Bundesamt für Strahlenschutz BfS

ERMITTLUNG VON ART UND MENGE CHEMOTOXISCHER STOFFE IN ALLEN ARTEN RADIOAKTIVER ABFÄLLE UND BEWERTUNG IHRER FREISETZUNG IM HINBLICK AUF DAS SCHUTZZIEL DES WASSERHAUSHALTSGESETZES

REALE AKKUMULATION DER RADIOAKTIVEN ABFÄLLE ALLER HERKUNFTSKATEGORIEN BECQUEREL VS. ZEIT

**** ANHANG C ****

Verfasser: Buchheim Engineering Fällanden/Zürich, 28. Juni 2005

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C.1

Abklingrechnung des Gesamtinventars Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien

Herkunftskat.	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a			
1) Gesamtaktiv	1) Gesamtaktivität in [Bq]														
BE	1.13E+20	5.14E+19	3.22E+19	1.16E+19	1.96E+18	7.42E+17	2.73E+17	1.70E+17	7.83E+16	2.67E+16	1.75E+16	9.88E+15			
F	4.61E+15	3.29E+15	2.84E+15	9.00E+14	1.01E+14	4.63E+13	2.54E+13	1.67E+13	8.04E+12	3.21E+12	3.85E+12	5.86E+12			
I	5.88E+15	3.22E+15	2.71E+15	1.29E+15	7.97E+14	3.80E+14	1.85E+14	1.18E+14	5.54E+13	2.19E+13	1.43E+13	7.66E+12			
K	8.20E+15	4.93E+15	3.96E+15	2.48E+15	5.65E+14	4.34E+13	3.89E+13	3.57E+13	2.93E+13	1.53E+13	2.47E+12	1.99E+10			
L	5.76E+13	5.79E+13	5.83E+13	4.83E+13	4.20E+13	3.54E+13	2.71E+13	1.52E+13	8.09E+12	8.37E+12	9.52E+12	9.77E+12			
S	2.14E+17	1.48E+17	1.23E+17	8.20E+16	1.98E+16	1.74E+15	1.36E+15	8.54E+14	4.34E+14	2.13E+14	6.22E+13	2.48E+13			
U	1.61E+12	2.11E+12	2.31E+12	9.39E+11	6.52E+11	7.01E+11	7.67E+11	7.22E+11	6.06E+11	5.04E+11	4.22E+11	4.09E+11			
W	4.37E+19	2.18E+19	1.38E+19	4.54E+18	2.88E+17	8.37E+16	2.01E+16	1.32E+16	8.61E+15	5.76E+15	3.71E+15	1.98E+15			
Summe	1.57E+20	7.33E+19	4.61E+19	1.62E+19	2.27E+18	8.28E+17	2.95E+17	1.85E+17	8.74E+16	3.27E+16	2.13E+16	1.19E+16			
2) Alpha-Aktiv	ität in [Bq	[]													
BE	3.80E+18	3.48E+18	3.25E+18	2.78E+18	1.78E+18	7.13E+17	2.48E+17	1.50E+17	6.31E+16	1.42E+16	8.32E+15	5.28E+15			
F	1.32E+14	1.46E+14	1.52E+14	1.36E+14	9.06E+13	4.49E+13	2.40E+13	1.53E+13	6.68E+12	1.83E+12	2.07E+12	3.35E+12			
I	1.19E+15	1.26E+15	1.27E+15	1.15E+15	7.83E+14	3.66E+14	1.71E+14	1.04E+14	4.17E+13	9.48E+12	5.88E+12	4.42E+12			
K	1.04E+11	8.80E+10	8.07E+10	6.82E+10	4.55E+10	2.57E+10	1.62E+10	1.00E+10	3.83E+09	5.66E+08	1.55E+08	1.01E+08			
L	1.12E+13	1.45E+13	1.53E+13	1.42E+13	1.12E+13	7.24E+12	4.85E+12	4.15E+12	4.22E+12	4.78E+12	5.51E+12	5.72E+12			
S	1.68E+14	1.65E+14	1.61E+14	1.52E+14	1.23E+14	7.61E+13	5.28E+13	4.36E+13	2.80E+13	1.28E+13	1.37E+13	1.41E+13			
U	1.67E+11	1.86E+11	1.98E+11	2.05E+11	2.20E+11	2.62E+11	3.29E+11	3.69E+11	3.46E+11	2.90E+11	2.42E+11	2.35E+11			
M .	5.43E+17	3.83E+17	3.37E+17	2.87E+17	2.06E+17	7.10E+16	8.52E+15	3.71E+15	1.42E+15	4.94E+14	6.16E+14	6.48E+14			
Summe	4.35E+18	3.86E+18	3.59E+18	3.07E+18	1.99E+18	7.85E+17	2.56E+17	1.54E+17	6.46E+16	1.47E+16	8.96E+15	5.95E+15			
3) Beta/Gamma-	Aktivität i	in [Bq]													
-,,															
BE	1.09E+20	4.79E+19	2.90E+19	8.82E+18	1.82E+17	2.85E+16	2.58E+16	2.04E+16	1.52E+16	1.26E+16	9.14E+15	4.60E+15			
F	4.47E+15	3.14E+15	2.69E+15	7.64E+14	1.01E+13	1.41E+12	1.40E+12	1.38E+12	1.36E+12	1.38E+12	1.77E+12	2.51E+12			
I	4.70E+15	1.96E+15	1.44E+15	1.44E+14	1.42E+13	1.42E+13	1.42E+13	1.41E+13	1.38E+13	1.24E+13	8.46E+12	3.24E+12			
K	8.20E+15	4.93E+15	3.95E+15	2.48E+15	5.65E+14	4.33E+13	3.89E+13	3.57E+13	2.93E+13	1.53E+13	2.47E+12	1.98E+10			

Herkunftskat.	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a		
L	4.64E+13	4.33E+13	4.29E+13	3.41E+13	3.08E+13	-2.82E+13	2.23E+13	1.11E+13	3.86E+12	3.60E+12	4.01E+12	4.06E+12		
S	2.14E+17	1.48E+17	1.23E+17	8.18E+16	1.97E+16	1.66E+15	1.31E+15	8.10E+14	4.06E+14	2.00E+14	4.84E+13	1.08E+13		
U	1.44E+12	1.92E+12	2.11E+12	7.34E+11	4.32E+11	4.39E+11	4.38E+11	3.54E+11	2.60E+11	2.14E+11	1.80E+11	1.74E+11		
M	4.32E+19	2.14E+19	1.34E+19	4.26E+18	8.29E+16	1.27E+16	1.16E+16	9.51E+15	7.19E+15	5.26E+15	3.09E+15	1.33E+15		
Summe	1.53E+20	6.94E+19	4.26E+19	1.32E+19	2.85E+17	4.29E+16	3.87E+16	3.08E+16	2.28E+16	1.81E+16	1.23E+16	5.95E+15		
4) Aktivität der Aktiniden in [Bq]														
BE	2.25E+19	7.90E+18	4.95E+18	2.95E+18	1.80E+18	7.26E+17	2.58E+17	1.56E+17	6.60E+16	1.79E+16	1.29E+16	8.29E+15		
F	5.52E+14	3.83E+14	3.55E+14	1.55E+14	9.15E+13	4.58E+13	2.49E+13	1.63E+13	7.68E+12	3.02E+12	3.80E+12	5.85E+12		
I	5.86E+15	3.20E+15	2.69E+15	1.28E+15	7.84E+14	3.67E+14	1.72E+14	1.06E+14	4.35E+13	1.24E+13	9.38E+12	7.15E+12		
K	2.33E+11	1.18E+11	9.25E+10	6.95E+10	4.57E+10	2.60E+10	1.64E+10	1.01E+10	3.88E+09	6.32E+08	2.37E+08	1.58E+08		
L	1.53E+13	1.93E+13	2.02E+13	1.87E+13	1.55E+13	1.11E+13	8.01E+12	6.86E+12	7.12E+12	8.17E+12	9.41E+12	9.75E+12		
S	3.48E+14	2.12E+14	1.83E+14	1.58E+14	1.27E+14	7.92E+13	5.59E+13	4.70E+13	3.22E+13	1.92E+13	2.25E+13	2.31E+13		
U	2.65E+11	2.97E+11	3.18E+11	3.32E+11	3.60E+11	4.36E+11	5.59E+11	6.31E+11	5.94E+11	5.01E+11	4.20E+11	4.09E+11		
W	5.70E+17	3.95E+17	3.46E+17	2.94E+17	2.11E+17	7.54E+16	1.22E+16	5.66E+15	1.85E+15	7.33E+14	9.78E+14	1.02E+15		
Summe	2.31E+19	8.30E+18	5.30E+18	3.25E+18	2.01E+18	8.02E+17	2.71E+17	1.62E+17	6.79E+16	1.86E+16	1.39E+16	9.35E+15		
5) Aktivität d	er Aktivier	ungs- und	Spaltprodu	ıkte in [Bo	[]									
BE	9.05E+19	4.35E+19	2.73E+19	8.65E+18	1.67E+17	1.58E+16	1.50E+16	1.40E+16	1.23E+16	8.86E+15	4.57E+15	1.59E+15		
F	4.05E+15	2.90E+15	2.48E+15	7.45E+14	9.21E+12	4.79E+11	4.58E+11	4.31E+11	3.62E+11	1.99E+11	4.48E+10	1.23E+10		
I	2.63E+13	2.14E+13	1.99E+13	1.51E+13	1.32E+13	1.31E+13	1.30E+13	1.27E+13	1.19E+13	9.50E+12	4.96E+12	5.08E+11		
K	8.20E+15	4.93E+15	3.95E+15	2.48E+15	5.65E+14	4.33E+13	3.89E+13	3.57E+13	2.93E+13	1.53E+13	2.47E+12	1.98E+10		
L	4.23E+13	3.86E+13	3.81E+13	2.96E+13	2.65E+13	2.43E+13	1.91E+13	8.34E+12	9.65E+11	1.99E+11	1.10E+11	2.21E+10		
S	2.14E+17	1.48E+17	1.23E+17	8.18E+16	1.97E+16	1.66E+15	1.31E+15	8.07E+14	4.01E+14	1.93E+14	3.97E+13	1.71E+12		
U	1.34E+12	1.81E+12	1.99E+12	6.07E+11	2.92E+11	2.65E+11	2.09E+11	9.18E+10	1.17E+10	3.30E+09	2.08E+09	4.15E+08		
W	4.32E+19	2.14E+19	1.34E+19	4.25E+18	7.74E+16	8.29E+15	7.96E+15	7.56E+15	6.76E+15	5.03E+15	2.73E+15	9.61E+14		
Summe	1.34E+20	6.50E+19	4.08E+19	1.30E+19	2.64E+17	2.58E+16	2.43E+16	2.24E+16	1.95E+16	1.41E+16	7.35E+15	2.56E+15		

