

Radionuklid	Freigrenze in Bq	Freigrenze, uneingeschränkte Freigabe von festen u. flüssigen Stoffen in Bq/g	Aktivität HRQ in TBq	Oberflächenkontamination in Bq/cm ²	spezifische Freigabe von										Halbwertszeit
					Bauschutz von mehr als 1.000 Mg/a in Bq/g	Bodenflächen in Bq/g	festen Stoffen bis zu 100 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 100 Mg/a zur Besei- ligung in Verbrennungsanlagen in Bq/g	festen Stoffen bis zu 1000 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 1000 Mg/a zur Besei- ligung in Verbrennungsanlagen in Bq/g	Gebäuden zur Wieder- und Welterwendung in Bq/cm ²	Gebäuden zum Abriss in Bq/cm ²	Metallschrott zur Rezyklierung in Bq/g		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Tc-95m+	1 E+6	1	1 E-1											61,0 d	
Tc-96	1 E+6	1	3 E-2	1	9 E-2						1	2 E+2	1 E+1	4,3 d	
Tc-96m	1 E+7	1 E+3	3 E-2	1 E+2	5						1 E+2	1 E+6	1 E+3	51,5 m	
Tc-97	1 E+8	1 E+1	UL	1 E+2	6	8 E-2	7 E+1	6 E+1	7	6	8 E+1	7 E+2	4 E+2	2,6 E+6 a	
Tc-97m	1 E+7	1 E+2	4 E+1	1 E+2	9	1 E-2	1 E+3	1 E+3	2 E+2	3 E+2	1 E+2	5 E+2	1 E+3	90,2 d	
Tc-99	1 E+7	1 E+0	3 E+1	1 E+2	6 E-1		7	6	7 E-1	6 E-1	7 E+1	7 E+1	4 E+1	2,1 E+5 a	
Tc-99m	1 E+7	1 E+2	7 E-1	1 E+1	2						1 E+1	7 E+4	1 E+2	6,0 h	
Tc-101	1 E+6	1 E+2												14,2 m	
Tc-104	1 E+5	1 E+1												18,3 m	
Ru-94	1 E+6	1 E+2												51,8 m	
Ru-97	1 E+7	1 E+1	3 E-1	1 E+1	1						1 E+1	3 E+3	1 E+2	2,9 d	
Ru-103+	1 E+6	1	1 E-1	1 E+1	4	2 E-1	3 E+1	5 E+1	1 E+1	1 E+1	1 E+1	9 E+1	4 E+1	39,3 d	
Ru-105+	1 E+6	1 E+1	8 E-2	1	3 E-1						1	1 E+4	1 E+1	4,4 h	
Ru-106+	1 E+5	1 E-1	3 E-1	1 E+1	1	3 E-1	7 E+1	1 E+2	2 E+1	2 E+1	6	5 E+1	1	372,6 d	
Rh-99	1 E+6	1 E+1	1 E-1											16,1 d	
Rh-99m	1 E+6	1 E+1												4,7 h	
Rh-100	1 E+6	1 E+1												20,8 h	
Rh-101	1 E+7	1	3 E-1											3,2 a	
Rh-101m	1 E+7	1 E+2												4,3 d	
Rh-102	1 E+6	1 E-1	3 E-2											2,9 a	
Rh-102m	1 E+6	1	1 E-1											219,0 d	
Rh-103m	1 E+8	1 E+4	9 E+2	1 E+2	7 E+3						1 E+3	1 E+9	1 E+4	56,1 m	
Rh-105	1 E+7	1 E+2	9 E-1	1 E+1	3						1 E+1	2 E+4	1 E+2	35,4 h	
Rh-106m	1 E+5	1 E+1												2,2 h	
Rh-107	1 E+6	1 E+2												21,7 m	
