4	0.0018			
		222.1	0.0067			
		229.3	0.0214			
		264.1	0.0026			
		470.3	0.0198			
		536.0	0.0021			
		555.0	0.0011			
		598.6	0.0040			
		649.7	0.0035			
		734.5	0.0038			
		787.1	0.0026			
		800.0	0.0015			
		810.2	0.0038			
		836.0	0.0048			
		894.9	0.0210			
		900.8	0.0035			
		928.0	0.0051			
		959.7	0.0038			
		1002.0	0.0022			
		1044.0	0.0018			
		1121.0	0.3190			
		1157.0	0.0070			
		1181.0	0.0022			
		1189.0	0.1515			
		1221.0	0.2466			
		1231.0	0.0131			
		1257.0	0.0140			
		1274.0	0.0054			
		1289.0	0.0121			
		1294.0	0.0018			
		1374.0	0.0019			
		1771.0	0.0029			
		1819.0	0.0011			
		1871.0	0.0029			
		1957.0	0.0046			
		2016.0	0.0078			
		2047.0	0.0012			
		2057.0	0.0083			
		2208.0	0.0010			
		1790.0	0.0089			
		511.0	0.0379			
183Re	70d	46.5	0.0798	4.257−5	0.176	17.021
		52.6	0.0222			
		58.0	0.3424			
		59.3	0.5954			
		67.2	0.2532			
		82.9	0.0025			
		84.7	0.0088			
		99.1	0.0269			
		107.9	0.0218			
		109.7	0.0290			
		144.1	0.0012			
		160.5	0.0059			
		161.3	0.0036			
		162.3	0.2336			
		192.6	0.0026			
		205.1	0.0011			
		208.8	0.0298			
		209.9	0.0026			
		244.3	0.0041			
		245.2	0.0026			
		246.1	0.0132			
		291.7	0.0317			
		313.0	0.0042			
		354.0	0.0054			
		254.0	0.0019			
184Re	38.0d	58.0	0.2548	1.572−4	3.112	0.963
		59.3	0.4431			
		67.2	0.1884			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		111.2	0.1714			
		252.8	0.0302			
		539.2	0.0033			
		641.9	0.0194			
		769.8	0.0067			
		792.1	0.3746			
		894.8	0.1559			
		903.3	0.3788			
		1023.0	0.0052			
		1275.0	0.0012			
		1386.0	0.0010			
		787.3	0.0029			
184mRe	169.0d	59.7	0.1407	7.671−5	2.473	1.211
		61.1	0.2438			
		69.3	0.1042			
		104.7	0.1328			
		87.3	0.0001			
		55.3	0.0236			
		58.0	0.0851			
		59.3	0.1480			
		63.7	0.0038			
		67.2	0.0629			
		87.5	0.0024			
		91.3	0.0026			
		111.2	0.0592			
		124.1	0.0015			
		161.3	0.0664			
		215.3	0.0284			
		216.5	0.0963			
		226.8	0.0151			
		252.8	0.1091			
		318.0	0.0588			
		384.2	0.0320			
		536.7	0.0337			
		641.9	0.0035			
		769.8	0.0024			
		792.1	0.0377			
		857.2	0.0017			
		894.8	0.0281			
		903.3	0.0382			
		920.9	0.0831			
		1023.0	0.0018			
		1110.0	0.0060			
		1174.0	0.0124			
		647.4	0.0027			
186Re	3.8d	58.0	0.0160	4.909−6	0.105	28.583
		59.3	0.0278			
		67.2	0.0118			
		122.3	0.0070			
		61.5	0.0116			
		63.0	0.0200			
		71.4	0.0086			
		137.2	0.0952			
		702.2	0.0006			
188Re	17.0h	61.5	0.0136	1.093−5	2.261	1.325
		63.0	0.0235			
		71.4	0.0101			
		155.0	0.1497			
		478.0	0.0105			
		633.1	0.0126			
		635.0	0.0015			
		672.5	0.0011			
		829.5	0.0041			
		931.3	0.0056			
		1134.0	0.0072			
185Os	93.6d	59.7	0.2099	1.310−4	2.457	1.219
		61.1	0.3638			
		69.3	0.1555			
		71.3	0.0025			
		125.4	0.0035			
		162.9	0.0056			
		234.2	0.0041			
		592.1	0.0131			
		646.1	0.8020			
		717.4	0.0408			
		874.8	0.0654			
		880.3	0.0495			
		910.0	0.0006			
190mOs	9.9m	61.5	0.0570	2.995−4	1.777	1.686
		63.0	0.0984			
		71.4	0.0423			
		186.7	0.7020			
		361.1	0.9488			
		502.6	0.9778			
		616.1	0.9862			
		38.9	0.0010			
191Os	15.4d	63.3	0.1601	1.837−5	0.086	34.767
		64.9	0.2756			
		73.6	0.1190			
		129.4	0.2590			
		73.2	0.0004			
191mOs	13.0h	61.5	0.0199	1.449−6	0.073	40.828
		63.0	0.0345			
		71.4	0.0148			
		74.4	0.0006			
193Os	1.2d	63.3	0.0357	1.412−5	1.221	2.454
		64.9	0.0614			
		73.0	0.0348			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		73.6	0.0265			
		96.8	0.0010			
		107.0	0.0064			
		138.9	0.0432			
		180.0	0.0018			
		181.8	0.0020			
		219.1	0.0028			
		251.6	0.0022			
		280.4	0.0126			
		288.8	0.0014			
		298.8	0.0019			
		321.6	0.0129			
		361.8	0.0030			
		387.5	0.0128			
		420.3	0.0017			
		460.5	0.0400			
		484.3	0.0017			
		557.4	0.0132			
		559.3	0.0049			
		400.7	0.0067			
190Ir	11.8d	61.5	0.2471	2.666−4	1.895	1.581
		63.0	0.4267			
		71.4	0.1833			
		186.7	0.4968			
		190.5	0.0013			
		196.9	0.0324			
		198.1	0.0184			
		199.3	0.0022			
		207.9	0.0032			
		207.9	0.0112			
		223.8	0.0354			
		235.5	0.0040			
		248.2	0.0011			
		282.9	0.0045			
		288.2	0.0156			
		294.7	0.0616			
		361.1	0.1233			
		371.2	0.2160			
		380.0	0.0192			
		397.4	0.0620			
		407.2	0.0432			
		407.2	0.2268			
		420.6	0.0156			
		431.6	0.0259			
		447.8	0.0242			
		477.8	0.0173			
		485.2	0.0069			
		490.8	0.0074			
		502.6	0.0119			
		518.5	0.3218			
		558.0	0.2851			
		569.3	0.2700			
		605.1	0.3780			
		615.4	0.0044			
		628.4	0.0071			
		630.9	0.0279			
		631.0	0.0080			
		656.0	0.0110			
		690.0	0.0027			
		726.2	0.0359			
		740.2	0.0018			
		768.6	0.0210			
		821.8	0.0031			
		828.0	0.0054			
		829.0	0.0328			
		839.1	0.0108			
		916.8	0.0012			
		1036.0	0.0229			
		1134.0	0.0041			
		1147.0	0.0013			
		1200.0	0.0042			
		1324.0	0.0046			
		1387.0	0.0015			
		1397.0	0.0014			
		823.7	0.0079			
190mIr	1.2h	26.3	0.0000	6.12−11	0.007	456.9
190mIr	3.2h	63.3	0.0031	1.499−5	0.073	40.962
		64.9	0.0053			
		73.6	0.0023			
		148.7	0.0001			
		61.5	0.2051			
		63.0	0.3542			
		71.4	0.1521			
192Ir	74.0d	61.5	0.0113	1.597−4	1.284	2.334
		63.0	0.0195			
		71.4	0.0084			
		201.3	0.0047			
		205.8	0.0329			
		283.3	0.0026			
		374.5	0.0073			
		484.6	0.0316			
		489.1	0.0040			
		423.1	0.0008			
		65.1	0.0264			