C.2

Aktivität [Bq] versus Zeit [Jahre] des Gesamtinventars Gesamtaktivität in [Bq]

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	1.23E+17	2.29E+16	7.44E+15	4.50E+14	5.99E+09	5.12E-08	0.	0.	0.	0.	0.	0.
BE-10	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.87E+09	6.85E+09	6.79E+09	6.59E+09	6.04E+09	4.46E+09
C-14	2.31E+15	2.30E+15	2.30E+15	2.29E+15	2.23E+15	2.05E+15	1.61E+15	6.90E+14	6.14E+13	1.29E+10	4.01E-01	0.
NA-22	5.04E+10	4.96E+10	4.96E+10	8.14E+04	0.	0.	0.	0.	0.	0.	0.	0.
AL-26	1.49E+03	1.97E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.11E+03	2.07E+03	1.94E+03	1.60E+03	8.11E+02
SI-32	6.97E+07	6.66E+07	6.46E+07	5.98E+07	4.39E+07	1.49E+07	6.86E+05	1.43E+01	0.	0.	0.	0.
P-32	8.94E+08	2.73E+08	2.71E+08	5.98E+07	4.39E+07	1.49E+07	6.86E+05	1.43E+01	0.	0.	0.	0.
P-33	1.51E+06	3.77E+05	3.77E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.46E+09	1.40E+09	1.40E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	8.12E+12	8.12E+12	8.13E+12	8.12E+12	8.12E+12	8.11E+12	8.07E+12	7.94E+12	7.58E+12	6.45B+12	4.07E+12	8.13E+11
AR-37	6.79E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AR-39	3.54E+11	3.28E+11	3.11E+11	2.74E+11	1.64E+11	2.69E+10	1.56E+08	2.28E+00	0.	0.	0.	0.
AR-42	1.24E+02	6.58E+01	4.32E+01	1.51E+01	2.27E-01	9.33E-08	0.	0.	0.	0.	0.	0.
K-40	8.22E+08	1.05E+09	1.12E+09									
K-42	1.24E+02	6.58E+01	4.32E+01	1.51E+01	2.27E-01	0.	0.	0.	0.	0.	0.	0.
CA-41	2.94E+11	2.97E+11	2.98E+11	2.98E+11	2.98E+11	2.96E+11	2.92E+11	2.79E+11	2.43E+11	1.51E+11	3.89E+10	3.34E+08
CA-45	5.61E+08	1.78E+08	1.78E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	1.34E+08	9.98E+07	9.98E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48	6.42E+06	1.60E+06	1.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	1.97E+01											
CR-51	1.22E+10	3.17E+09	3.17E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.85E+14	5.37E+10	5.37E+10	1.12E-07	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.65E+17	7.68E+13	2.81E+12	7.48E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	1.37E+08	1.37E+08	1.37E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-56	1.02E+05	2.54E+04	2.54E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.92E+12	1.92E+12	1.92E+12	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	2.40E+08	1.14E+08	1.14E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	3.85E+17	7.46E+15	5.46E+14	7.60E+11	2.86E+00	0.	0.	0.	0.	0.	0.	0.
NI-59	7.50E+15	7.50E+15	7.50E+15	7.49E+15	7.48E+15	7.43E+15	7.29E+15	6.84E+15	5.68E+15	2.98E+15	4.69E+14	7.27E+11
NI-63	8.98E+17	7.23E+17	6.26E+17	4.36E+17	1.03E+17	6.57E+14	3.52E+08	0.	0.	0.	0.	0.
ZN-65	1.86E+12	6.56E+08	6.56E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
GA-67	5.17E+02	1.29E+02	1.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-75	8.31E+07	2.08E+07	2.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	6.74E+13	6.74E+13	6.74E+13	6.74E+13	6.73E+13	6.72E+13	6.69E+13	6.58E+13	6.28E+13	5.33E+13	3.33E+13	6.43E+12
BR-82	3.60E+07	8.99E+06	8.99E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
KR-81	2.44E+08	2.44E+08	2.44E+08	2.44E+08	2.43E+08	2.43E+08	2.41E+08	2.36E+08	2.21E+08	1.75E+08	9.05E+07	8.96E+06
KR-85	8.38E+17	1.20E+17	3.30E+16	1.30E+15	3.15E+09	0.	0.	0.	0.	0.	0.	0.
RB-83	3.12E+03	7.80E+02	7.80E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-84	2.92E+03	7.29E+02	7.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-86	8.94E+07	2.24E+07	2.24E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-87	1.61E+10											
SR-85	4.59E+08	1.15E+08	1.15E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-89	8.85E+07	7.54E+07	7.54E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	2.67E+19	1.31E+19	8.11E+18	2.47E+18	2.11E+16	1.23E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
Y-88	7.26E+06	1.82E+06	1.82E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
Y-90	2.67E+19	1.31E+19	8.11E+18	2.47E+18	2.11E+16	1.23E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
Y-91	1.30E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ZR-93	1.48E+15	1.47E+15	1.46E+15	1.42E+15	1.29E+15	9.41E+14						
ZR-95	4.49E+11	4.48E+11	4.48E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-91	8.26E+03	8.01E+03	7.85E+03	7.46E+03	6.08E+03	2.98E+03	3.88E+02	3.09E-01	4.30E-10	0.	0.	0.
NB-93M	1.04E+15	1.31E+15	1.36E+15	1.40E+15	1.41E+15	1.41E+15	1.40E+15	1.40E+15	1.39E+15	1.34E+15	1.23E+15	8.94E+14
NB-94	9.57E+14	9.56E+14	9.56E+14	9.54E+14	9.47E+14	9.25E+14	8.64E+14	6.80E+14	3.44E+14	3.15E+13	3.41E+10	1.42E+00
NB-95	5.22E+11	5.19E+11	5.19E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	1.12E+08	1.03E+08	1.03E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
MO-93	1.85E+13	1.84E+13	1.83E+13	1.82E+13	1.74E+13	1.52E+13	1.02E+13	2.55E+12	4.86E+10	4.60E+04	0.	0.
MO-99	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95	1.92E+04	4.79E+03	4.79E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95M	8.59E+05	2.15E+05	2.15E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-98	4.26E+09	4.24E+09	4.19E+09	4.06E+09	3.61E+09							
TC-99	1.01E+16	1.01E+16	1.01E+16	1.01E+16	1.01E+16	1.00E+16	9.97E+15	9.74E+15	9.13E+15	7.27E+15	3.79E+15	3.89E+14
TC-99M	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-103	8.91E+06	3.68E+06	3.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	7.23E+16	2.33E+13	2.33E+13	2.73E-02	0.	0.	0.	0.	0.	0.	0.	0.
RH-101	9.78E+04	2.54E+04	2.44E+04	4.83E-01	0.	0.	0.	0.	0.	0.	0.	0.
RH-102	8.24E+12	6.34E+09	5.32E+07	3.43E+02	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	5.78E+06	1.07E+06	1.07E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	7.23E+16	2.33E+13	2.33E+13	2.73E-02	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	8.63E+13	8.62E+13	8.61E+13	8.54E+13	8.36E+13	7.76E+13						