Pd-100+	1 E+7	1 E+2												3,6 d	
Pd-101	1 E+6	1 E+2												8,5 h	
Pd-103+	1 E+8	1 E+3	9 E+1	1 E+2	3 E+2	2 E+1	1 E+3	1 E+3	1 E+3	1 E+3	1 E+2	2 E+5	3 E+2	17,0 d	
Pd-107	1 E+8	1 E+3	UL											6,5 E+6 a	
Pd-109+	1 E+6	1 E+2	2 E+1	1 E+2	3 E+2						1 E+2	5 E+6	1 E+3	13,7 h	
Ag-102	1 E+5	1 E+1												12,9 m	
Ag-103	1 E+6	1 E+1												1,1 h	
Ag-104	1 E+6	1 E+1												69,2 m	
Ag-104m	1 E+6	1 E+1												33,5 m	
Ag-105	1 E+6	1	1 E-1	1	5 E-1	1 E-1	3 E+1	4 E+1	9	4	1 E+1	9 E+1	4 E+1	41,3 d	
Ag-106	1 E+6	1 E+1												24,0 m	
Ag-106m	1 E+6	1 E+1												8,5 d	
Ag-108m+	1 E+6	1 E-1	4 E-2	1	1 E-1	7 E-3	9	1 E+1	1	1	5 E-1	4	8 E-1	418,0 a	
Ag-110m+	1 E+6	1 E-1	2 E-2	1	8 E-2	7 E-3	6	6	2	6 E-1	5 E-1	4	5 E-1	249,8 d	
Ag-111	1 E+6	1 E+2	2	1 E+2	9	4 E-1	7 E+2	1 E+3	2 E+2	2 E+2	1 E+2	9 E+3	4 E+1	7,5 d	
Ag-112	1 E+5	1 E+1												3,1 h	
Ag-115	1 E+5	1 E+1												20,0 m	
Cd-104+	1 E+7	1 E+2												57,7 m	
Cd-107+	1 E+7	1 E+3												6,5 h	
Cd-109+	1 E+6	1	2 E+1	1 E+2	2 E+1	3 E-2	8 E+2	4 E+3	8 E+1	4 E+2	4 E+1	4 E+3	2 E+1	462,6 d	
Cd-113	1 E+6	1 E-1												7,7 E+15 a	
Cd-113m	1 E+6	1 E-1	4 E+1											14,6 a	
Cd-115+	1 E+6	1 E+1	2 E-1	1 E+1	6 E-1						1 E+1	2 E+3	1 E+2	53,5 h	
Cd-115m+	1 E+6	1 E+2	3	1 E+2	1 E+1	4 E-2	7 E+2	7 E+2	2 E+2	7 E+1	1 E+2	2 E+3	2 E+1	44,6 d	
Cd-117+	1 E+6	1 E+1												2,5 h	
Cd-117m+	1 E+6	1 E+1												3,4 h	
In-109	1 E+6	1 E+1												4,2 h	
In-110m	1 E+5	1 E+1												69,1 m	
In-111+	1 E+6	1 E+1	2 E-1	1 E+1	7 E-1						1 E+1	2 E+3	1 E+2	2,8 d	
In-112	1 E+6	1 E+2												14,7 m	
In-113m	1 E+6	1 E+2	3 E-1	1 E+1	9 E-1						1 E+1	1 E+5	1 E+2	99,5 m	
In-114	1 E+5	1 E+3	8 E-1											1,2 m	
In-114m+	1 E+6	1 E+1	8 E-1	1 E+1	2	3 E-2	1 E+2	1 E+2	4 E+1	2 E+1	1 E+1	3 E+2	1 E+1	50,0 d	
In-115	1 E+6	1 E+1												4,4 E+14 a	
In-115m	1 E+6	1 E+2	4 E-1	1 E+1	2						1 E+1	6 E+4	1 E+2	4,5 h	
In-116m	1 E+5	1 E+1												54,6 m	
In-117	1 E+6	1 E+1												43,2 m	
In-117m+	1 E+6	1 E+2												1,9 h	
In-119m+	1 E+5	1 E+2												18,0 m	
Sn-110+	1 E+7	1 E+2												4,1 h	