		66.8	0.0452			
		75.7	0.0197			
		136.3	0.0018			
		296.0	0.2901			
		308.5	0.2968			
		316.5	0.8285			
		416.5	0.0066			
		468.1	0.4805			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		588.6	0.0457			
		604.4	0.0820			
		612.5	0.0534			
		884.5	0.0030			
		871.7	0.0010			
193mIr	11.9d	63.3	0.0014	1.017−7	0.080	37.618
		64.9	0.0024			
		73.6	0.0010			
		80.3	0.0000			
194Ir	19.1h	65.1	0.0023	1.672−5	2.400	1.248
		66.8	0.0039			
		75.7	0.0017			
		293.5	0.0255			
		300.7	0.0035			
		328.5	0.1310			
		589.2	0.0014			
		622.0	0.0034			
		645.2	0.0117			
		938.7	0.0060			
		1151.0	0.0060			
		1184.0	0.0030			
		1469.0	0.0019			
		1093.0	0.0088			
194mIr	171.0d	65.1	0.0481	4.355−4	1.886	1.589
		66.8	0.0826			
		75.7	0.0359			
		111.7	0.0890			
		189.1	0.0160			
		324.0	0.0200			
		328.5	0.9290			
		338.8	0.5500			
		390.8	0.3510			
		482.9	0.9700			
		562.4	0.3470			
		562.4	0.3520			
		600.5	0.6200			
		687.8	0.5900			
		1012.0	0.0360			
		356.8	0.0019			
191Pt	2.7d	63.3	0.3792	6.569−5	1.203	2.491
		64.9	0.6526			
		73.6	0.2817			
		82.4	0.0502			
		96.5	0.0338			
		129.4	0.0298			
		172.2	0.0334			
		179.0	0.0102			
		187.7	0.0042			
		209.0	0.0014			
		219.6	0.0082			
		221.7	0.0012			
		223.7	0.0011			
		267.9	0.0078			
		268.7	0.0165			
		351.2	0.0346			
		359.9	0.0600			
		409.4	0.0800			
		456.5	0.0336			
		538.9	0.1368			
		541.6	0.0037			
		576.5	0.0012			
		587.9	0.0014			
		624.1	0.0141			
		404.2	0.0079			
193mPt	4.3d	12.6	0.0074	4.649−6	0.074	40.629
		65.1	0.0431			
		66.8	0.0739			
		75.7	0.0322			
		135.5	0.0011			
195mPt	4.0d	30.9	0.0227	2.029−5	0.082	36.632
		65.1	0.2235			
		66.8	0.3834			
		75.7	0.1669			
		98.9	0.1134			
		129.8	0.0281			
		174.4	0.0021			
197Pt	18.3h	67.0	0.0093	5.647−6	0.170	17.673
		68.8	0.0160			
		77.4	0.1700			
		78.0	0.0070			
		191.4	0.0349			
		268.7	0.0027			
197mPt	1.6h	52.9	0.0107	1.931−5	0.654	4.581
		65.1	0.1353			
		66.8	0.2321			
		75.7	0.1010			
		346.5	0.1141			
		67.0	0.0023			
		68.8	0.0040			
		78.0	0.0017			
		130.4	0.0011			
		279.0	0.0235			
		194.6	0.0004			
194Au	1.6d	65.1	0.2278	1.776−4	3.969	0.755
		66.8	0.3907			
		75.7	0.1701			
		164.0	0.0013			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		203.0	0.0034			
		290.8	0.0011			
		293.5	0.1116			
		300.7	0.0092			
		318.1	0.0033			
		328.5	0.6380			
		364.9	0.0154			
		449.4	0.0017			
		482.9	0.0119			
		528.8	0.0172			
		530.2	0.0056			
		589.2	0.0026			
		593.3	0.0035			
		594.3	0.0017			
		607.5	0.0032			
		621.3	0.0080			
		622.0	0.0147			
		645.2	0.0231			
		668.3	0.0012			
		703.5	0.0045			
		736.2	0.0013			
		810.6	0.0020			
		843.9	0.0013			
		855.8	0.0011			
		890.0	0.0017			
		925.3	0.0031			
		938.7	0.0119			
		948.3	0.0237			
		1000.0	0.0022			
		1039.0	0.0033			
		1049.0	0.0090			
		1104.0	0.0216			
		1120.0	0.0013			
		1151.0	0.0146			
		1157.0	0.0045			
		1175.0	0.0210			
		1184.0	0.0066			
		1219.0	0.0119			
		1292.0	0.0011			
		1294.0	0.0018			
		1302.0	0.0028			
		1308.0	0.0016			
		1340.0	0.0031			
		1342.0	0.0125			
		1422.0	0.0034			
		1431.0	0.0015			
		1442.0	0.0019			
		1450.0	0.0034			
		1463.0	0.0077			
		1469.0	0.0676			
		1487.0	0.0014			
		1492.0	0.0019			
		1500.0	0.0040			
		1563.0	0.0033			
		1592.0	0.0109			
		1594.0	0.0064			
		1596.0	0.0185			
		1602.0	0.0026			
		1618.0	0.0022			
		1622.0	0.0020			
		1633.0	0.0025			
		1671.0	0.0018			
		1676.0	0.0014			
		1690.0	0.0018			
		1715.0	0.0071			
		1735.0	0.0030			
		1785.0	0.0041			
		1797.0	0.0061			
		1803.0	0.0019			
		1806.0	0.0019			
		1829.0	0.0025			
		1835.0	0.0042			
		1886.0	0.0185			
		1887.0	0.0160			
		1911.0	0.0013			
		1924.0	0.0210			
		1959.0	0.0017			
		1970.0	0.0046			
		2044.0	0.0383			
		2114.0	0.0028			
		2215.0	0.0018			
		2312.0	0.0018			
		1020.0	0.0233			
		511.0	0.0332			
195Au	183d	30.9	0.0075	2.362−5	0.083	36.236
		65.1	0.2895			
		66.8	0.4966			
		75.7	0.2162			
		98.9	0.1086			
		129.8	0.0081			
		206.1	0.0002			
195mAu	30.6s	61.5	0.0016	4.132−5	0.485	6.174
		67.0	0.0668			
		68.8	0.1142			
		78.0	0.0500			
		200.4	0.0156			
		261.7	0.6820			
		196.7	0.0007			
196Au	6.2d	65.1	0.2199	9.922−5	0.919	3.261
		66.8	0.3773			
		75.7	0.1642			
		333.0	0.2307			
		355.7	0.8772			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1091.0	0.0015			
		543.0	0.0017			
		68.9	0.0005			
		70.8	0.0009			
		80.3	0.0004			
		426.1	0.0666			
198Au	2.7d	68.9	0.0081	7.881−5	1.293	2.317
		70.8	0.0137			
		80.3	0.0060			
		411.8	0.9551			
		675.9	0.0106			
		1088.0	0.0023			
199Au	3.1d	49.8	0.0033	1.866−5	0.186	16.121
		68.9	0.0484			
		70.8	0.0824			
		80.3	0.0362			
		158.4	0.3680			
		208.2	0.0835			
197Hg	2.7d	67.0	0.2069	1.874−5	0.100	29.898
		68.8	0.3536			
		77.4	0.1850			
		78.0	0.1547			
		191.4	0.0050			
		268.7	0.0004			
197mHg	23.8h	68.9	0.0977	2.059−5	0.206	14.537
		70.8	0.1661			
		80.3	0.0731			
		133.9	0.3404			
		165.0	0.0027			
		67.0	0.0191			
		68.8	0.0326			
		78.0	0.0143			
		130.4	0.0023			
		279.0	0.0498			
		194.6	0.0010			
203Hg	46.6d	10.3	0.0722	6.841−5	0.499	6.007
		70.8	0.0475			
		72.9	0.0804			
		82.6	0.0356			
		279.2	0.7730			
200Tl	1.1d	68.9	0.2362	2.249−4	3.380	0.886
		70.8	0.4018			
		80.3	0.1767			