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AG-108	1.07E+12	9.09E+11	8.15E+11	6.21E+11	2.08E+11	4.57E+09	8.30E+04	0.	0.	0.	0.	0.
AG-108M	1.21E+13	1.03E+13	9.24E+12	7.03E+12	2.36E+12	5.17E+10	9.40E+05	0.	0.	0.	0.	0.
AG-109M	4.82E+11	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	7.69E+11	4.58E+07	4.58E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	5.79E+13	9.26E+09	9.26E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	4.82E+11	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	4.03E+01											
CD-113M	1.21E+16	2.62E+15	9.44E+14	7.38E+13	2.76E+09	8.85E-07	0.	0.	0.	0.	0.	0.
CD-115M	6.62E+05	1.65E+05	1.65E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-111	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.42E+10	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114	3.67E+05	9.17E+04	9.17E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	3.84E+05	9.59E+04	9.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	1.02E+04											
IN-115M	4.54E+01	1.13E+01	1.13E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-113	1.42E+10	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-117M	6.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.88E+14	2.04E+03	4.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121	1.13E+05	1.16E+05	1.04E+05	5.58E+04	4.49E+03	6.62E-01	0.	0 -	0.	0.	0.	0.
SN-121M	3.87E+14	2.65E+14	2.06E+14	1.10E+14	8.82E+12	1.30E+09	1.47E-02	0.	0.	0.	0.	0.
SN-123	2.15E+11	2.86E+02	2.86E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-125	1.27E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	5.64E+14	5.64E+14	5.64E+14	5.64E+14	5.63E+14	5.60E+14	5.52E+14	5.26E+14	4.58E+14	2.82E+14	7.05E+13	5.51E+11
SB-124	1.39E+06	3.03E+05	3.03E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	8.40E+16	5.60E+13	1.01E+13	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	7.89E+13	7.89E+13	7.89E+13	7.89E+13	7.88E+13	7.84E+13	7.73E+13	7.37E+13	6.41E+13	3.95E+13	9.87E+12	7.71E+10
SB-126M	5.64E+14	5.64E+14	5.64E+14	5.64E+14	5.63E+14	5.60E+14	5.52E+14	5.26E+14	4.58E+14	2.82E+14	7.05E+13	5.51E+11
TE-123	2.20E+03											
TE-123M	2.62E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.05E+16	1.36E+13	2.46E+12	9.10E+06	0.	0.	0.	0.	0.	0.	0.	0.
TE-127	9.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-127M	9.70E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	1.69E+04	1.80E+01	1.80E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129M	2.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	6.28E+08	1.57E+08	1.57E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.51E+13	1.50E+13	1.50E+13	1.49E+13	1.44E+13							
J-131	1.62E+07	4.08E+06	4.08E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
XE-127	1.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	1.06E+04	2.64E+03	2.64E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	3.60E+17	3.07E+13	1.57E+13	7.87E+05	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	3.12E+14	3.12E+14	3.12E+14	3.12E+14	3.12B+14	3.12E+14	3.12E+14	3.11E+14	3.09E+14	3.03E+14	2.85E+14	2.31E+14
CS-136	7.73E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	3.88E+19	1.94E+19	1.22E+19	3.85E+18	3.79E+16	3.58E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
BA-133	1.06E+09	4.32E+08	2.82E+08	1.12E+07	2.77E+01	0.	0.	0.	0.	0.	0.	0.
BA-137M	3.67E+19	1.83E+19	1.16E+19	3.64E+18	3.58E+16	3.39E+09	2.75E+03	1.05E+03	1.38E+02	7.62E+01	5.76E+01	2.95E+01
BA-140	5.15E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LA-138	7.96E+04											
LA-140	5.93E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-139	1.32E+07	3.30E+06	3.30E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	6.85E+07	1.69E+07	1.69E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-142	4.27E+04											
CE-144	3.81E+16	2.97E+12	2.97E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-143	1.81E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.81E+16	2.97E+12	2.97E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.57E+14	3.52E+10	3.52E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	1.20E+06											
ND-147	7.61E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-145	3.78E+08	1.17E+08	5.34E+07	7.54E+06	2.99E+03	3.50E-09	0.	0.	0.	0.	0.	0.
PM-146	9.72E+13	2.22E+12	1.78E+11	3.27E+08	3.70E-03	0.	0.	0.	0.	0.	0.	0.
PM-147	6.00E+17	2.21E+14	5.10E+12	9.34E+06	0,	0.	0.	0.	0.	0.	0.	0.
PM-148	6.17E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-148M	1.10E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-146	1.57E+08	1.59E+08	1.58E+08									
SM-147	3.48E+09	3.50E+09										
SM-148	3.98E+04											
SM-149	5.97E+02											
SM-151	2.03E+17	1.61E+17	1.38E+17	9.40E+16	2.01E+16	9.18E+13	1.87E+07	0.	0.	0.	0.	0.
EU-149	1.08E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EU-150	7.27E+09	3.96E+09	2.64E+09	9.57E+08	1.66E+07	1.15E+01	0.	0.	0.	0.	0.	0.
EU-152	1.28E+15	2.69E+14	9.49E+13	7.06E+12	2.16E+08	3.24E-08	0.	0.	0.	0.	0.	0.
EU-154	9.73E+17	9.16E+16	1.90E+16	3.69E+14	5.32E+07	0.	0.	0.	0.	0.	0.	0.
EU-155	1.86E+17	2.81E+15	1.71E+14	1.58E+11	1.15E-01	0.	0.	0.	0.	0.	0.	0.
EU-156	2.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
GD-152	1.25E+03	1.28E+03	1.29E+03									
GD-153	1.42E+12	5.37E+06	5.37E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-157	5.03E+08	4.38E+08	3.99E+08	3.17E+08	1.26E+08	4.95E+06	4.81E+02	0.	0.	0.	0.	0.
TB-160	1.33E+08	3.11E+07	3.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	3.48E+12	3.42E+12	3.38E+12	3.28E+12	2.93E+12	1.95E+12	6.15E+11	1.08E+10	1.04E+05	0.	0.	0.
TM-170	7.03E+06	1.33E+06	1.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-171	2.02E+09	4.30E+04	2.99E+03	4.32E-05	0.	0.	0.	0.	0.	0.	0.	0.
YB-169	1.17E+03	2.91E+02	2.91E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	2.07E+04											
LU-177	8.67E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	3.78E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-175	1.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.20E+08	3.00E+07	3.00E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	4.08E+08	4.07E+08	4.05E+08	3.99E+08	3.78E+08							
TA-179	6.76E+09	1.69E+09	1.69E+09	7.34E+00	0.	0.	0.	0.	0.	0.	0.	0.
TA-180	1.39E+02											
TA-182	2.11E+10	4.09E+08	4.09E+08	4.08E+08	4.08E+08	4.08E+08	4.08E+08	4.08E+08	4.07E+08	4.05E+08	3.99E+08	3.78E+08
W-181	2.95E+08	3.73E+07	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-185	2.90E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-188	4.16E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-186	1.84E+03	4.61E+02	4.61E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	5.34E+07	5.34B+07	5.34E+07	5.34E+07	5.34E+07	5.34E+07						
RE-188	4.21E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-186	4.74E-13	6.38E-13	6.91E-13	6.93E-13								
OS-191	1.16E+08	2.91E+07	2.91E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-194	4.68E+04	1.46E+03	1.45E+02	4.50E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	6.18E+07	3.42E+07	3.28E+07	2.11E+07	1.19E+07	1.59E+06	5.03E+03	9.08E-06	0.	0.	0.	0.
IR-192M	2.81E+07	2.58E+07	2.43E+07	2.11E+07	1.19E+07	1.58E+06	5.03E+03	9.08E-06	0.	0.	0.	0.
IR-194	4.68E+04	1.46E+03	1.45E+02	4.50E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.87E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	2.72E+08	2.61E+08	2.53E+08	2.36E+08	1.79E+08	6.79E+07	4.24E+06	2.59E+02	2.30E-10	0.	0.	0.
PT-197	5.27E+07	1.32E+07	1.32E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-197	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	6.98E+07	5.60E+07	5.60E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-201	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-204	1.20E+12	5.57E+09	6.26E+08	6.58E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	1.24E+07	1.26E+07	1.27E+07	1.28E+07	1.29E+07	1.46E+07	2.77E+07	1.01E+08	3.00E+08	7.04E+08	7.95E+08	2.80E+08