Sn-111+	1 E+6	1 E+2												35,3 m	
Sn-113+	1 E+7	1	3 E-1	1 E+1	9 E-1	1 E-1	6 E+1	8 E+1	2 E+1	8	7	7 E+1	2	115,1 d	

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					Beuschutt von mehr als 1.000 Mg/a in Bq/g	Bodenflächen in Bq/g	festen Stoffen bis zu 100 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 100 Mg/a zur Besei- tigung in Verbrennungsanlagen in Bq/g	festen Stoffen bis zu 1000 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 1000 Mg/a zur Besei- tigung in Verbrennungsanlagen in Bq/g	Gebäuden zur Wieder- und Weiterverwendung in Bq/cm ²	Gebäuden zum Abriss in Bq/cm ²	Metallschrott zur Rezyklierung in Bq/g		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Pm-145	1 E+7	1 E+1	1 E+1											17,7 a	
Pm-146	1 E+6	1 E-1												5,5 a	
Pm-147	1 E+7	1 E+3	4 E+1	1 E+2	2 E+2	2 E+1	1 E+4	1 E+4	1 E+4	1 E+4	1 E+3	2 E+4	6 E+3	2,6 a	
Pm-148	1 E+5	1 E+1												5,4 d	
Pm-148m	1 E+6	1	3 E-2											41,1 d	
Pm-149	1 E+6	1 E+3	6	1 E+2	2 E+1						1 E+2	7 E+4	1 E+3	53,1 h	
Pm-150	1 E+5	1 E+1												2,7 h	
Pm-151	1 E+6	1 E+2	2 E-1											28,4 h	
Sm-141	1 E+5	1 E+1												10,2 m	
Sm-141m+	1 E+6	1 E+1												22,6 m	
Sm-142+	1 E+7	1 E+2												72,5 m	
Sm-145	1 E+7	1 E+1												340,0 d	
Sm-146	1 E+5	1												1,0 E+8 a	
Sm-147	1 E+4	1	UL											1,1 E+11 a	
Sm-151	1 E+8	1 E+3	5 E+2	1 E+2	5 E+2	4 E+1	1 E+4	1 E+4	1 E+4	1 E+4	1 E+3	3 E+4	7 E+3	90,0 a	
Sm-153	1 E+6	1 E+2	2	1 E+1	1 E+1						1 E+2	4 E+4	1 E+2	46,3 h	
Sm-155	1 E+6	1 E+2												22,3 m	
Sm-156	1 E+6	1 E+2												9,4 h	
Eu-145	1 E+6	1 E+1												5,9 d	
Eu-146	1 E+6	1 E+1												4,6 d	
Eu-147	1 E+6	1 E+1	2 E-1											24,0 d	
Eu-148	1 E+6	1	3 E-2											54,5 d	
Eu-149	1 E+7	1 E+1	2											93,1 d	
Eu-150	1 E+6	1 E-1												36,4 a	
Eu-152	1 E+6	1 E-1	6 E-2	1	2 E-1	7 E-2	1 E+1	1 E+1	4	4	8 E-1	6	5 E-1	13,5 a	
Eu-152m	1 E+6	1 E+2	2 E-1	1 E+1	7 E-1						1 E+1	1 E+4	1 E+2	9,3 h	
Eu-154	1 E+6	1 E-1	6 E-2	1	2 E-1	6 E-2	1 E+1	1 E+1	4	4	7 E-1	6	5 E-1	8,6 a	
Eu-155	1 E+7	1	2	1 E+1	8	2	1 E+2	1 E+2	1 E+2	1 E+2	2 E+1	3 E+2	3 E+1	4,8 a	