		116.5	0.0011			
		140.9	0.0017			
		151.9	0.0015			
		164.5	0.0021			
		252.0	0.0038			
		289.4	0.0052			
		309.2	0.0026			
		367.9	0.8730			
		387.4	0.0016			
		476.8	0.0032			
		521.4	0.0025			
		579.3	0.1379			
		591.7	0.0029			
		612.1	0.0024			
		628.8	0.0100			
		661.4	0.0228			
		688.9	0.0011			
		701.6	0.0129			
		711.7	0.0027			
		783.7	0.0057			
		787.1	0.0103			
		828.3	0.1083			
		886.2	0.0202			
		898.6	0.0062			
		1147.0	0.0012			
		1167.0	0.0010			
		1181.0	0.0011			
		1202.0	0.0011			
		1206.0	0.2994			
		1225.0	0.0336			
		1254.0	0.0093			
		1263.0	0.0079			
		1274.0	0.0332			
		1291.0	0.0060			
		1350.0	0.0015			
		1363.0	0.0341			
		1367.0	0.0087			
		1408.0	0.0145			
		1478.0	0.0015			
		1515.0	0.0402			
		1571.0	0.0027			
		1604.0	0.0117			
		1718.0	0.0033			
		1759.0	0.0018			
		1906.0	0.0011			
		771.5	0.0312			
		511.0	0.0075			
201Tl	3.0d	30.6	0.0022	2.372−5	0.114	26.211
		32.2	0.0022			
		68.9	0.2736			
		70.8	0.4652			
		80.3	0.2046			
		135.3	0.0265			
		165.9	0.0016			
		167.4	0.1000			

Nuclide	Half-life	E	Prob.	Γ	T	μ
202Tl	12.2d	68.9	0.2284	9.437−5	1.319	2.272
		70.8	0.3884			
		80.3	0.1708			
		439.6	0.9150			
		520.1	0.0091			
		959.7	0.0012			
204Tl	3.8y	68.9	0.0042	3.014−7	0.100	30.056
		70.8	0.0072			
		80.3	0.0032			
207Tl	4.8m	897.8	0.0024	3.523−7	3.442	0.870
		459.1	0.0000			
208Tl	3.1m	10.6	0.0289	4.497−4	5.397	0.555
		72.8	0.0203			
		75.0	0.0343			
		84.9	0.0152			
		211.4	0.0017			
		233.4	0.0031			
		252.6	0.0080			
		277.4	0.0679			
		510.8	0.2156			
		583.1	0.8423			
		722.0	0.0020			
		763.1	0.0164			
		860.4	0.1245			
		927.6	0.0012			
		982.7	0.0020			
		1094.0	0.0037			
		2615.0	0.9980			
		840.4	0.0036			
209Tl	2.2m	10.6	0.0872	3.482−4	4.248	0.705
		72.8	0.0588			
		75.0	0.0993			
		84.9	0.0441			
		117.2	0.7700			
		465.1	0.9658			
		1567.0	0.9969			
210Tl	1.3m	10.6	0.1260	4.575−4	4.057	0.738
		72.8	0.0255			
		75.0	0.0431			
		84.9	0.0191			
		97.0	0.0396			
		298.0	0.7917			
		356.0	0.0396			
		382.0	0.0297			
		480.0	0.0198			
		670.0	0.0198			
		799.7	0.9896			
		860.0	0.0693			
		910.0	0.0297			
		1060.0	0.1187			
		1110.0	0.0693			
		1210.0	0.1682			
		1310.0	0.2078			
		1410.0	0.0495			
		1490.0	0.0198			
		1540.0	0.0198			
		1590.0	0.0198			
		1650.0	0.0198			
		2010.0	0.0693			
		2090.0	0.0495			
		2280.0	0.0297			
		2360.0	0.0792			
		2430.0	0.0891			
203Pb	2.2d	10.3	0.3920	1.828−4	0.343	8.724
		70.8	0.2663			
		72.9	0.4513			
		82.6	0.1995			
		279.2	0.7680			
		401.3	0.0330			
		680.5	0.0067			
204mPb	1.1h	10.6	0.0492	3.649−4	3.167	0.946
		72.8	0.0258			
		75.0	0.0436			
		84.9	0.0194			
		289.3	0.0017			
		374.7	0.9411			
		622.2	0.0022			
		899.2	0.9916			
		911.7	0.9113			
		779.7	0.0006			
205Pb	1.5+7y	10.3	0.2268	6.789−5	0.002	1345.
210Pb	22.3y	10.8	0.2432	6.801−5	0.003	1098.
		46.5	0.0405			
211Pb	36.1m	10.8	0.0028	9.822−6	2.474	1.211
		74.8	0.0012			
		77.1	0.0021			
		87.3	0.0009			
		404.8	0.0294			
		427.1	0.0132			
		704.6	0.0037			
		766.5	0.0054			
		832.0	0.0286			
		517.6	0.0047			
212Pb	10.6h	10.8	0.1549	7.389−5	0.270	11.112
		74.8	0.1069			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		77.1	0.1800			
		87.3	0.0803			
		115.2	0.0060			
		238.6	0.4465			
		300.1	0.0341			
		176.7	0.0005			
214Pb	26.8m	10.8	0.1350	8.741-5	0.744	4.029
		53.2	0.0110			
		74.8	0.0621			
		77.1	0.1046			
		87.3	0.0467			
		242.0	0.0749			
		258.8	0.0055			
		274.5	0.0033			
		295.2	0.1925			
		351.9	0.3721			
		462.1	0.0017			
		480.4	0.0034			
		487.1	0.0044			
		533.7	0.0019			
		580.2	0.0037			
		785.9	0.0110			
		839.0	0.0059			
		280.7	0.0033			
206Bi	6.2d	10.6	0.4894	6.797-4	3.167	0.946
		72.8	0.3205			
		75.0	0.5415			
		84.9	0.2405			
		184.0	0.1582			
		234.3	0.0024			
		262.7	0.0302			
		313.7	0.0036			
		343.5	0.2344			
		386.2	0.0052			
		398.0	0.1074			
		452.8	0.0016			
		497.1	0.1531			
		516.2	0.4074			
		537.5	0.3046			
		576.4	0.0011			
		582.0	0.0048			
		620.5	0.0576			
		632.3	0.0447			
		657.2	0.0191			
		739.2	0.0016			
		755.0	0.0053			
		784.6	0.0054			
		803.1	0.9889			
		841.3	0.0019			
		881.0	0.6616			
		895.1	0.1565			
		1019.0	0.0759			
		1098.0	0.1350			
		1142.0	0.0011			
		1195.0	0.0028			
		1203.0	0.0010			
		1332.0	0.0028			
		1405.0	0.0143			
		1496.0	0.0018			
		1560.0	0.0038			
		1565.0	0.0030			
		1595.0	0.0501			
		1719.0	0.3184			
		1844.0	0.0057			
		1879.0	0.0201			
		1904.0	0.0035			
		2600.0	0.0013			
		928.7	0.0124			
207Bi	33.4y	10.6	0.3590	3.590-4	2.952	1.015
		72.8	0.2178			
		75.0	0.3679			
		84.9	0.1634			
		569.7	0.9772			
		897.8	0.0015			
		1064.0	0.7485			
		1442.0	0.0015			
		1770.0	0.0684			
		328.2	0.0000			
208Bi	3.7+5y	10.6	0.3101	4.014-4	5.613	0.534
		72.8	0.1232			
		75.0	0.2080			
		84.9	0.0924			
		2615.0	0.9980			
211Bi	2.1m	10.3	0.0105	1.274-5	0.828	3.617
		70.8	0.0075			
		72.9	0.0127			
		82.6	0.0056			
		351.1	0.1295			
212Bi	1.0h	10.3	0.0769	5.252-5	2.872	1.043
		39.9	0.0102			
		70.8	0.0003			
		72.9	0.0006			
		82.6	0.0002			
		288.1	0.0032			
		328.0	0.0013			
		452.8	0.0035			
		379.5	0.0009			
		11.1	0.0004			
		76.9	0.0004			
		79.3	0.0006			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		89.8	0.0003			