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-207	5.56E+10	7.76E+10	8.72E+10	1.01E+11	1.30E+11	2.27E+11	5.02E+11	1.44E+12	3.86E+12	8.77E+12	1.08E+13	1.08E+13
TL-208	7.86E+12	6.10E+12	5.09E+12	3.22E+12	6.52E+11	2.14E+11	2.13E+11	2.13E+11	2.13E+11	2.13E+11	2.14E+11	2.16E+11
TL-209	4.27E+09	7.12E+09	9.03E+09	1.38E+10	3.26E+10	9.69E+10	2.73E+11	8.32E+11	2.18E+12	5.78E+12	1.12E+13	1.24E+13
TL-210	7.31E+07	9.74E+07	1.05E+08	1.03E+08	9.59E+07	7.46E+07	4.32E+07	4.20E+07	1.06E+08	2.58E+08	3.96E+08	4.14E+08
PB-204	2.78E-01	2.79E-01										
PB-205	7.31E+06	7.30E+06	7.28E+06	7.21E+06	6.97E+06							
PB-207M	1.64E+07	1.45E+07	1.20E+07	4.45E+06	8.48E+04	8.08E-02	0.	0.	0.	0.	0.	0.
PB-209	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
PB-210	1.82E+11	3.39E+11	4.11E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
PB-211	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
PB-212	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
PB-214	3.49E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
BI-207	1.95E+07	1.73E+07	1.42E+07	5.29E+06	1.01E+05	9.60E-02	0.	0.	0.	0.	0.	0.
BI-208	1.75E+07	1.75E+07	1.75E+07	1.75E+07	1.75E+07	1.74E+07	1.74E+07	1.72E+07	1.65E+07	1.45E+07	9.93E+06	2.66E+06
BI-210	1.82E+11	3.39E+11	4.11E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
BI-210M	1.22E+07	1.21E+07	1.19E+07	1.14E+07	9.67E+06							
BI-211	5.58B+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
BI-212	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
BI-213	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
BI-214	3.50E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
BI-215	1.12E+04	1.89E+04	2.23E+04	2.59E+04	2.72E+04	2.82E+04	3.12E+04	4.06E+04	6.14E+04	9.29E+04	1.02E+05	1.02E+05
PO-208	4.25E+04	1.09E+04	1.06E+04	6.81E-02	0.	0.	0.	0.	0.	0.	0.	0.
PO-210	1.79E+11	3.37E+11	4.09E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
PO-211	1.56E+08	2.17E+08	2.44E+08	2.82E+08	3.64E+08	6.36E+08	1.41E+09	4.05E+09	1.08E+10	2.46E+10	3.03E+10	3.04E+10
PO-212	1.40E+13	1.09E+13	9.07E+12	5.74E+12	1.16E+12	3.81E+11	3.80E+11	3.80E+11	3.80E+11	3.80E+11	3.81E+11	3.85E+11
PO-213	1.93E+11	3.23E+11	4.09E+11	6.24E+11	1.48E+12	4.39E+12	1.24E+13	3.77E+13	9.86E+13	2.62E+14	5.07E+14	5.61E+14
PO-214	3.49E+11	4.68E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.88E+13	2.22E+14	5.33E+14	6.02E+14	2.08E+14
PO-215	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
PO-216	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
PO-218	3.49B+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
AT-215	3.21B+04	5.39E+04	6.39E+04	7.43E+04	7.78E+04	8.08E+04	8.93E+04	1.16E+05	1.76E+05	2.66E+05	2.93E+05	2.93E+05
AT-217	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
AT-218	6.96E+07	9.28E+07	1.00E+08	9.84E+07	9.13E+07	7.11E+07	4.11E+07	4.00E+07	1.01E+08	2.46E+08	3.77E+08	3.94E+08
AT-219	1.16E+04	1.94E+04	2.30E+04	2.68E+04	2.80E+04	2.91E+04	3.21E+04	4.19E+04	6.33E+04	9.57E+04	1.06E+05	1.06E+05
RN-217	3.09E+02	7.65E+02	1.12E+03	2.12E+03	7.48E+03	4.35E+04	2.91E+05	2.43E+06	1.30E+07	4.96E+07	1.06E+08	1.20E+08
RN-218	6.96E+04	9.28E+04	1.00E+05	9.84E+04	9.13E+04	7.11E+04	4.11E+04	4.00E+04	1.01E+05	2.46E+05	3.78E+05	3.97E+05
RN-219	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-220	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
RN-222	3.50E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
FR-221	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
FR-223	7.71E+08	1.08E+09	1.21E+09	1.39E+09	1.80E+09	3.14E+09	6.95E+09	2.00E+10	5.34E+10	1.21E+11	1.49E+11	1.50E+11
RA-223	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
RA-224	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
RA-225	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
RA-226	3.56E+11	4.70E+11	5.10E+11	5.14E+11	6.14E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
RA-228	3.89E+11	5.37E+11	5.79E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
AC-225	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
AC-227	5.59E+10	7.79E+10	8.75E+10	1.01E+11	1.31E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
AC-228	3.89E+11	5.37E+11	5.79E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
TH-227	5.51E+10	7.68E+10	8.62E+10	9.96E+10	1.29E+11	2.24E+11	4.96E+11	1.43E+12	3.82E+12	8.67E+12	1.07E+13	1.07E+13
TH-228	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
TH-229	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
TH-230	2.32E+11	4.03E+11	5.31E+11	8.83E+11	2.56E+12	9.04E+12	2.74E+13	8.84E+13	2.37E+14	5.39E+14	6.01E+14	2.08E+14
TH-231	6.65E+12	6.66E+12	6.67E+12	6.67E+12	6.70E+12	6.78E+12	6.99E+12	7.68E+12	9.06E+12	1.06E+13	1.08E+13	1.08E+13
TH-232	4.46E+11	5.54E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11						
TH-234	1.29E+14	1.30E+14										
PA-231	8.41E+10	9.50E+10	1.00E+11	1.07E+11	1.35E+11	2.32E+11	5.08E+11	1.45E+12	3.88E+12	8.80E+12	1.08E+13	1.08E+13
PA-232	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.33E+06	4.29E+06	4.16E+06	3.81E+06	2.78E+06	1.14E+06	4.97E+04
PA-233	2.31E+14	2.52E+14	2.67E+14	3.03E+14	4.24E+14	6.39E+14	7.39E+14	7.42E+14	7.37E+14	7.21E+14	6.75E+14	5.38E+14
PA-234	1.69E+11	1.70E+11	1.70E+11	1.69E+11								
PA-234M	1.29E+14	1.30E+14										
U-232	2.12E+13	1.60E+13	1.32E+13	8.15E+12	1.19E+12	1.65E+09	2.42E+08	2.34E+08	2.14E+08	1.57E+08	6.40E+07	2.80E+06
U-233	4.70E+13	4.70E+13	4.70E+13	4.71E+13	4.73E+13	4.89E+13	5.47E+13	7.54E+13	1.31E+14	2.88E+14	5.25E+14	5.72E+14
U-234	5.80E+14	6.77E+14	7.30E+14	8.31E+14	9.98E+14	1.04E+15	1.04E+15	1.02E+15	9.69E+14	8.18E+14	5.20E+14	1.83E+14
U-235	6.65E+12	6.66E+12	6.67E+12	6.67E+12	6.70E+12	6.78E+12	6.99E+12	7.68E+12	9.06E+12	1.06E+13	1.08E+13	1.08E+13
U-236	1.20E+14	1.20E+14	1.20E+14	1.21E+14	1.21E+14	1.24E+14	1.32E+14	1.48E+14	1.60E+14	1.62E+14	1.61E+14	1.58E+14
U-237	4.58E+14	1.08E+14	4.13E+13	3.73E+12	4.64E+09	4.15E+09	3.53E+09	1.99E+09	3.90E+08	1.29E+06	1.07E-01	0.
U-238	1.29E+14	1.30E+14										
U-240	3.34E+08	3.33E+08										
NP-235	1.18E+09	5.54E+00	1.56E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	2.72E+09	2.72E+09	2.72E+09	2.72E+09	2.72E+09	2.71E+09	2.68E+09	2.60E+09	2.38E+09	1.74E+09	7.11E+08	3.11E+07
NP-237	2.31E+14	2.52E+14	2.67E+14	3.03E+14	4.24E+14	6.39E+14	7.39E+14	7.42E+14	7.37E+14	7.21E+14	6.75E+14	5.38E+14
NP-238	3.23E+13	2.79E+13	2.53E+13	1.98E+13	7.39E+12	2.37E+11	1.27E+07	0.	0.	0.	0.	0.
NP-239	1.75E+16	1.74E+16	1.74E+16	1.73E+16	1.70E+16	1.59E+16	1.32E+16	6.84E+15	1.05E+15	1.46E+12	1.43E+08	1.39E+08

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
NP-240	2.00E+01	2.01E+01	1.99E+01									
NP-240M	3.34E+08	3.33E+08										
PU-236	4.28E+12	3.15E+09	2.63E+08	2.40E+08	2.40E+08	2.39E+08	2.37E+08	2.30E+08	2.10E+08	1.54E+08	6.29E+07	2.75E+06
PU-237	3.95E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PU-238	1.28E+18	1.01E+18	8.65E+17	5.84E+17	1.22E+17	5.83E+14	6.16E+09	6.92E-06	0.	0.	0.	0.
PU-239	1.17E+17	1.17E+17	1.17E+17	1.17E+17	1.16E+17	1.14E+17	1.09E+17	9.07E+16	5.22E+16	7.01E+15	2.21E+13	1.39E+08
PU-240	1.49E+17	1.50E+17	1.50E+17	1.49E+17	1.46E+17	1.36E+17	1.10E+17	5.23E+16	6.28E+15	3.76E+12	3.34E+08	3.33E+08
PU-241	1.87E+19	4.41E+18	1.68E+18	1.52E+17	1.89E+14	1.69E+14	1.44E+14	8.13E+13	1.59E+13	5.28E+10	4.35E+03	0.
PU-242	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.11E+15	1.10E+15	1.06E+15	9.31E+14	6.44E+14	1.77E+14
PU-243	1.45E+08	1.44E+08	1.43E+08	1.39E+08								
PU-244	3.35E+08	3.33E+08										
PU-246	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.47E-03	0.	0.
AM-241	1.91E+18	2.29E+18	2.30E+18	2.17E+18	1.58E+18	5.15E+17	2.10E+16	8.59E+13	1.68E+13	5.56E+10	4.58E+03	0.
AM-242	7.00E+15	6.04E+15	5.48E+15	4.28E+15	1.60E+15	5.13E+13	2.76E+09	5.48E-07	0.	0.	0.	0.
AM-242M	7.04E+15	6.08E+15	5.51E+15	4.31E+15	1.61E+15	5.16E+13	2.77E+09	3.15E-06	0.	0.	0.	0.
AM-243	1.75E+16	1.74E+16	1.74E+16	1.73E+16	1.70E+16	1.59E+16	1.32E+16	6.84E+15	1.05E+15	1.46E+12	1.43E+08	1.39E+08
AM-244	3.12E+11	3.12E+11	3.12E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-245	2.68E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.43E-03	0.	0.
CM-242	5.84E+15	5.02E+15	4.55E+15	3.56E+15	1.33E+15	4.26E+13	2.29E+09	2.60E-06	0.	0.	0.	0.
CM-243	9.48E+15	4.57E+15	2.81E+15	8.33E+14	6.43E+12	2.60E+05	0.	0.	0.	0.	0.	0.
CM-244	8.53E+17	2.71E+17	1.26E+17	1.86E+16	8.80E+12	2.04E+01	0.	0.	0.	0.	0.	0.
CM-245	1.83E+14	1.83E+14	1.83E+14	1.82E+14	1.79E+14	1.69E+14	1.44E+14	8.12E+13	1.59E+13	5.27B+10	4.34E+03	0.
CM-246	4.42E+13	4.40E+13	4.39E+13	4.36E+13	4.23E+13	3.82E+13	2.85E+13	1.02E+13	5.46E+11	1.92E+07	3.62E-06	0.
CM-247	1.45E+08	1.44E+08	1.43E+08	1.39E+08								
CM-248	4.07E+08	4.07E+08	4.07E+08	4.07E+08	4.07E+08	4.07E+08	4.05E+08	3.99E+08	3.83E+08	3.32E+08	2.21E+08	5.28E+07
CM-250	9.58E+01	9.56E+01	9.54E+01	9.51E+01	9.36E+01	8.87E+01	7.60E+01	4.44E+01	9.50E+00	4.33E-02	8.85E-09	0.
BK-249	1.85E+08	9.12E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	2.07E+03	2.11E+02	2.11E+02	2.95E+01	2.90E+01	2.75E+01	2.36E+01	1.37E+01	2.95E+00	1.34E-02	0.	0.
CF-249	4.43E+09	4.18E+09	4.01E+09	3.64E+09	2.45E+09	6.13E+08	1.17E+07	1.14E+01	0.	0.	0.	0.
CF-250	6.72E+09	1.37E+09	4.75E+08	3.36E+07	8.68E+02	2.75E+01	2.36E+01	1.38E+01	2.95E+00	1.34E-02	2.65E-09	0.
CF-251	1.43E+08	1.40E+08	1.38E+08	1.32E+08	1.13E+08	6.61E+07	1.41E+07	6.36E+04	1.26E-02	0.	0.	0.
CF-252	4.41E+08	1.04E+06	8.57E+05	1.79E+00	0.	0.	0.	0.	0.	0.	0.	0.
CF-254	6.87E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	2.05E+03	1.82E+02	1.82E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	1.57E+20	7.33E+19	4.61E+19	1.62E+19	2.27E+18	8.28E+17	2.95E+17	1.85E+17	8.74E+16	3.27E+16	2.13E+16	1.19E+16