Eu-156	1 E+6	1 E+1												15,2 d	
Eu-157	1 E+6	1 E+2												15,2 h	
Eu-158	1 E+5	1 E+1												45,9 m	
Gd-145	1 E+5	1 E+1												23,0 m	
Gd-146+	1 E+6	1	3 E-2											48,3 d	
Gd-147	1 E+6	1 E+1												38,1 h	
Gd-148	1 E+4	1	4 E-1											74,6 a	
Gd-149	1 E+6	1 E+2												9,3 d	
Gd-151	1 E+7	1 E+1												124,0 d	
Gd-152	1 E+4	1												1,1 E+14 a	
Gd-153	1 E+7	1 E+1	1	1 E+1	6	1	1 E+2	1 E+2	1 E+2	1 E+2	1 E+1	3 E+2	2 E+1	240,4 d	
Gd-159	1 E+6	1 E+2	2	1 E+2	7						1 E+2	7 E+4	1 E+3	18,5 h	
Tb-147	1 E+6	1 E+1												1,7 h	
Tb-149	1 E+6	1 E+1												4,1 h	
Tb-150	1 E+6	1 E+1												3,5 h	
Tb-151	1 E+6	1 E+1												17,6 h	
Tb-153	1 E+7	1 E+2												2,3 d	
Tb-154	1 E+6	1 E+1												21,5 h	
Tb-155	1 E+7	1 E+2												5,3 d	
Tb-156	1 E+6	1 E+1												5,2 d	
Tb-156n	1 E+7	1 E+3												5,3 h	
Tb-157	1 E+7	1 E+2	1 E+2											99,0 a	
Tb-158	1 E+6	1 E-1	9 E-2											180,0 a	
Tb-160	1 E+6	1	6 E-2	1	2 E-1	7 E-2	1 E+1	1 E+1	4	4	1	2 E+1	6 E-1	72,3 d	
Tb-161	1 E+6	1 E+3												6,9 d	
Dy-155	1 E+6	1 E+1												9,9 h	
Dy-157	1 E+6	1 E+2												8,1 h	
Dy-159	1 E+7	1 E+2	6											144,4 d	
Dy-165	1 E+6	1 E+3	3	1 E+2	1 E+1						1 E+2	9 E+5	1 E+3	2,3 h	
Dy-166	1 E+6	1 E+2	1	1 E+1	5						1 E+1	1 E+4	1 E+3	81,6 h	
Ho-155	1 E+6	1 E+2												48,0 m	
Ho-157+	1 E+6	1 E+2												12,6 m	
Ho-159	1 E+6	1 E+2												33,1 m	
Ho-161	1 E+7	1 E+2												2,5 h	
Ho-162	1 E+7	1 E+2												15,0 m	
Ho-162m+	1 E+6	1 E+1												67,0 m	
Ho-164	1 E+6	1 E+3												28,6 m	
Ho-164m+	1 E+7	1 E+3												37,0 m	
Ho-166	1 E+5	1 E+2	2	1 E+2	1 E+1						1 E+2	7 E+4	1 E+3	26,8 h	

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					Beuschutt von mehr als 1.000 Mg/a in Bq/g	Bodenflächen in Bq/g	festen Stoffen bis zu 100 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 100 Mg/a zur Besei- gung in Verbrennungsanlagen in Bq/g	festen Stoffen bis zu 1000 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 1000 Mg/a zur Besei- gung in Verbrennungsanlagen in Bq/g	Gebäuden zur Wieder- und Weiterverwendung in Bq/cm ²	Gebäuden zum Abriss in Bq/cm ²	Metallschrott zur Rezyklierung in Bq/g		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Hg-197	1 E+7	1 E+2	2	1 E+1	9						1 E+2	3 E+4	1 E+2	64,6 h	