		727.2	0.1183			
		785.5	0.0197			
		893.4	0.0065			
		952.1	0.0031			
		1079.0	0.0095			
		1513.0	0.0056			
		1621.0	0.0275			
		1679.0	0.0012			
		1806.0	0.0020			
		1074.0	0.0003			
213Bi	45.6m	323.8	0.0013	3.140−5	1.430	2.094
		11.1	0.0183			
		76.9	0.0125			
		79.3	0.0210			
		89.8	0.0094			
		292.9	0.0074			
		440.4	0.2797			
		659.8	0.0015			
		807.4	0.0044			
		1100.0	0.0048			
214Bi	19.9m	11.1	0.0052	2.251−4	4.451	0.673
		76.9	0.0036			
		79.3	0.0060			
		89.8	0.0027			
		273.7	0.0018			
		387.0	0.0037			
		389.1	0.0041			
		405.7	0.0017			
		426.5	0.0011			
		454.8	0.0032			
		469.7	0.0013			
		474.4	0.0012			
		609.3	0.4628			
		665.4	0.0157			
		703.1	0.0047			
		719.9	0.0040			
		752.8	0.0013			
		768.4	0.0504			
		786.1	0.0032			
		806.2	0.0123			
		821.2	0.0015			
		904.3	0.0011			
		934.1	0.0321			
		964.1	0.0038			
		1052.0	0.0032			
		1070.0	0.0029			
		1120.0	0.1515			
		1134.0	0.0026			
		1155.0	0.0170			
		1208.0	0.0046			
		1238.0	0.0594			
		1281.0	0.0148			
		1304.0	0.0012			
		1378.0	0.0411			
		1385.0	0.0078			
		1401.0	0.0139			
		1408.0	0.0249			
		1509.0	0.0222			
		1538.0	0.0041			
		1543.0	0.0036			
		1583.0	0.0072			
		1595.0	0.0027			
		1599.0	0.0034			
		1661.0	0.0115			
		1684.0	0.0024			
		1730.0	0.0297			
		1764.0	0.1584			
		1838.0	0.0038			
		1847.0	0.0209			
		1873.0	0.0023			
		1896.0	0.0018			
		2119.0	0.0117			
		2204.0	0.0498			
		2293.0	0.0033			
		2448.0	0.0156			
		1158.0	0.0351			
209Po	102.0y	10.6	0.0004	9.809−7	2.326	1.288
		72.8	0.0004			
		75.0	0.0006			
		84.9	0.0003			
		260.5	0.0026			
		266.1	0.0009			
		10.8	0.0009			
		74.8	0.0006			
		77.1	0.0010			
		87.3	0.0004			
		896.4	0.0025			
210Po	138.4d	803.1	0.0000	1.422−9	3.097	0.967
211Po	0.5s	569.7	0.0054	1.321−6	2.953	1.015
		897.8	0.0052			
		328.2	0.0000			
213Po	4.2−6s	779.0	0.0000	5.136−9	2.990	1.002
214Po	1.6−4s	797.3	0.0001	1.396−8	3.073	0.975
215Po	1.8−3s	438.7	0.0003	2.861−8	1.392	2.152
216Po	0.1s	804.9	0.0000	2.421−9	3.104	0.965

Nuclide	Half-life	E	Prob.	Γ	T	μ
211At	7.2h	685.2	0.0000	6.120−5	0.049	61.112
		11.1	0.1973			
		76.9	0.1270			
		79.3	0.2128			
		89.8	0.0955			
		687.0	0.0025			
217At	0.032s	594.5	0.0004	4.292−8	2.174	1.378
218Rn	0.035s	609.3	0.0012	1.356−7	2.241	1.337
219Rn	4.0s	11.1	0.0104	1.419−5	0.843	3.555
		76.9	0.0053			
		79.3	0.0088			
		89.8	0.0039			
		130.6	0.0012			
		271.2	0.1060			
		401.8	0.0650			
		388.5	0.0020			
220Rn	55.6s	549.7	0.0010	9.607−8	1.953	1.534
222Rn	3.8d	512.0	0.0008	7.280−8	1.772	1.690
221Fr	4.8m	11.4	0.0227	1.193−5	0.260	11.522
		78.9	0.0077			
		81.5	0.0129			
		92.3	0.0058			
		99.5	0.0016			
		217.6	0.1250			
		412.0	0.0010			
		211.0	0.0033			
223Fr	21.8m	12.3	0.3368	8.930−5	0.044	67.594
		20.3	0.0076			
		49.9	0.0076			
		50.1	0.3170			
		68.7	0.0038			
		79.8	0.0761			
		85.4	0.0147			
		88.5	0.0242			
		100.0	0.0111			
		100.4	0.0095			
		134.6	0.0051			
		173.4	0.0013			
		184.8	0.0029			
		205.0	0.0108			
		234.9	0.0282			
		289.5	0.0023			
		319.4	0.0051			
		369.4	0.0010			
		775.3	0.0039			
		482.0	0.0123			
222Ra	38.0s	11.7	0.0011	2.115−6	0.766	3.912
		81.1	0.0005			
		83.8	0.0008			
		94.9	0.0003			
		324.2	0.0277			
		499.1	0.0001			
223Ra	11.4d	11.7	0.2474	8.789−5	0.278	10.794
		80.2	0.0020			
		81.1	0.1487			
		83.8	0.2470			
		94.9	0.1120			
		98.2	0.0045			
		122.3	0.0119			
		144.2	0.0324			
		154.2	0.0558			
		158.6	0.0068			
		179.5	0.0014			
		269.5	0.1360			
		288.2	0.0015			
		323.9	0.0388			
		328.4	0.0020			
		338.3	0.0273			
		342.9	0.0022			
		349.8	0.0034			
		371.7	0.0047			
		445.0	0.0118			
		292.1	0.0135			
224Ra	3.6d	11.7	0.0040	2.967−6	0.369	8.124
		81.1	0.0013			
		83.8	0.0021			
		94.9	0.0009			
		241.0	0.0395			
		465.0	0.0002			
225Ra	14.8d	12.7	0.1576	4.164−5	0.010	304.4
		40.0	0.3100			
226Ra	1600y	11.7	0.0080	3.274−6	0.160	18.693
		81.1	0.0018			
		83.8	0.0030			
		94.9	0.0014			
		186.2	0.0328			
		309.7	0.0001			
225Ac	10.0d	12.0	0.2129	5.172−5	0.006	472.6
		62.9	0.0055			
		73.8	0.0032			
		82.9	0.0015			
		83.2	0.0102			
		86.1	0.0168			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		87.4	0.0029			
		94.9	0.0016			
		97.5	0.0077			
		99.6	0.0065			
		99.8	0.0170			
		108.4	0.0028			
		111.5	0.0032			
		123.8	0.0019			
		138.2	0.0020			
		145.0	0.0013			
		150.1	0.0071			
		154.0	0.0019			
		157.2	0.0031			
		188.0	0.0046			
		195.7	0.0014			
		253.5	0.0010			
		452.4	0.0011			
		165.2	0.0093			
227Ac	21.8y	115.4	0.0010	2.364−6	0.004	690.1
		13.0	0.0115			
		17.4	0.0004			
228Ac	6.1h	13.0	0.3911	2.278−4	3.039	0.986
		57.8	0.0050			
		90.0	0.0213			
		93.3	0.0349			
		99.4	0.0130			
		105.0	0.0161			
		129.1	0.0277			
		146.1	0.0021			
		154.2	0.0094			
		191.2	0.0012			
		199.7	0.0033			
		204.4	0.0016			
		209.3	0.0443			
		210.0	0.0022			
		270.2	0.0360			
		279.0	0.0022			
		321.7	0.0024			
		327.6	0.0321			
		332.4	0.0044			
		338.3	0.1136			
		341.1	0.0042			
		409.5	0.0213			
		440.3	0.0014			
		463.0	0.0443			
		478.2	0.0023			
		503.6	0.0021			
		509.6	0.0047			
		523.0	0.0012			
		546.3	0.0021			
		562.3	0.0094			
		570.7	0.0018			
		572.1	0.0016			
		583.2	0.0014			
		623.8	0.0011			
		701.5	0.0019			
		707.1	0.0015			