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] des Gesamtinventars Alpha-Aktivität in [Bq]

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-142	4.27E+04											
ND-144	1.20E+06											
SM-146	1.57E+08	1.59E+08	1.58E+08									
SM-147	3.48E+09	3.50E+09										
SM-148	3.98E+04											
SM-149	5.97E+02											
GD-152	1.25E+03	1.28E+03	1.29E+03									
OS-186	4.74E-13	6.38E-13	6.91E-13	6.93E-13								
PB-204	2.78E-01	2.79E-01										
BI-210	2.36E+05	4.41E+05	5.34E+05	6.37E+05	7.67E+05	2.49E+06	1.56E+07	8.91E+07	2.88E+08	6.93E+08	7.83E+08	2.71E+08
BI-210M	1.21E+07	1.20E+07	1.19E+07	1.13E+07	9.63E+06							
BI-211	5.56E+10	7.76E+10	8.72E+10	1.01E+11	1.30E+11	2.27E+11	5.02E+11	1.44E+12	3.86E+12	8.77E+12	1.08E+13	1.08E+13
BI-212	7.86E+12	6.10E+12	5.09E+12	3.22E+12	6.52E+11	2.14E+11	2.13E+11	2.13E+11	2.13E+11	2.13E+11	2.14E+11	2.16E+11
BI-213	4.26E+09	7.12E+09	9.03E+09	1.38E+10	3.26E+10	9.69E+10	2.73E+11	8.32E+11	2.18E+12	5.78E+12	1.12E+13	1.24E+13
BI-214	7.34E+07	9.84E+07	1.07E+08	1.08E+08	1.29E+08	4.22E+08	2.56E+09	1.45E+10	4.65E+10	1.12E+11	1.27E+11	4.37E+10
PO-208	4.25E+04	1.09E+04	1.06E+04	6.81E-02	0.	0.	0.	0.	0.	0.	0.	0.
PO-210	1.79E+11	3.37E+11	4.09E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
PO-211	1.56E+08	2.17E+08	2.44E+08	2.82E+08	3.64E+08	6.36E+08	1.41E+09	4.05E+09	1.08E+10	2.46E+10	3.03E+10	3.04E+10
PO-212	1.40E+13	1.09E+13	9.07E+12	5.74E+12	1.16E+12	3.81E+11	3.80E+11	3.80E+11	3.80E+11	3.80E+11	3.81E+11	3.85E+11
PO-213	1.93E+11	3.23E+11	4.09E+11	6.24E+11	1.48E+12	4.39E+12	1.24E+13	3.77E+13	9.86E+13	2.62E+14	5.07E+14	5.61E+14
PO-214	3.49E+11	4.68E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.88E+13	2.22E+14	5.33E+14	6.02E+14	2.08E+14
PO-215	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
PO-216	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
PO-218	3.49E+11	4.68E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
AT-215	3.21E+04	5.39E+04	6.39E+04	7.43E+04	7.78E+04	8.08E+04	8.93E+04	1.16E+05	1.76E+05	2.66E+05	2.93E+05	2.93E+05
AT-217	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
AT-218	6.95E+07	9.27E+07	9.99E+07	9.83E+07	9.12E+07	7.10E+07	4.11E+07	4.00E+07	1.01E+08	2.46E+08	3.77E+08	3.93E+08
AT-219	1.12E+04	1.89E+04	2.23E+04	2.59E+04	2.72E+04	2.82E+04	3.12E+04	4.06E+04	6.14E+04	9.29E+04	1.02E+05	1.02E+05
RN-217	3.09E+02	7.65E+02	1.12E+03	2.12E+03	7.48E+03	4.35E+04	2.91E+05	2.43E+06	1.30E+07	4.96E+07	1.06E+08	1.20E+08
RN-218	6.96E+04	9.28E+04	1.00E+05	9.84E+04	9.13E+04	7.11E+04	4.11E+04	4.00E+04	1.01E+05	2.46B+05	3.78E+05	3.97E+05
RN-219	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-220	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
RN-222	3.50E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
FR-221	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
FR-223	4.63E+04	6.45E+04	7.24E+04	8.37E+04	1.08E+05	1.88E+05	4.17E+05	1.20E+06	3.21E+06	7.28E+06	8.95E+06	8.98E+06
RA-223	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
RA-224	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
RA-226	3.56E+11	4.70E+11	5.10E+11	5.14E+11	6.14E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
AC-225	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
AC-227	7.71E+08	1.08E+09	1.21E+09	1.39E+09	1.80E+09	3.14E+09	6.95E+09	2.00E+10	5.34E+10	1.21E+11	1.49E+11	1.50E+11
TH-227	5.51E+10	7.68E+10	8.62E+10	9.96E+10	1.29E+11	2.24E+11	4.96E+11	1.43E+12	3.82E+12	8.67E+12	1.07E+13	1.07E+13
TH-228	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
TH-229	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
TH-230	2.32E+11	4.03E+11	5.31E+11	8.83E+11	2.56E+12	9.04E+12	2.74E+13	8.84E+13	2.37E+14	5.39E+14	6.01E+14	2.08E+14
TH-232	4.46E+11	5.54E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11						
PA-231	8.41E+10	9.50E+10	1.00E+11	1.07E+11	1.35E+11	2.32E+11	5.08E+11	1.45E+12	3.88E+12	8.80E+12	1.08E+13	1.08E+13
U-232	2.12E+13	1.60E+13	1.32E+13	8.15E+12	1.19E+12	1.65E+09	2.42E+08	2.34E+08	2.14E+08	1.57E+08	6.40E+07	2.80E+06
U-233	4.70E+13	4.70E+13	4.70E+13	4.71E+13	4.73E+13	4.89E+13	5.47E+13	7.54E+13	1.31E+14	2.88E+14	5.25E+14	5.72E+14
U-234	5.80E+14	6.77E+14	7.30E+14	8.31E+14	9.98E+14	1.04E+15	1.04E+15	1.02E+15	9.69E+14	8.18E+14	5.20E+14	1.83E+14
U-235	6.65E+12	6.66E+12	6.67E+12	6.67E+12	6.70E+12	6.78E+12	6.99E+12	7.68E+12	9.06E+12	1.06E+13	1.08E+13	1.08E+13
U-236	1.20E+14	1.20E+14	1.20E+14	1.21E+14	1.21E+14	1.24E+14	1.32E+14	1.48E+14	1.60E+14	1.62E+14	1.61E+14	1.58E+14
U-238	1.29E+14	1.30E+14										
NP-235	1.65E+04	7.76E-05	2.18E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.33E+06	4.29E+06	4.16E+06	3.81E+06	2.78E+06	1.14E+06	4.97E+04
NP-237	2.31E+14	2.52E+14	2.67E+14	3.03E+14	4.24E+14	6.39E+14	7.39E+14	7.42E+14	7.37E+14	7.21E+14	6.75E+14	5.38E+14
PU-236	4.28E+12	3.15E+09	2.63E+08	2.40E+08	2.40E+08	2.39E+08	2.37E+08	2.30E+08	2.10E+08	1.54E+08	6.29E+07	2.75E+06
PU-237	1.30E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PU-238	1.28E+18	1.01E+18	8.65E+17	5.84E+17	1.22E+17	5.83E+14	6.16E+09	6.92E-06	0.	0.	0.	0.
PU-239	1.17E+17	1.17E+17	1.17E+17	1.17E+17	1.16E+17	1.14E+17	1.09E+17	9.07E+16	5.22E+16	7.01E+15	2.21E+13	1.39E+08
PU-240	1.49E+17	1.50E+17	1.50E+17	1.49E+17	1.46E+17	1.36E+17	1.10E+17	5.23E+16	6.28E+15	3.76E+12	3.34E+08	3.33E+08
PU-241	4.58E+14	1.08E+14	4.13E+13	3.72E+12	4.64E+09	4.15E+09	3.52E+09	1.99E+09	3.90E+08	1.29E+06	1.07E-01	0.
PU-242	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.11E+15	1.10E+15	1.06E+15	9.31E+14	6.44E+14	1.77E+14
PU-244	3.34E+08	3.33E+08										
AM-241	1.91E+18	2.29E+18	2.30E+18	2.17E+18	1.58E+18	5.15E+17	2.10E+16	8.59E+13	1.68E+13	5.56E+10	4.58E+03	0.
AM-242M	3.23E+13	2.79E+13	2.53E+13	1.98E+13	7.39E+12	2.37E+11	1.27E+07	1.44E-08	0.	0.	0.	0.
AM-243	1.75E+16	1.74E+16	1.74E+16	1.73E+16	1.70E+16	1.59E+16	1.32E+16	6.84E+15	1.05E+15	1.46E+12	1.43E+08	1.39E+08
CM-242	5.84E+15	5.02E+15	4.55E+15	3.56E+15	1.33E+15	4.26E+13	2.29E+09	2.60E-06	0.	0.	0.	0.
CM-243	9.46E+15	4.56E+15	2.80E+15	8.31E+14	6.41E+12	2.59E+05	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
Nakila	1.1.2030	30 a	30 a	100 a	300 a	1 000 a	3 000 a	10 000 a	30 000 a	100 000a	300 000a	I MIO a
CM-244	8.53E+17	2.71E+17	1.26E+17	1.86E+16	8.80E+12	2.04E+01	0.	0.	0.	0.	0.	0.
CM-245	1.83E+14	1.83E+14	1.83E+14	1.82E+14	1.79E+14	1.69E+14	1.44E+14	8.12E+13	1.59E+13	5.27E+10	4.34E+03	0.
CM-246	4.42E+13	4.40E+13	4.39E+13	4.36E+13	4.23E+13	3.82E+13	2.85E+13	1.02E+13	5.46E+11	1.92E+07	3.62E-06	0.
CM-247	1.45E+08	1.44E+08	1.43E+08	1.39E+08								
CM-248	3.74E+08	3.74E+08	3.74E+08	3.74E+08	3.73E+08	3.73E+08	3.71E+08	3.66E+08	3.51E+08	3.05E+08	2.02E+08	4.84E+07
CM-250	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.47E-03	7.08E-10	0.
BK-249	2.68E+03	1.32E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CF-249	4.43E+09	4.18E+09	4.01E+09	3.64E+09	2.45E+09	6.13E+08	1.17E+07	1.14E+01	0.	0.	0.	0.
CF-250	6.72E+09	1.37E+09	4.75E+08	3.36E+07	8.67E+02	2.75E+01	2.36E+01	1.38E+01	2.95E+00	1.34E-02	2.65E-09	0.
CF-251	1.43E+08	1.40E+08	1.38E+08	1.32E+08	1.13E+08	6.61E+07	1.41E+07	6.36E+04	1.26E-02	0.	0.	0.
CF-252	4.27E+08	1.00E+06	8.31E+05	1.74E+00	0.	0.	0.	0.	0.	0.	0.	0.
CF-254	2.13E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	2.05E+03	1.82E+02	1.82E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	4.35E+18	3.86E+18	3.59E+18	3.07E+18	1.99E+18	7.85E+17	2.56E+17	1.54E+17	6.46E+16	1.47E+16	8.96E+15	5.95E+15