Hg-197m+	1 E+6	1 E+2	7 E-1	1 E+1	4						1 E+1	3 E+4	1 E+2	23,8 h	
Hg-203	1 E+5	1 E+1	3 E-1	1 E+1	1		7 E+1	1 E+2	2 E+1	1 E+1	1 E+1	2 E+2	2	46,6 d	
Tl-194	1 E+6	1 E+1												33,0 m	
Tl-194m	1 E+6	1 E+1												32,8 m	
Tl-195	1 E+6	1 E+1												1,2 h	
Tl-197	1 E+6	1 E+2												2,8 h	
Tl-198	1 E+6	1 E+1												5,3 h	
Tl-198m	1 E+6	1 E+1												1,9 h	
Tl-199	1 E+6	1 E+2												7,4 h	
Tl-200	1 E+6	1 E+1	5 E-2	1	2 E-1						1	1 E+3	1 E+1	26,1 h	
Tl-201	1 E+6	1 E+2	1	1 E+1	6						1 E+1	1 E+4	1 E+2	73,0 h	
Tl-202	1 E+6	1 E+1	2 E-1	1 E+1	5 E-1	2 E-1	4 E+1	6 E+1	1 E+1	7	1 E+1	3 E+2	1 E+2	12,2 d	
Tl-204	1 E+4	1	2 E+1	1 E+2	4 E+1	4 E-2	9 E+2	9 E+3	9 E+1	9 E+2	1 E+2	3 E+3	3 E+2	3,8 a	
Pb-195m+	1 E+6	1 E+1												15,0 m	
Pb-198	1 E+6	1 E+2												2,4 h	
Pb-199	1 E+6	1 E+1												1,5 h	
Pb-200	1 E+6	1 E+2												21,5 h	
Pb-201	1 E+6	1 E+1												9,4 h	
Pb-202+	1 E+6	1 E-1	2 E-1											5,3 E+4 a	
Pb-202m	1 E+6	1 E+1												3,6 h	
Pb-203	1 E+6	1 E+1	2 E-1	1 E+1	9 E-1						1 E+1	3 E+3	1 E+2	51,9 h	
Pb-205	1 E+7	1 E+1	UL											1,5 E+7 a	
Pb-209	1 E+6	1 E+5												3,3 h	
Pb-210+	1 E+4	1 E-1	3 E-1	1	3 E-2		3 E+1	8 E+1	3	8	1	1	6 E-2	22,2 a	
Pb-211+	1 E+6	1 E+2												36,1 m	
Pb-212	1 E+7	1 E+1		1	1 E-1						1	2 E+3	1 E+1	10,6 h	
Pb-212+	1 E+5	1 E+1	5 E-2	1										10,6 h	
Pb-214+	1 E+6	1 E+2												26,8 m	
Bi-200	1 E+6	1 E+1												36,4 m	
Bi-201+	1 E+6	1 E+1												1,8 h	
Bi-202	1 E+6	1 E+1												1,7 h	
Bi-203+	1 E+6	1 E+1												11,8 h	
Bi-205+	1 E+6	1 E+1												15,3 d	
Bi-206	1 E+5	1	2 E-2	1	7 E-2						1	9 E+1	1 E+1	6,2 d	
Bi-207	1 E+6	1 E-1	5 E-2	1	2 E-1	5 E-2	1 E+1	1 E+1	3	1	5 E-1	5	6 E-1	31,8 a	
Bi-210	1 E+6	1 E+3	8	1 E+2	9						3 E+1	1 E+4	1 E+3	5,0 d	
Bi-210m+	1 E+5	1 E-1	3 E-1											3,0 E+6 a	
Bi-212+	1 E+5	1 E+1	5 E-2	1	2 E-1						1	3 E+4	1 E+1	60,5 m	