		727.0	0.0078			
		755.2	0.0105			
		772.2	0.0155			
		782.0	0.0053			
		794.7	0.0463			
		830.5	0.0059			
		835.5	0.0175			
		840.0	0.0094			
		904.5	0.0083			
		911.1	0.2770			
		944.1	0.0010			
		948.0	0.0012			
		958.5	0.0030			
		964.6	0.0521			
		969.1	0.1662			
		987.8	0.0018			
		1033.0	0.0022			
		1065.0	0.0014			
		1096.0	0.0013			
		1110.0	0.0033			
		1154.0	0.0015			
		1246.0	0.0054			
		1288.0	0.0011			
		1459.0	0.0100			
		1496.0	0.0100			
		1502.0	0.0055			
		1557.0	0.0019			
		1580.0	0.0069			
		1588.0	0.0355			
		1625.0	0.0030			
		1630.0	0.0186			
		1638.0	0.0053			
		1666.0	0.0020			
		1887.0	0.0011			
		947.8	0.0412			
226Th	30.9m	12.3	0.0755	1.818−5	0.022	138.9
		85.4	0.0028			
		88.5	0.0046			
		100.0	0.0021			
		111.1	0.0329			
		131.0	0.0028			
		190.3	0.0011			
		206.2	0.0019			
		242.1	0.0087			
		556.1	0.0000			

Nuclide	Half-life	E	Prob.	Γ	T	μ
227Th	18.7d	12.3	0.4180	1.145−4	0.203	14.730
		20.3	0.0020			
		29.9	0.0010			
		43.7	0.0023			
		49.9	0.0020			
		50.1	0.0840			
		62.2	0.0024			
		79.8	0.0200			
		85.4	0.0141			
		88.5	0.0232			
		94.0	0.0140			
		100.0	0.0106			
		113.1	0.0017			
		113.1	0.0054			
		117.2	0.0018			
		141.2	0.0014			
		204.3	0.0023			
		205.0	0.0017			
		206.0	0.0026			
		210.6	0.0126			
		234.9	0.0046			
		236.0	0.1150			
		250.1	0.0049			
		252.5	0.0011			
		254.7	0.0091			
		256.2	0.0630			
		262.9	0.0010			
		273.0	0.0049			
		281.3	0.0017			
		286.1	0.0160			
		296.6	0.0042			
		299.8	0.0184			
		300.3	0.0028			
		304.4	0.0135			
		312.6	0.0043			
		314.8	0.0042			
		329.7	0.0290			
		334.2	0.0115			
		342.4	0.0034			
		350.5	0.0012			
		185.0	0.0173			
228Th	1.9y	12.3	0.0956	2.142−5	0.004	731.9
		84.4	0.0121			
		131.6	0.0012			
		216.0	0.0024			
		172.5	0.0011			
229Th	7340.0y	12.3	0.8105	1.989−4	0.029	103.7
		17.4	0.0017			
		31.3	0.0408			
		42.8	0.0016			
		56.6	0.0033			
		68.2	0.0010			
		68.9	0.0011			
		75.2	0.0052			
		85.4	0.1647			
		86.3	0.0038			
		86.4	0.0306			
		88.5	0.2714			
		100.0	0.1243			
		107.2	0.0084			
		124.5	0.0122			
		124.7	0.0061			
		132.0	0.0033			
		137.0	0.0163			
		142.9	0.0043			
		148.3	0.0139			
		154.4	0.0066			
		156.5	0.0112			
		172.9	0.0022			
		179.8	0.0051			
		184.0	0.0023			
		193.6	0.0459			
		211.0	0.0326			
		218.1	0.0014			
		130.8	0.0007			
230Th	7.7+4y	12.3	0.0843	1.861−5	0.004	815.2
		67.7	0.0037			
		168.1	0.0007			
231Th	1.1d	13.3	0.7077	1.473−4	0.004	679.1
		17.2	0.0019			
		25.6	0.1465			
		58.6	0.0048			
		72.8	0.0025			
		81.2	0.0088			
		82.1	0.0040			
		84.2	0.0644			
		90.0	0.0093			
		92.3	0.0035			
		95.9	0.0057			
		99.3	0.0012			
		102.3	0.0041			
		108.0	0.0026			
		163.1	0.0015			
		114.3	0.0057			
232Th	1.4+10y	12.3	0.0839	1.848−5	0.004	828.7
		59.0	0.0019			
		125.0	0.0004			
233Th	22.3m	13.3	0.0956	2.586−5	0.812	3.689
		29.4	0.0250			
		86.5	0.0270			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		88.0	0.0030			
		92.3	0.0023			
		94.7	0.0080			
		95.9	0.0038			
		108.0	0.0018			
		162.5	0.0017			
		162.5	0.0015			
		169.2	0.0034			
		170.7	0.0013			
		190.5	0.0013			
		195.1	0.0016			
		359.9	0.0012			
		441.0	0.0023			
		447.7	0.0015			
		459.2	0.0140			
		490.8	0.0017			
		499.0	0.0021			
		595.2	0.0016			
		669.8	0.0068			
		764.4	0.0012			
		890.1	0.0014			
		484.7	0.0188			
234Th	24.1d	13.3	0.0957	2.038−5	0.020	148.5
		63.3	0.0381			
		92.4	0.0273			
		92.8	0.0269			
		112.8	0.0024			
		76.8	0.0013			
230Pa	17.4d	13.0	0.5974	2.386−4	2.266	1.322
		53.2	0.0024			
		90.0	0.1877			
		93.3	0.3068			
		105.0	0.1419			
		120.9	0.0034			
		316.8	0.0016			
		380.2	0.0030			
		397.8	0.0185			
		400.0	0.0062			
		440.8	0.0011			
		443.8	0.0543			
		454.9	0.0619			
		463.6	0.0081			
		508.0	0.0022			
		508.2	0.0353			
		518.5	0.0195			
		556.0	0.0020			
		571.1	0.0107			
		581.8	0.0013			
		619.7	0.0016			
		728.2	0.0187			
		781.4	0.0147			
		898.6	0.0576			
		918.5	0.0814			
		952.0	0.2878			
		953.0	0.0016			
		956.3	0.0157			
		959.3	0.0049			
		1010.0	0.0107			
		1026.0	0.0144			
		1075.0	0.0074			
		537.2	0.0092			
		13.6	0.0382			
		314.8	0.0011			
		297.6	0.0017			
231Pa	3.3+4y	12.7	0.4321	1.011−4	0.023	131.7
		18.9	0.0035			
		27.4	0.0930			
		38.2	0.0015			
		46.4	0.0021			
		87.7	0.0062			
		90.9	0.0102			
		102.0	0.0047			
		255.8	0.0010			
		260.2	0.0017			
		283.7	0.0160			
		300.1	0.0230			
		302.7	0.0230			
		330.1	0.0130			
		340.8	0.0017			
		357.2	0.0017			
		165.5	0.0145			
233Pa	27.0d	13.6	0.4892	1.335−4	0.426	7.024
		75.3	0.0126			
		86.6	0.0189			
		94.7	0.1084			
		98.4	0.1757			
		103.9	0.0074			
		111.0	0.0818			
		271.5	0.0030			
		300.1	0.0664			
		312.0	0.3860			
		340.5	0.0452			
		375.5	0.0062			
		398.6	0.0127			
		415.8	0.0162			
		120.5	0.0021			
234Pa	6.7h	13.6	1.1360	5.348−4	2.705	1.107
		43.5	0.0012			
		63.0	0.0326			
		69.9	0.0023			
		79.7	0.0012			
		94.7	0.1570			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		98.4	0.2544			
		99.9	0.0490			
		103.4	0.0012			
		111.0	0.1185			
		125.4	0.0102			
		131.2	0.2040			
		134.4	0.0021			
		137.7	0.0015			
		140.3	0.0092			
		144.0	0.0036			
		150.2	0.0020			
		152.7	0.0683			
		159.1	0.0071			
		170.7	0.0051			