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] des Gesamtinventars Beta/Gamma-Aktivität in [Bq]

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	1.23E+17	2.29E+16	7.44E+15	4.50E+14	5.99E+09	5.12E-08	0.	0.	0.	0.	0.	0.
BE-10	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.87E+09	6.85E+09	6.79E+09	6.59E+09	6.04E+09	4.46E+09
C-14	2.31E+15	2.30E+15	2.30E+15	2.29E+15	2.23E+15	2.05E+15	1.61E+15	6.90E+14	6.14E+13	1.29E+10	4.01E-01	0.
NA-22	5.04E+10	4.96E+10	4.96E+10	8.14E+04	0.	0.	0.	0.	0.	0.	0.	0.
AL-26	1.49E+03	1.97E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.11E+03	2.07E+03	1.94E+03	1.60E+03	8.11E+02
SI-32	6.97E+07	6.66E+07	6.46E+07	5.98E+07	4.39E+07	1.49E+07	6.86E+05	1.43E+01	0.	0.	0.	0.
P-32	8.94E+08	2.73E+08	2.71E+08	5.98E+07	4.39E+07	1.49E+07	6.86E+05	1.43E+01	0.	0.	0.	0.
P-33	1.51E+06	3.77E+05	3.77E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.46E+09	1.40E+09	1.40E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	8.12E+12	8.12E+12	8.13E+12	8.12E+12	8.12E+12	8.11E+12	8.07E+12	7.94E+12	7.58E+12	6.45E+12	4.07E+12	8.13E+11
AR-37	6.79E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AR-39	3.54E+11	3.28E+11	3.11E+11	2.74E+11	1.64E+11	2.69E+10	1.56E+08	2.28E+00	0.	0.	0.	0.
AR-42	1.24E+02	6.58E+01	4.32E+01	1.51E+01	2.27E-01	9.33E-08	0.	0.	0.	0.	0.	0.
K-40	8.22E+08	1.05E+09	1.12E+09									
K-42	1.24E+02	6.58E+01	4.32E+01	1.51E+01	2.27E-01	0.	0.	0.	0.	0.	0.	0.
CA-41	2.94E+11	2.97E+11	2.98E+11	2.98E+11	2.98E+11	2.96E+11	2.92E+11	2.79E+11	2.43E+11	1.51E+11	3.89E+10	3.34E+08
CA-45	5.61E+08	1.78E+08	1.78E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	1.34E+08	9.98E+07	9.98E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48	6.42E+06	1.60E+06	1.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	1.97E+01											
CR-51	1.22E+10	3.17E+09	3.17E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.85E+14	5.37E+10	5.37E+10	1.12E-07	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.65E+17	7.68E+13	2.81E+12	7.48E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	1.37E+08	1.37E+08	1.37E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-56	1.02E+05	2.54E+04	2.54E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.92E+12	1.92E+12	1.92E+12	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	2.40E+08	1.14E+08	1.14E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	3.85E+17	7.46E+15	5.46E+14	7.60E+11	2.86E+00	0.	0.	0.	0.	0.	0.	0.
NI-59	7.50E+15	7.50E+15	7.50E+15	7.49E+15	7.48E+15	7.43E+15	7.29E+15	6.84E+15	5.68E+15	2.98E+15	4.69E+14	7.27E+11
NI-63	8.98E+17	7.23E+17	6.26E+17	4.36E+17	1.03E+17	6.57E+14	3.52E+08	0.	0.	0.	0.	0.
ZN-65	1.86E+12	6.56E+08	6.56E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
GA-67	5.17E+02	1.29E+02	1.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-75	8.31E+07	2.08E+07	2.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	6.74E+13	6.74E+13	6.74E+13	6.74E+13	6.73E+13	6.72E+13	6.69E+13	6.58E+13	6.28E+13	5.33E+13	3.33E+13	6.43E+12
BR-82	3.60E+07	8.99E+06	8.99E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
KR-81	2.44E+08	2.44E+08	2.44E+08	2.44E+08	2.43E+08	2.43E+08	2.41E+08	2.36E+08	2.21E+08	1.75E+08	9.05E+07	8.96E+06
KR-85	8.38E+17	1.20E+17	3.30E+16	1.30E+15	3.15E+09	0.	0.	0.	0.	0.	0.	0.
RB-83	3.12E+03	7.80E+02	7.80E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-84	2.92E+03	7.29E+02	7.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-86	8.94E+07	2.24E+07	2.24E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-87	1.61E+10											
SR-85	4.59E+08	1.15E+08	1.15E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-89	8.85E+07	7.54E+07	7.54E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	2.67E+19	1.31E+19	8.11E+18	2.47E+18	2.11E+16	1.23E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
Y-88	7.26E+06	1.82E+06	1.82E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
Y-90	2.67E+19	1.31E+19	8.11E+18	2.47E+18	2.11E+16	1.23E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
Y-91	1.30E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ZR-93	1.48E+15	1.47E+15	1.46E+15	1.42E+15	1.29E+15	9.41E+14						
ZR-95	4.49E+11	4.48E+11	4.48E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-91	8.26E+03	8.01E+03	7.85E+03	7.46E+03	6.08E+03	2.98E+03	3.88E+02	3.09E-01	4.30E-10	0.	0.	0.
NB-93M	1.04E+15	1.31E+15	1.36E+15	1.40E+15	1.41E+15	1.41E+15	1.40E+15	1.40E+15	1.39E+15	1.34E+15	1.23E+15	8.94E+14
NB-94	9.57E+14	9.56E+14	9.56E+14	9.54E+14	9.47E+14	9.25E+14	8.64E+14	6.80E+14	3.44E+14	3.15E+13	3.41E+10	1.42E+00
NB-95	5.22E+11	5.19E+11	5.19E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	1.12E+08	1.03E+08	1.03E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
MO-93	1.85E+13	1.84E+13	1.83E+13	1.82E+13	1.74E+13	1.52E+13	1.02E+13	2.55E+12	4.86E+10	4.60E+04	0.	0.
MO-99	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95	1.92E+04	4.79E+03	4.79E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95M	8.59E+05	2.15E+05	2.15E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-98	4.26E+09	4.24E+09	4.19E+09	4.06E+09	3.61E+09							
TC-99	1.01E+16	1.01E+16	1.01E+16	1.01E+16	1.01E+16	1.00E+16	9.97E+15	9.74E+15	9.13E+15	7.27E+15	3.79E+15	3.89E+14
TC-99M	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-103	8.91E+06	3.68E+06	3.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	7.23E+16	2.33E+13	2.33E+13	2.73E-02	0.	0.	0.	0.	0.	0.	0.	0.
RH-101	9.78E+04	2.54E+04	2.44E+04	4.83E-01	0.	0.	0.	0.	0.	0.	0.	0.
RH-102	8.24E+12	6.34E+09	5.32E+07	3.43E+02	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	5.78E+06	1.07E+06	1.07E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	7.23E+16	2.33E+13	2.33E+13	2.73E-02	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	8.63E+13	8.62E+13	8.61E+13	8.54E+13	8.36E+13	7.76E+13						