Bi-213+	1 E+6	1 E+2												45,6 m	
Bi-214+	1 E+5	1 E+1												19,9 m	
Po-203	1 E+6	1 E+1		1	1 E-1						1	4 E+4	1 E+1	36,7 m	
Po-205	1 E+6	1 E+1		1	1 E-1						1	1 E+4	1 E+1	1,7 h	
Po-206	1 E+6	1 E+1												8,8 d	
Po-207	1 E+6	1 E+1		1	2 E-1						1	5 E+3	1 E+1	5,8 h	
Po-208	1 E+4	1												2,9 a	
Po-209	1 E+4	1												102,0 a	
Po-210	1 E+4	1	6 E-2	1	4 E-2		1 E+1	1 E+1	3	1 E+1	1	7	1	138,4 d	
At-207	1 E+6	1 E+1												1,8 h	
At-211+	1 E+7	1 E+3		1 E+1	1 E+1						8	3 E+5	1 E+3	7,2 h	
Rn-220+	1 E+7	1 E+4												< 10 m	
Rn-222+	1 E+8	1 E+1												3,8 d	
Fr-222+	1 E+5	1 E+3												14,2 m	
Fr-223+	1 E+6	1 E+2												21,8 m	
Ra-223+	1 E+5	1 E+2	1 E-1	1	4 E-1	1 E-2	3 E+1	6 E+1	1 E+1	2 E+1	1	3 E+2	5 E-1	11,4 d	
Ra-224+	1 E+5	1 E+1	5 E-2	1	1 E-1						1	3 E+2	1 E+1	3,6 d	
Ra-225	1 E+5	1 E+1		1 E-1	2 E-1		5 E+1	9 E+1	1 E+1	3 E+1	1 E-1	8 E+1	4 E-1	14,8 d	
Ra-226+	1 E+4	1 E-2	4 E-2	1	3 E-2		4 E-1	5	4 E-2	5 E-1	5 E-1	9 E-1	5 E-2	1,6 E+3 a	
Ra-227	1 E+6	1 E+2		1 E+1	1						1 E+1	3 E+5	1 E+2	42,2 m	
Ra-228+	1 E+5	1 E-1	3 E-2	1	1 E-1		5	8	2	2	4 E-1	4	7 E-1	5,8 a	
Ac-224+	1 E+6	1 E+2												2,8 h	
Ac-225+	1 E+4	1 E+1												10,0 d	
Ac-226+	1 E+5	1 E+2												29,4 h	
Ac-227+	1 E+3	1 E-2	4 E-2	1			1 E-1	1 E-1	1 E-1	1 E-1			3 E-2	21,8 a	
Ac-228	1 E+6	1 E+1	3 E-2	1	2 E-1						1	7 E+3	1 E+1	6,2 h	
Th-226+	1 E+7	1 E+3		1 E+1	3 E+1						1 E+2	1 E+7	1 E+3	30,6 m	
Th-227	1 E+4	1 E+1		1 E-1	2 E-1		1 E+1	1 E+1	7	1 E+1	1 E-1	6 E+1	3 E-1	18,7 d	

Radionuklid	spezifische Freigabe von														Halbwertszeit
	Freigrenze in Bq	Freigrenze, uneingeschränkte Freigabe von festen u. flüssigen Stoffen in Bq/g	Aktivität HRQ in TBq	Oberflächenkontamination in Bq/cm ²	Beuschutt von mehr als 1.000 Mg/a in Bq/g	Bodenflächen in Bq/g	festen Stoffen bis zu 100 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 100 Mg/a zur Beseitigung in Verbrennungsanlagen in Bq/g	festen Stoffen bis zu 1000 Mg/a zur Beseitigung auf Deponien in Bq/g	Stoffen bis zu 1000 Mg/a zur Beseitigung in Verbrennungsanlagen in Bq/g	Gebäuden zur Wieder- und Weiterverwendung in Bq/cm ²	Gebäuden zum Abriss in Bq/cm ²	Metallschrott zur Rezyklierung in Bq/g		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Th-228+	1 E+4	1 E-1	4 E-2	1 E-1	7 E-2		1	1	1	1	1 E-1	3	4 E-1	1,9 a	