		174.6	0.0020			
		186.0	0.0204			
		193.6	0.0061			
		199.7	0.0049			
		201.0	0.0112			
		203.0	0.0122			
		219.8	0.0020			
		226.4	0.0602			
		227.2	0.0561			
		245.2	0.0092			
		248.9	0.0286			
		267.1	0.0017			
		272.1	0.0102			
		275.5	0.0027			
		286.1	0.0014			
		289.6	0.0011			
		293.7	0.0398			
		309.6	0.0010			
		312.5	0.0031			
		316.3	0.0012			
		320.7	0.0012			
		328.0	0.0031			
		330.6	0.0061			
		351.9	0.0061			
		369.8	0.0296			
		372.4	0.0133			
		409.8	0.0041			
		416.3	0.0010			
		426.8	0.0061			
		446.5	0.0012			
		458.8	0.0153			
		461.8	0.0016			
		467.5	0.0041			
		472.1	0.0024			
		473.5	0.0018			
		478.7	0.0031			
		480.4	0.0041			
		482.5	0.0031			
		498.9	0.0010			
		506.8	0.0163			
		513.7	0.0133			
		520.2	0.0061			
		521.0	0.0092			
		528.0	0.0061			
		533.2	0.0020			
		537.1	0.0016			
		557.0	0.0027			
		565.9	0.0143			
		568.7	0.0306			
		569.5	0.1091			
		574.0	0.0204			
		585.8	0.0015			
		596.6	0.0051			
		602.8	0.0092			
		611.5	0.0082			
		616.2	0.0020			
		623.6	0.0082			
		627.5	0.0082			
		630.6	0.0041			
		634.5	0.0031			
		639.7	0.0020			
		643.2	0.0020			
		646.0	0.0031			
		653.7	0.0092			
		655.0	0.0061			
		658.0	0.0092			
		660.6	0.0031			
		664.8	0.0133			
		666.7	0.0163			
		669.9	0.0143			
		683.3	0.0024			
		687.0	0.0029			
		692.7	0.0153			
		699.0	0.0469			
		706.1	0.0316			
		711.2	0.0020			
		713.8	0.0016			
		733.0	0.0877			
		738.0	0.0102			
		742.8	0.0245			
		746.5	0.0013			
		755.6	0.0143			
		760.0	0.0016			
		766.4	0.0031			
		768.7	0.0057			
		777.9	0.0020			
		780.7	0.0112			
		783.1	0.0051			
		786.3	0.0143			
		793.6	0.0153			
		796.3	0.0388			
		804.3	0.0041			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		805.6	0.0337			
		812.5	0.0051			
		819.6	0.0265			
		826.3	0.0408			
		831.6	0.0561			
		841.9	0.0014			
		844.0	0.0051			
		851.7	0.0012			
		872.9	0.0012			
		876.4	0.0408			
		880.5	0.0102			
		880.5	0.1224			
		883.2	0.1224			
		899.0	0.0418			
		904.4	0.0051			
		920.0	0.0041			
		925.0	0.0296			
		926.0	0.1122			
		926.7	0.0918			
		946.0	0.1224			
		949.0	0.0816			
		960.0	0.0010			
		966.0	0.0061			
		978.8	0.0143			
		980.5	0.0306			
		980.5	0.0204			
		984.0	0.0194			
		1023.0	0.0061			
		1028.0	0.0082			
		1045.0	0.0051			
		1075.0	0.0026			
		1083.0	0.0076			
		1108.0	0.0031			
		1122.0	0.0051			
		1126.0	0.0082			
		1153.0	0.0031			
		1171.0	0.0024			
		1208.0	0.0031			
		1217.0	0.0038			
		1229.0	0.0031			
		1241.0	0.0051			
		1251.0	0.0031			
		1277.0	0.0020			
		1293.0	0.0061			
		1353.0	0.0173			
		1358.0	0.0012			
		1394.0	0.0306			
		1400.0	0.0023			
		1427.0	0.0020			
		1446.0	0.0041			
		1453.0	0.0102			
		1460.0	0.0031			
		1494.0	0.0020			
		1516.0	0.0041			
		1549.0	0.0010			
		1580.0	0.0017			
		1585.0	0.0026			
		1594.0	0.0061			
		1628.0	0.0015			
		1638.0	0.0041			
		1656.0	0.0015			
		1668.0	0.0122			
		1686.0	0.0051			
		1695.0	0.0122			
		1700.0	0.0015			
		1738.0	0.0010			
		1742.0	0.0010			
		1756.0	0.0026			
		1772.0	0.0010			
		1797.0	0.0031			
		1890.0	0.0019			
		1897.0	0.0015			
		1905.0	0.0029			
		1926.0	0.0051			
		955.6	0.0101			
	234mPa	1.2m	13.3	0.0006	2.776-6	3.062	0.978
			73.9	0.0001			
			13.6	0.0044			
			94.7	0.0012			
			98.4	0.0019			
			111.0	0.0009			
			766.4	0.0021			
			1001.0	0.0059			
			926.2	0.0037			
	230U	20.8d	13.0	0.1223	2.463-5	0.004	683.5
			72.2	0.0060			
			154.2	0.0013			
			230.4	0.0012			
			169.9	0.0008			
	231U	4.2d	13.3	0.9894	2.120-4	0.010	293.4
			25.6	0.1200			
			58.6	0.0044			
			84.2	0.0700			
			92.3	0.1730			
			95.9	0.2818			
			108.0	0.1305			
			217.9	0.0080			
			236.0	0.0018			
			178.4	0.0022			
	232U	72y	13.0	0.1202	2.403-5	0.004	716.7
			57.8	0.0020			
			142.0	0.0007			

Nuclide	Half-life	E	Prob.	Γ	T	μ
233U	1.59+5y	13.0	0.0392	7.866−6	0.004	705.0
		114.5	0.0018			
234U	2.44+5y	13.0	0.1050	2.097−5	0.004	720.7
		53.2	0.0012			
		121.4	0.0004			
235U	7.04+8y	13.0	0.3091	9.159−5	0.132	22.675
		72.7	0.0011			
		90.0	0.0273			
		93.3	0.0446			
		105.0	0.0206			
		109.1	0.0150			
		120.0	0.0015			
		140.8	0.0022			
		143.8	0.1050			
		163.3	0.0470			
		182.7	0.0040			
		183.7	0.5400			
		194.9	0.0059			
		202.1	0.0100			
		205.3	0.0470			
		221.4	0.0010			
		190.3	0.0092			
236U	2.34+7y	13.0	0.0998	1.992−5	0.004	722.4
		68.2	0.0011			
237U	6.7d	13.8	0.0010	1.589−4	0.055	54.239
		13.9	0.7114			
		26.3	0.0228			
		33.2	0.0011			
		51.0	0.0021			
		59.5	0.3402			
		64.8	0.0118			
		97.1	0.1629			
		101.1	0.2632			
		114.0	0.1231			
		164.6	0.0186			
		208.0	0.2202			
		267.5	0.0072			
		332.4	0.0122			
		370.9	0.0011			
		262.9	0.0025			
238U	4.47+9y	13.0	0.0883	1.763−5	0.004	722.5
		66.4	0.0010			
239U	23.4m	13.9	0.1326	3.629−5	0.124	24.144
		43.5	0.0427			
		74.7	0.4800			
		117.7	0.0014			
		662.2	0.0018			
		748.1	0.0010			
		819.2	0.0014			
		844.1	0.0016			
		611.2	0.0092			
240U	14.1h	13.9	0.4309	7.686−5	0.003	921.3
		44.1	0.0165			
235Np	1.1y	13.6	0.3766	6.979−5	0.004	840.5
		94.7	0.0051			
		98.4	0.0083			
		111.0	0.0039			
236Np	1.15+5y	13.6	1.3100	2.833−4	0.019	161.6
		45.2	0.0015			
		94.7	0.2070			
		98.4	0.3355			
		104.2	0.0747			
		111.0	0.1562			
		160.3	0.2760			
		14.3	0.0884			