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AG-108	1.07E+12	9.09E+11	8.15E+11	6.21E+11	2.08E+11	4.57E+09	8.30E+04	0.	0.	0.	0.	0.
AG-108M	1.21E+13	1.03E+13	9.24E+12	7.03E+12	2.36E+12	5.17E+10	9.40E+05	0.	0.	0.	0.	0.
AG-109M	4.82E+11	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	7.69E+11	4.58E+07	4.58E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	5.79E+13	9.26E+09	9.26E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	4.82E+11	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	4.03E+01											
CD-113M	1.21E+16	2.62E+15	9.44E+14	7.38E+13	2.76E+09	8.85E-07	0.	0.	0.	0.	0.	0.
CD-115M	6.62E+05	1.65E+05	1.65E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-111	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.42E+10	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114	3.67E+05	9.17E+04	9.17E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	3.84E+05	9.59E+04	9.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	1.02E+04											
IN-115M	4.54E+01	1.13E+01	1.13E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-113	1.42E+10	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-117M	6.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.88E+14	2.04E+03	4.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121	1.13E+05	1.16E+05	1.04E+05	5.58E+04	4.49E+03	6.62E-01	0.	0.	0.	0.	0.	0.
SN-121M	3.87E+14	2.65E+14	2.06E+14	1.10E+14	8.82E+12	1.30E+09	1.47E-02	0.	0.	0.	0.	0.
SN-123	2.15E+11	2.86E+02	2.86E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-125	1.27E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	5.64E+14	5.64E+14	5.64E+14	5.64E+14	5.63E+14	5.60E+14	5.52E+14	5.26E+14	4.58E+14	2.82E+14	7.05E+13	5.51E+11
SB-124	1.39E+06	3.03E+05	3.03E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	8.40E+16	5.60E+13	1.01E+13	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	7.89E+13	7.89E+13	7.89E+13	7.89E+13	7.88E+13	7.84E+13	7.73E+13	7.37E+13	6.41E+13	3.95E+13	9.87E+12	7.71E+10
SB-126M	5.64E+14	5.64E+14	5.64E+14	5.64E+14	5.63E+14	5.60B+14	5.52E+14	5.26E+14	4.58E+14	2.82E+14	7.05E+13	5.51E+11
TE-123	2.20E+03											
TE-123M	2.62E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.05E+16	1.36E+13	2.46E+12	9.10E+06	0.	0.	0.	0.	0.	0.	0.	0.
TE-127	9.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-127M	9.70E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	1.69E+04	1.80E+01	1.80E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129M	2.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	6.28E+08	1.57E+08	1.57E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.51E+13	1.50E+13	1.50E+13	1.49E+13	1.44E+13							
J-131	1.62E+07	4.08E+06	4.08E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a.	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
XE-127	1.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	1.06E+04	2.64E+03	2.64E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	3.60E+17	3.07E+13	1.57E+13	7.87E+05	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	3.12E+14	3.11E+14	3.09E+14	3.03E+14	2.85E+14	2.31E+14						
CS-136	7.73E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	3.88E+19	1.94E+19	1.22E+19	3.85E+18	3.79E+16	3.58E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
BA-133	1.06E+09	4.32E+08	2.82E+08	1.12E+07	2.77E+01	0.	0.	0.	0.	0.	0.	0.
BA-137M	3.67E+19	1.83E+19	1.16E+19	3.64E+18	3.58E+16	3.39E+09	2.75E+03	1.05E+03	1.38E+02	7.62E+01	5.76E+01	2.95E+01
BA-140	5.15E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LA-138	7.96E+04											
LA-140	5.93E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-139	1.32E+07	3.30E+06	3.30E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	6.85E+07	1.69E+07	1.69E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-144	3.81E+16	2.97E+12	2.97E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-143	1.81E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.81E+16	2.97E+12	2.97E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.57E+14	3.52E+10	3.52E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-147	7.61E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-145	3.78E+08	1.17E+08	5.34E+07	7.54E+06	2.99E+03	3.50E-09	0.	0.	0.	0.	0.	0.
PM-146	9.72E+13	2.22E+12	1.78E+11	3.27E+08	3.70E-03	0.	0.	0.	0.	0.	0.	0.
PM-147	6.00E+17	2.21E+14	5.10E+12	9.34E+06	0.	0.	0.	0.	0.	0.	0.	0.
PM-148	6.17E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-148M	1.10E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-151	2.03E+17	1.61E+17	1.38E+17	9.40E+16	2.01E+16	9.18E+13	1.87E+07	0.	0.	0.	0.	0.
EU-149	1.08E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EU-150	7.27E+09	3.96E+09	2.64E+09	9.57E+08	1.66E+07	1.15E+01	0.	0.	0.	0.	0.	0.
EU-152	1.28E+15	2.69E+14	9.49E+13	7.06E+12	2.16E+08	3.24E-08	0.	0.	0.	0.	0.	0.
EU-154	9.73E+17	9.16E+16	1.90E+16	3.69E+14	5.32E+07	0.	0.	0.	0.	0.	0.	0.
EU-155	1.86E+17	2.81E+15	1.71E+14	1.58E+11	1.15E-01	0.	0.	0.	0.	0.	0.	0.
EU-156	2.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GD-153	1.42E+12	5.37E+06	5.37E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-157	5.03E+08	4.38E+08	3.99E+08	3.17E+08	1.26E+08	4.95E+06	4.81E+02	0.	0.	0.	0.	0.
TB-160	1.33E+08	3.11E+07	3.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	3.48E+12	3.42E+12	3.38E+12	3.28E+12	2.93E+12	1.95E+12	6.15E+11	1.08E+10	1.04E+05	0.	0.	0.
TM-170	7.03E+06	1.33E+06	1.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-171	2.02E+09	4.30E+04	2.99E+03	4.32E-05	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
YB-169	1.17E+03	2.91E+02	2.91E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	2.07E+04											
LU-177	8.67E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	3.78E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-175	1.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.20E+08	3.00E+07	3.00E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	4.08E+08	4.07E+08	4.05E+08	3.99E+08	3.78E+08							
TA-179	6.76E+09	1.69E+09	1.69E+09	7.34E+00	0.	0.	0.	0.	0.	0.	0.	0.
TA-180	1.39E+02											
TA-182	2.11E+10	4.09E+08	4.09E+08	4.08E+08	4.08E+08	4.08E+08	4.08E+08	4.08E+08	4.07E+08	4.05E+08	3.99E+08	3.78E+08
W-181	2.95E+08	3.73E+07	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-185	2.90E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-188	4.16E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-186	1.84E+03	4.61E+02	4.61E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	5.34E+07											
RE-188	4.21E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-191	1.16E+08	2.91E+07	2.91E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-194	4.68E+04	1.46E+03	1.45E+02	4.50E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	6.18E+07	3.42E+07	3.28E+07	2.11E+07	1.19E+07	1.59E+06	5.03E+03	9.08E-06	0.	0.	0.	0.
IR-192M	2.81E+07	2.58E+07	2.43E+07	2.11E+07	1.19E+07	1.58E+06	5.03E+03	9.08E-06	0.	0.	0.	0.
IR-194	4.68E+04	1.46E+03	1.45E+02	4.50E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.87E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	2.72E+08	2.61E+08	2.53E+08	2.36E+08	1.79E+08	6.79E+07	4.24E+06	2.59E+02	2.30E-10	0.	0.	0.
PT-197	5.27E+07	1.32E+07	1.32E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-197	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	6.98E+07	5.60E+07	5.60E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-201	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-204	1.20E+12	5.57E+09	6.26E+08	6.58E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	1.24E+07	1.26E+07	1.27E+07	1.28E+07	1.29E+07	1.46E+07	2.77E+07	1.01E+08	3.00E+08	7.04E+08	7.95E+08	2.80E+08
TL-207	5.56E+10	7.76E+10	8.72E+10	1.01E+11	1.30E+11	2.27E+11	5.02E+11	1.44E+12	3.86E+12	8.77E+12	1.08E+13	1.08E+13
TL-208	7.86E+12	6.10E+12	5.09E+12	3.22E+12	6.52E+11	2.14E+11	2.13E+11	2.13E+11	2.13E+11	2.13E+11	2.14E+11	2.16E+11
TL-209	4.27E+09	7.12E+09	9.03E+09	1.38E+10	3.26E+10	9.69E+10	2.73E+11	8.32E+11	2.18E+12	5.78E+12	1.12E+13	1.24E+13
TL-210	7.31E+07	9.74E+07	1.05E+08	1.03E+08	9.59E+07	7.46E+07	4.32E+07	4.20E+07	1.06E+08	2.58E+08	3.96E+08	4.14E+08
PB-205	7.31E+06	7.30E+06	7.28E+06	7.21E+06	6.97E+06							
PB-207M	1.64E+07	1.45E+07	1.20E+07	4.45E+06	8.48E+04	8.08E-02	0.	0.	0.	0.	0.	0.
PB-209	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
PB-210	1.82E+11	3.39E+11	4.11E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PB-211	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
PB-212	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
PB-214	3.49E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
BI-207	1.95E+07	1.73E+07	1.42E+07	5.29E+06	1.01E+05	9.60E-02	0.	0.	0.	0.	0.	0.
BI-208	1.75E+07	1.75E+07	1.75E+07	1.75E+07	1.75E+07	1.74E+07	1.74E+07	1.72E+07	1.65E+07	1.45E+07	9.93E+06	2.66E+06
BI-210	1.82E+11	3.39E+11	4.11E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
BI-210M	4.87E+04	4.86E+04	4.84E+04	4.76E+04	4.54E+04	3.87E+04						
BI-211	1.56E+08	2.17E+08	2.44E+08	2.82E+08	3.64E+08	6.36E+08	1.41E+09	4.05E+09	1.08E+10	2.46E+10	3.03E+10	3.04E+10
BI-212	1.40B+13	1.09E+13	9.07E+12	5.74E+12	1.16E+12	3.81E+11	3.80E+11	3.80E+11	3.80E+11	3.80E+11	3.81E+11	3.85E+11
BI-213	1.93E+11	3.23E+11	4.09E+11	6.24E+11	1.48E+12	4.39E+12	1.24E+13	3.77E+13	9.86E+13	2.62E+14	5.07E+14	5.61E+14
BI-214	3.49E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.88E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
BI-215	1.12E+04	1.89E+04	2.23E+04	2.59E+04	2.72E+04	2.82E+04	3.12E+04	4.06E+04	6.14E+04	9.29E+04	1.02E+05	1.02E+05
PO-215	3.21E+04	5.39E+04	6.39E+04	7.43E+04	7.78E+04	8.08E+04	8.93E+04	1.16E+05	1.76E+05	2.66E+05	2.93E+05	2.93E+05
PO-218	6.99E+07	9.37E+07	1.02E+08	1.03E+08	1.23E+08	4.02E+08	2.44E+09	1.38E+10	4.43E+10	1.07E+11	1.21E+11	4.17E+10
AT-217	3.09E+02	7.65E+02	1.12E+03	2.12E+03	7.48E+03	4.35E+04	2.91E+05	2.43E+06	1.30E+07	4.96E+07	1.06E+08	1.20E+08
AT-218	6.96E+04	9.28E+04	1.00E+05	9.84E+04	9.13E+04	7.11E+04	4.11E+04	4.00E+04	1.01E+05	2.46E+05	3.77E+05	3.94E+05
AT-219	3.47E+02	5.83E+02	6.90E+02	8.03E+02	8.40E+02	8.73E+02	9.64E+02	1.26E+03	1.90E+03	2.87E+03	3.17E+03	3.17E+03
FR-223	7.71E+08	1.08E+09	1.21E+09	1.39E+09	1.80E+09	3.14E+09	6.95E+09	2.00E+10	5.34E+10	1.21E+11	1.49E+11	1.50E+11
RA-225	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
RA-228	3.89E+11	5.37E+11	5.79E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
AC-227	5.51E+10	7.69E+10	8.63E+10	9.97E+10	1.29E+11	2.24E+11	4.96E+11	1.43E+12	3.82E+12	8.67E+12	1.07E+13	1.07E+13
AC-228	3.89E+11	5.37E+11	5.79E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
TH-231	6.65E+12	6.66E+12	6.67E+12	6.67E+12	6.70E+12	6.78E+12	6.99E+12	7.68E+12	9.06E+12	1.06E+13	1.08E+13	1.08E+13
TH-234	1.29E+14	1.30E+14										
PA-232	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.33E+06	4.29E+06	4.16E+06	3.81E+06	2.78E+06	1.14E+06	4.97E+04
PA-233	2.31E+14	2.52E+14	2.67E+14	3.03E+14	4.24E+14	6.39E+14	7.39E+14	7.42E+14	7.37E+14	7.21E+14	6.75E+14	5.38E+14
PA-234	1.69E+11	1.70E+11	1.70E+11	1.69E+11								
PA-234M	1.29E+14	1.30E+14										
U-237	4.58E+14	1.08E+14	4.13E+13	3.73E+12	4.64E+09	4.15E+09	3.53E+09	1.99E+09	3.90E+08	1.29E+06	1.07E-01	0.
U-240	3.34E+08	3.33E+08										
NP-235	1.18E+09	5.54E+00	1.56E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	2.72E+09	2.72E+09	2.72E+09	2.71E+09	2.71E+09	2.70E+09	2.68E+09	2.60E+09	2.37E+09	1.74E+09	7.10E+08	3.10E+07
NP-238	3.23E+13	2.79E+13	2.53E+13	1.98E+13	7.39E+12	2.37E+11	1.27E+07	0.	0.	0.	0.	0.
NP-239	1.75E+16	1.74E+16	1.74E+16	1.73E+16	1.70E+16	1.59E+16	1.32E+16	6.84E+15	1.05E+15	1.46E+12	1.43E+08	1.39E+08
NP-240	2.00E+01	2.01E+01	1.99E+01									
NP-240M	3.34E+08	3.33E+08										
PU-237	3.95E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-241	1.87E+19	4.41E+18	1.68E+18	1.52E+17	1.89E+14	1.69E+14	1.44E+14	8.13E+13	1.59E+13	5.28E+10	4.35E+03	0.
PU-243	1.45E+08	1.44E+08	1.43E+08	1.39E+08								
PU-244	4.35E+05	4.33E+05										
PU-246	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.47E-03	0.	0.
AM-242	7.00E+15	6.04E+15	5.48E+15	4.28E+15	1.60E+15	5.13E+13	2.76E+09	5.48E-07	0.	0.	0.	0.
AM-242M	7.01E+15	6.05E+15	5.48E+15	4.29E+15	1.60E+15	5.14E+13	2.76E+09	3.13E-06	0.	0.	0.	0.
AM-244	3.12E+11	3.12E+11	3.12E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-245	2.68E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.43E-03	0.	0.
CM-243	2.28E+13	1.10E+13	6.74E+12	2.00E+12	1.54E+10	6.24E+02	0.	0.	0.	0.	0.	0.
CM-246	1.33E+10	1.32E+10	1.32E+10	1.31E+10	1.27E+10	1.15E+10	8.55E+09	3.07E+09	1.64E+08	5.76E+03	1.09E-09	0.
CM-248	3.36E+07	3.36E+07	3.36E+07	3.36E+07	3.36E+07	3.36E+07	3.34E+07	3.30E+07	3.16E+07	2.74E+07	1.82E+07	4.36E+06
CM-250	8.81E+01	8.79E+01	8.78E+01	8.75E+01	8.61E+01	8.16E+01	7.00E+01	4.08E+01	8.74E+00	3.98E-02	8.14E-09	0.
BK-249	1.85E+08	9.12E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	2.07E+03	2.11E+02	2.11E+02	2.95E+01	2.90E+01	2.75E+01	2.36E+01	1.37E+01	2.95E+00	1.34E-02	0.	0.
CF-250	5.38E+06	1.10E+06	3.80E+05	2.69E+04	6.94E-01	2.20E-02	1.89E-02	1.10E-02	2.36E-03	1.08E-05	2.12E-12	0.
CF-252	1.36E+07	3.20E+04	2.65E+04	5.54E-02	0.	0.	0.	0.	0.	0.	0.	0.
CF-254	6.84E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	2.18E-05	5.45E-06	5.45E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	1.53E+20	6.94E+19	4.26E+19	1.32E+19	2.85E+17	4.29E+16	3.87E+16	3.08E+16	2.28E+16	1.81E+16	1.23E+16	5.95E+15