Th-229+	1 E+3	1 E-1	1 E-2	1 E-1	2 E-2		1	1	1	1	1 E-1	9 E-1	1 E-1	7,3 E+3 a	
Th-230	1 E+4	1 E-1		1 E-1	5 E-2		5 E-1	1	5 E-2	3 E-1	1 E-1	3	3 E-1	7,5 E+4 a	
Th-231	1 E+7	1 E+3	1 E+1	1 E+2	4 E+1						1 E+2	3 E+5	1 E+3	25,5 h	
Th-232	1 E+4	1 E+1		1 E-1	3 E-2		7 E-1	5	7 E-2	7 E-1	1 E-1	1	3 E-1	1,4 E+10 a	
Th-232+	1 E+3	1 E-2	UL	1 E-1			7 E-1	1	7 E-2	1 E-1			1 E-1	1,4 E+10 a	
Th-234+	1 E+5	1 E+2	2	1 E+2	1 E+1		9 E+2	1 E+3	3 E+2	3 E+2	1 E+2	4 E+3	1 E+1	24,1 d	
Pa-227+	1 E+6	1 E+3												38,3 m	
Pa-228+	1 E+6	1 E+1												22,0 h	
Pa-230+	1 E+6	1 E+1	1 E-1	1	4 E-1	1 E-1	1 E+1	1 E+1	8	8	1 E+1	2 E+2	1 E+1	17,4 d	
Pa-231	1 E+3	1 E-2		1 E-2	4 E-3		1 E-1	1	1 E-2	1 E-1	1 E-2	1 E-1	2 E-1	3,3E+4 a	
Pa-232	1 E+6	1 E+1												1,3 d	
Pa-233	1 E+7	1 E+1	4 E-1	1 E+1	1	4 E-1	8 E+1	1 E+2	2 E+1	2 E+1	1 E+1	4 E+2	6 E+1	27,0 d	
Pa-234	1 E+6	1 E+1												6,8 h	
U-230+	1 E+5	1 E+1	4 E-2	1 E-1	2 E-1		1 E+1	1 E+1	9	1 E+1	1 E-1	8 E+1	9 E-1	20,8 d	
U-231	1 E+7	1 E+2		1 E+1	6						1 E+1	1 E+4	1 E+2	4,2 d	
U-232+	1 E+3	1 E-1	6 E-2	1 E-1	5 E-2		1	1	5 E-1	1	1 E-1	1	3 E-1	69,8 a	
U-233	1 E+4	1	7 E-2	1	3 E-1		5	1 E+1	5 E-1	4	1	1 E+1	3	1,6 E+5 a	
U-234	1 E+4	1		1	4 E-1		6	1 E+1	6 E-1	2	1	1 E+1	2	2,5 E+5 a	
U-235+	1 E+4	1	8 E-5	1	3 E-1		3	4	3 E-1	4 E-1	1	1 E+1	8 E-1	7,0 E+8 a	
U-236	1 E+4	1 E+1	2 E-1	1	4 E-1		6	1 E+1	6 E-1	6	2	1 E+1	3	2,4 E+7 a	
U-237	1 E+6	1 E+2		1 E+1	3						1 E+1	3 E+3	1 E+2	6,8 d	
U-238+	1 E+4	1	UL	1	4 E-1		6	1 E+1	6 E-1	5	2	1 E+1	2	4,5 E+9 a	
U-239	1 E+6	1 E+2		1 E+2	9						1 E+2	4 E+6	1 E+2	23,5 m	
U-240+	1 E+6	1 E+2		1 E+1	7 E-1						1 E+1	9 E+3	1 E+3	14,1 h	
Np-232	1 E+6	1 E+1												14,7 m	
Np-233	1 E+7	1 E+2												36,2 m	
Np-234	1 E+6	1 E+1												4,4 d	
Np-235	1 E+7	1 E+2	1 E+2											395,9 d	
Np-236m	1 E+7	1												22,5 h	
Np-236	1 E+5	1 E+3												1,5 E+5 a	
Np-237+	1 E+3	1	7 E-2	1 E-1	1 E-1		1	1	1 E-1	1	1 E-1	5	6 E-1	2,1 E+6 a	