		99.6	0.0008			
		100.0	0.0052			
		103.8	0.0013			
		117.0	0.0006			
		160.0	0.0142			
		44.6	0.0001			
236mNp	22.5h	13.6	0.2559	6.389−5	0.043	69.991
		94.7	0.1126			
		98.4	0.1824			
		111.0	0.0849			
		642.3	0.0138			
		687.5	0.0037			
		304.5	0.0003			
		14.3	0.0363			
		44.6	0.0001			
237Np	2.1+6y	13.3	0.5919	1.251−4	0.006	512.0
		29.4	0.1399			
		46.5	0.0014			
		57.1	0.0042			
		86.5	0.1260			
		88.0	0.0016			
		92.3	0.0158			
		94.7	0.0083			
		95.9	0.0258			
		108.0	0.0119			
		117.7	0.0017			
		143.2	0.0042			
		151.4	0.0025			
		195.1	0.0021			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		212.4	0.0016			
		163.6	0.0105			
238Np	2.1d	14.3	0.3739	1.497–4	3.104	0.965
		44.1	0.0010			
		99.6	0.0011			
		101.9	0.0021			
		103.8	0.0018			
		117.0	0.0008			
		561.2	0.0010			
		882.6	0.0076			
		918.7	0.0051			
		924.0	0.0248			
		936.6	0.0033			
		941.4	0.0045			
		962.8	0.0061			
		984.4	0.2380			
		1026.0	0.0821			
		1028.0	0.1737			
		503.9	0.0054			
239Np	2.4d	14.3	0.6179	1.386–4	0.154	19.449
		49.4	0.0010			
		57.3	0.0015			
		61.5	0.0096			
		99.6	0.1471			
		103.8	0.2365			
		106.1	0.2270			
		117.0	0.1113			
		181.7	0.0011			
		209.7	0.0324			
		226.4	0.0034			
		228.2	0.1072			
		254.4	0.0010			
		277.6	0.1410			
		285.4	0.0078			
		315.9	0.0159			
		334.3	0.0203			
		151.5	0.0039			
240Np	65m	14.3	1.0940	3.820–4	2.233	1.342
		42.8	0.0011			
		98.9	0.0510			
		99.6	0.0852			
		103.8	0.1370			
		117.0	0.0644			
		134.6	0.0037			
		147.2	0.0139			
		152.2	0.0834			
		175.0	0.0603			
		182.6	0.0093			
		192.7	0.0677			
		270.8	0.0834			
		280.2	0.0037			
		295.0	0.0065			
		307.0	0.0139			
		448.2	0.1669			
		462.2	0.0139			
		467.4	0.0204			
		507.2	0.0185			
		566.4	0.2688			
		601.1	0.2039			
		606.1	0.0158			
		847.0	0.0464			
		867.4	0.0834			
		884.9	0.0371			
		888.8	0.0111			
		896.5	0.1298			
		916.0	0.0139			
		959.1	0.0232			
		973.9	0.2132			
		987.8	0.0464			
		1074.0	0.0093			
		1089.0	0.0046			
		1131.0	0.0065			
		1163.0	0.0065			
		1168.0	0.0464			
		1180.0	0.0065			
		1223.0	0.0046			
		422.7	0.0020			
240mNp	7.4m	20.0	0.0000	1.140–4	2.010	1.490
		14.3	0.3374			
		66.5	0.0027			
		98.9	0.0017			
		99.6	0.0013			
		103.8	0.0021			
		117.0	0.0010			
		189.5	0.0025			
		251.5	0.0096			
		263.4	0.0117			
		303.0	0.0112			
		507.2	0.0079			
		554.6	0.2237			
		597.4	0.1249			
		606.1	0.0074			
		758.6	0.0119			
		789.6	0.0021			
		813.4	0.0021			
		817.9	0.0124			
		841.1	0.0017			
		857.5	0.0047			
		900.5	0.0013			
		910.1	0.0017			
		916.0	0.0104			
		928.6	0.0017			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		938.0	0.0129			
		942.4	0.0011			
		961.6	0.0014			
		1445.0	0.0036			
		1488.0	0.0021			
		1497.0	0.0131			
		1540.0	0.0079			
		1633.0	0.0014			
		1020.0	0.0126			
236Pu	2.9y	13.6	0.1304	2.405−5	0.003	863.6
		60.9	0.0008			
237Pu	45.3d	13.9	0.5254	1.039−4	0.014	212.7
		26.3	0.0024			
		59.5	0.0328			
		97.1	0.1278			
		101.1	0.2064			
		114.0	0.0966			
		33.2	0.0008			
238Pu	87.8y	13.6	0.1158	2.135−5	0.003	864.8
		55.3	0.0005			
239Pu	2.41+4y	13.6	0.0441	8.145−6	0.003	860.3
		112.9	0.0005			
240Pu	6569y	13.6	0.1101	2.030−5	0.003	864.4
		54.3	0.0005			
242Pu	3.76+5y	13.6	0.0913	1.684−5	0.003	864.4
		56.4	0.0004			
243Pu	5.0h	14.6	0.1188	2.509−5	0.084	35.548
		41.8	0.0076			
		67.0	0.0023			
		84.0	0.2300			
		102.1	0.0009			
		106.5	0.0015			
		109.3	0.0016			
		120.0	0.0007			
		356.4	0.0013			
		381.7	0.0055			
		137.2	0.0018			
244Pu	8.3+7y	13.6	0.0793	1.462−5	0.003	865.1
		44.0	0.0003			
245Pu	10.6h	14.6	0.1750	1.045−4	2.092	1.432
		28.0	0.0072			
		102.1	0.0753			
		106.5	0.1208			
		120.0	0.0571			
		280.3	0.0137			
		308.1	0.0522			
		327.3	0.2700			
		341.0	0.0011			
		348.7	0.0103			
		376.6	0.0342			
		387.9	0.0031			
		395.9	0.0011			
		411.7	0.0052			
		428.5	0.0056			
		445.3	0.0032			
		491.5	0.0288			
		514.6	0.0018			
		525.1	0.0029			
		560.0	0.0576			
		591.6	0.0018			
		598.8	0.0013			
		624.4	0.0023			
		630.0	0.0288			
		657.2	0.0014			
		660.2	0.0090			
		669.3	0.0036			
		708.0	0.0029			
		730.4	0.0020			
		738.0	0.0023			
		740.2	0.0014			
		743.7	0.0016			
		762.7	0.0076			
		766.6	0.0038			
		776.7	0.0022			
		786.5	0.0040			
		796.4	0.0027			
		799.9	0.0167			
		817.0	0.0090			
		833.1	0.0056			
		840.6	0.0137			
		859.5	0.0054			
		868.8	0.0013			
		874.2	0.0014			
		887.1	0.0076			
		910.5	0.0148			
		938.4	0.0108			
		941.0	0.0027			
		957.6	0.0104			
		975.0	0.0027			
		977.2	0.0041			
		987.6	0.0140			
		996.0	0.0022			
		1005.0	0.0029			
		1007.0	0.0043			
		1013.0	0.0011			
		1018.0	0.0110			
		1023.0	0.0058			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		762.0	0.0235			
246Pu	10.9d	27.6	0.0423	2.727−5	0.278	10.771
		43.8	0.3000			
		66.6	0.0031			
		75.6	0.0022			
		179.9	0.1164			
		216.5	0.0014			
		223.7	0.2820			
		255.5	0.0028			
		202.9	0.0030			
241Am	432.2y	13.9	0.4270	8.479−5	0.011	260.7
		26.3	0.0240			
		33.2	0.0011			
		59.5	0.3590			
		69.2	0.0018			
242Am	16.0h	14.3	0.1266	5.476−5	0.004	720.7
		99.6	0.0366			
		103.8	0.0589			
		117.0	0.0277			
		44.5	0.0001			
		15.0	0.1965			
		42.2	0.0004			
242mAm	152y	14.6	0.2993	4.950−5	0.003	1132.
		48.6	0.0000			
		13.9	0.0038			
		49.4	0.0020			
		108.3	0.0016			
243Am	7380.0y	13.9	0.3905	8.456−5	0.042	71.213
		43.5	0.0554			
		74.7	0.6600			
		86.7	0.0034			
		117.7	0.0055			
		142.2	0.0013			
		48.4	0.0016			
244Am	10.1h	15.0	1.1690	3.166−4	2.108	1.421
		99.4	0.0483			
		104.6	0.0226			
		109.3	0.0361			
		123.0	0.0171			
		154.0	0.1800			
		206.0	0.0026			
		540.0	0.0038			
		746.0	0.6700			
		900.0	0.2800			
		42.9	0.0009			
245Am	2.0h	15.0	0.1100	2.341−5	0.169	17.710
		104.6	0.0363			
		109.3	0.0578			
		123.0	0.0275			
		241.2	0.0034			
		252.8	0.0610			
		295.8	0.0022			
		95.9	0.0010			
246Am	25.0m	15.0	0.3906	2.148−4	3.331	0.899
		99.2	0.0017			
		104.6	0.0088			
		109.3	0.0141			
		123.0	0.0067			
		237.2	0.0014			
		238.6	0.0015			
		244.0	0.0068			
		261.7	0.0016			
		270.1	0.0103			
		287.8	0.0013			
		401.7	0.0027			
		493.5	0.0011			
		602.5	0.0023			
		649.5	0.0037			
		684.3	0.0059			
		698.3	0.0012			
		717.2	0.0025			
		724.8	0.0021			
		734.4	0.0117			
		745.1	0.0024			
		752.1	0.0082			
		759.6	0.0064			
		781.3	0.0017			
		798.8	0.2490			
		833.6	0.0179			
		986.0	0.0096			
		1036.0	0.1275			
		1062.0	0.1721			
		1079.0	0.2789			
		1081.0	0.0025			
		1085.0	0.0153			
		1124.0	0.0026			
		1207.0	0.0015			
		1250.0	0.0015			
		1275.0	0.0027			
		1349.0	0.0012			
		1479.0	0.0023			
		1529.0	0.0022			
		1551.0	0.0027			
		1591.0	0.0052			
		1604.0	0.0010			
		1619.0	0.0012			
		1638.0	0.0016			
		1662.0	0.0023			

Nuclide	Half-life	E	Prob.	Γ	T	μ
		1738.0	0.0011			
		914.7	0.0296			
242Cm	163.2d	14.3	0.1154	1.949−5	0.003	1054.
		59.3	0.0004			
243Cm	28.5y	14.3	0.6081	1.286−4	0.129	23.268
		44.7	0.0012			
		57.3	0.0014			
		67.8	0.0014			
		99.6	0.1429			
		103.8	0.2297			
		106.1	0.0026			
		117.0	0.1080			
		209.7	0.0329			
		228.2	0.1058			
		254.4	0.0011			
		277.6	0.1397			
		285.4	0.0073			
		167.0	0.0033			
244Cm	18.1y	14.3	0.1031	1.741−5	0.003	1054.
		56.9	0.0003			
245Cm	8500.0y	14.3	0.6361	1.220−4	0.021	140.0
		42.0	0.0012			
		99.6	0.1361			
		103.8	0.2188			
		117.0	0.1029			
		133.0	0.0627			
		174.0	0.0640			
246Cm	4750.0y	14.3	0.0918	1.551−5	0.003	1054.
		44.5	0.0003			
247Cm	1.6+7y	14.3	0.0593	7.217−5	1.120	2.675
		99.6	0.0120			
		103.8	0.0193			
		117.0	0.0091			
		275.1	0.0052			
		278.0	0.0340			
		287.4	0.0200			
		333.0	0.0034			
		346.0	0.0130			
		402.6	0.7200			
		116.1	0.0011			
248Cm	3.4+5y	14.3	0.0727	1.227−5	0.003	1054.
		56.2	0.0003			
249Cm	1.1h	15.3	0.0038	3.982−6	2.025	1.479
		107.2	0.0008			
		112.1	0.0012			
		126.0	0.0006			
		368.8	0.0035			
		560.4	0.0084			
		621.9	0.0018			
		634.3	0.0150			
		652.8	0.0014			
		389.9	0.0024			
250Bk	3.2h	15.7	0.3118	1.834−4	3.474	0.862
		98.2	0.0012			
		109.9	0.0026			
		115.1	0.0041			
		129.0	0.0020			
		890.0	0.0164			
		929.3	0.0137			
		989.0	0.4510			
		1029.0	0.0439			
		1032.0	0.3510			
		42.2	0.0004			
248Cf	333.5d	15.0	0.0791	1.229−5	0.002	1271.
		42.9	0.0002			
249Cf	350.6y	15.0	0.3026	1.119−4	0.866	3.459
		54.7	0.0021			
		92.3	0.0030			
		104.6	0.0219			
		109.3	0.0350			
		123.0	0.0166			
		241.2	0.0022			
		252.8	0.0273			
		266.7	0.0075			
		295.8	0.0014			
		333.4	0.1551			
		388.0	0.6600			
		283.7	0.0043			
250Cf	13.1y	15.0	0.0780	1.212−5	0.002	1269.
		76.6	0.0003			
251Cf	900.0y	15.0	0.5962	1.162−4	0.068	43.960
		61.5	0.0056			
		68.0	0.0020			
		73.0	0.0030			
		83.0	0.0010			
		104.6	0.1548			
		109.3	0.2469			
		123.0	0.1173			
		135.0	0.0010			
		144.0	0.0010			
		154.0	0.0020			
		176.6	0.1770			
		214.0	0.0020			

Nuclide	Half-life	E	Prob.	Γ	T	μ	Nuclide	Half-life	E	Prob.	Γ	T	μ
		227.0	0.0630										
		255.0	0.0020										
		262.0	0.0020										
		266.0	0.0050										
		270.0	0.0020										
		285.0	0.0140										
		291.0	0.0040										
252Cf	2.6y	15.0	0.0728	1.131−5	0.002	1269.							
		68.2	0.0003										
253Cf	17.8d	15.0	0.0013	2.080−7	0.002	1272.							
		60.8	0.0000										
254Cf	60.5d	43.0	0.0000	1.311−11	0.024	122.5							
253Es	20.5d	15.3	0.0457	6.921−6	0.003	1196.							
		203.0	0.0014										
254Es	275.7d	15.3	0.9885	1.490−4	0.002	1229.							
		42.6	0.0014										
		63.0	0.0200										
		316.0	0.0015										
		221.8	0.0044										
254mEs	1.6d	159.4	0.0023	1.514−4	2.133	1.405							
		16.4	0.4021										
		104.4	0.0021										
		115.3	0.0060										
		121.1	0.0095										
		136.0	0.0046										
		544.5	0.0107										
		584.3	0.0344										
		648.8	0.3437										
		688.7	0.1481										
		693.8	0.2939										
		45.0	0.0006										
255Es	39.8d	15.3	0.0057	8.529−7	0.002	1263.							
		42.4	0.0000										
254Fm	3.2h	15.7	0.0781	1.121−5	0.002	1375.							
		84.9	0.0005										
255Fm	20.1h	15.7	0.6032	8.721−5	0.002	1334.							
		23.0	0.0015										
		24.8	0.0020										
		57.9	0.0011										
		58.5	0.0067										
		60.0	0.0012										
		80.9	0.0027										
		81.5	0.0081										
		142.8	0.0015										

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