Np-238	1 E+6	1 E+2												2,1 d	
Np-239	1 E+7	1 E+2	5 E-1	1 E+1	2						1 E+1	6 E+3	1 E+2	2,4 d	
Np-240	1 E+6	1 E+1		1	2 E-1						1	4 E+4	1 E+1	65,0 m	
Pu-234	1 E+7	1 E+2		1 E+1	4						1 E+1	8 E+4	1 E+2	8,8 h	
Pu-235	1 E+7	1 E+2		1 E+1	3						1 E+1	1 E+6	1 E+2	25,3 m	
Pu-236	1 E+4	1	1 E-1	1 E-1	2 E-1	1 E-1	1 E+1	1 E+1	6	1 E+1	1 E-1	7	7 E-1	2,9 a	
Pu-237	1 E+7	1 E+2	2	1 E+2	9	2	5 E+2	1 E+3	1 E+2	1 E+2	1 E+2	2 E+3	5 E+2	45,3 d	
Pu-238	1 E+4	1 E-1	6 E-2	1 E-1	8 E-2	6 E-2	1	1	1	1	1 E-1	3	3 E-1	87,7 a	
Pu-239+	1 E+4	1 E-1	6 E-2	1 E-1	8 E-2	4 E-2	1	1	5 E-1	1	1 E-1	2	2 E-1	2,4 E+4 a	
Pu-240	1 E+3	1 E-1	6 E-2	1 E-1	8 E-2	4 E-2	1	1	6 E-1	1	1 E-1	2	2 E-1	6,6 E+3 a	
Pu-241+	1 E+5	1 E+1	3	1 E+1	2	4	1 E+2	1 E+2	4 E+1	1 E+2	1 E+1	9 E+1	1 E+1	14,3 a	
Pu-242	1 E+4	1 E-1	7 E-2	1 E-1	4 E-2	4 E-2	1	1	5 E-1	1	1 E-1	2	3 E-1	3,7 E+5 a	
Pu-243	1 E+7	1 E+3		1 E+2	2 E+1						1 E+2	7 E+5	1 E+3	5,0 h	
Pu-244+	1 E+4	1 E-1	3 E-4	1 E-1	4 E-2	4 E-2	1	1	3 E-1	1	1 E-1	3	3 E-1	8,0 E+7 a	
Pu-245+	1 E+6	1 E+2												10,5 h	
Pu-246+	1 E+6	1 E+2												10,9 d	
Am-237+	1 E+6	1 E+2												73,0 m	
Am-238	1 E+6	1 E+1												1,6 h	
Am-239	1 E+6	1 E+2												11,9 h	
Am-240	1 E+6	1 E+1												50,8 h	
Am-241	1 E+4	1 E-1	6 E-2	1 E-1	5 E-2	6 E-2	1	1	1	1	1 E-1	3	3 E-1	432,8 a	
Am-242	1 E+6	1 E+3		1 E+2	3 E+1						1 E+2	3 E+5	1 E+3	16,0 h	
Am-242m+	1 E+4	1 E-1	3 E-1	1 E-1	9 E-2	7 E-2	1	1	1	1	1 E-1	3	3 E-1	141,0 a	
Am-243+	1 E+3	1 E-1	2 E-1	1 E-1	9 E-2	5 E-2	1	1	9 E-1	1	1 E-1	3	3 E-1	7,4 E+3 a	
Am-244	1 E+6	1 E+1	9 E-2											10,1 h	
Am-244m	1 E+7	1 E+4												26,0 m	
Am-245	1 E+6	1 E+3												2,1 h	
Am-246	1 E+5	1 E+1												39,0 m	
Am-246m	1 E+6	1 E+1												25,0 m	
Cm-238+	1 E+7	1 E+2												2,4 h	
Cm-240	1 E+5	1 E+2	3 E-1											27,0 d	
Cm-241	1 E+6	1 E+1												32,8 d	
Cm-242	1 E+5	1 E+1	4 E-2	1	7 E-1	4 E-1	8 E+1	1 E+2	2 E+1	5 E+1	1	4 E+1	5	162,9 d	
Cm-243	1 E+4	1	2 E-1	1 E-1	1 E-1	7 E-2	1	1	1	1	1 E-1	4	4 E-1	30,0 a	
Cm-244	1 E+4	1	5 E-2	1 E-1	8 E-2	8 E-2	1 E+1	1 E+1	5	1 E+1	1 E-1	5	5 E-1	18,0 a	