W S 1004

Aktivität [Bq] versus Zeit [Jahre] des Gesamtinventars Aktivität der Aktiniden in [Bq]

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	2.36E+05	4.41E+05	5.34E+05	6.37E+05	7.67E+05	2.49E+06	1.56E+07	8.91E+07	2.88E+08	6.93E+08	7.83E+08	2.71E+08
TL-207	5.56E+10	7.76E+10	8.72E+10	1.01E+11	1.30E+11	2.27E+11	5.02E+11	1.44E+12	3.86E+12	8.77E+12	1.08E+13	1.08E+13
TL-208	7.86E+12	6.10E+12	5.09E+12	3.22E+12	6.52E+11	2.14E+11	2.13E+11	2.13E+11	2.13E+11	2.13E+11	2.14E+11	2.16E+11
TL-209	4.27E+09	7.12E+09	9.03E+09	1.38E+10	3.26E+10	9.69E+10	2.73E+11	8.32E+11	2.18E+12	5.78E+12	1.12E+13	1.24E+13
TL-210	7.31E+07	9.74E+07	1.05E+08	1.03E+08	9.59E+07	7.46E+07	4.32E+07	4.20E+07	1.06E+08	2.58E+08	3.96E+08	4.14E+08
PB-207M	1.64E+07	1.45E+07	1.20E+07	4.45E+06	8.48E+04	8.08E-02	0.	0.	0.	0.	0.	0.
PB-209	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
PB-210	1.82E+11	3.39E+11	4.11E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
PB-211	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
PB-212	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
PB-214	3.49E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
BI-207	1.95E+07	1.73E+07	1.42E+07	5.29E+06	1.01E+05	9.60E-02	0.	0.	0.	0.	0.	0.
BI-208	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.03E-01	2.03E-01	2.02E-01	2.00E-01	1.92E-01	1.69E-01	1.16E-01	3.09E-02
BI-210	1.82E+11	3.39E+11	4.11E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
BI-210M	7.46E-01	7.45E-01	7.41E-01	7.29E-01	6.96E-01	5.92E-01						
BI-211	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
BI-212	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
BI-213	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
BI-214	3.50E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
BI-215	1.12E+04	1.89E+04	2.23E+04	2.59E+04	2.72E+04	2.82E+04	3.12E+04	4.06E+04	6.14E+04	9.29E+04	1.02E+05	1.02E+05
PO-210	1.79E+11	3.37E+11	4.09E+11	4.90E+11	5.90E+11	1.91E+12	1.20E+13	6.86E+13	2.21E+14	5.33E+14	6.03E+14	2.08E+14
PO-211	1.56E+08	2.17E+08	2.44E+08	2.82E+08	3.64E+08	6.36E+08	1.41E+09	4.05E+09	1.08E+10	2.46E+10	3.03E+10	3.04E+10
PO-212	1.40E+13	1.09E+13	9.07E+12	5.74E+12	1.16E+12	3.81E+11	3.80E+11	3.80E+11	3.80E+11	3.80E+11	3.81E+11	3.85E+11
PO-213	1.93E+11	3.23E+11	4.09E+11	6.24E+11	1.48E+12	4.39E+12	1.24E+13	3.77E+13	9.86E+13	2.62E+14	5.07E+14	5.61E+14
PO-214	3.49E+11	4.68E+11	5.08E+11	5.14B+11	6.13E+11	2.01E+12	1.22E+13	6.88E+13	2.22E+14	5.33E+14	6.02E+14	2.08E+14
PO-215	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
PO-216	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
PO-218	3.49E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
AT-215	3.21E+04	5.39E+04	6.39E+04	7.43E+04	7.78E+04	8.08E+04	8.93E+04	1.16E+05	1.76E+05	2.66E+05	2.93E+05	2.93E+05
AT-217	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
AT-218	6.96E+07	9.28E+07	1.00E+08	9.84E+07	9.13E+07	7.11E+07	4.11E+07	4.00E+07	1.01E+08	2.46E+08	3.77E+08	3.94E+08

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AT-219	1.16E+04	1.94E+04	2.30E+04	2.68E+04	2.80E+04	2.91E+04	3.21E+04	4.19E+04	6.33E+04	9.57E+04	1.06E+05	1.06E+05
RN-217	3.09E+02	7.65E+02	1.12E+03	2.12E+03	7.48E+03	4.35E+04	2.91E+05	2.43E+06	1.30E+07	4.96E+07	1.06E+08	1.20E+08
RN-218	6.96E+04	9.28E+04	1.00E+05	9.84E+04	9.13E+04	7.11E+04	4.11E+04	4.00E+04	1.01E+05	2.46E+05	3.78E+05	3.97E+05
RN-219	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
RN-220	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
RN-222	3.50E+11	4.69E+11	5.08E+11	5.14E+11	6.13E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
FR-221	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
FR-223	7.71E+08	1.08E+09	1.21E+09	1.39E+09	1.80E+09	3.14E+09	6.95E+09	2.00E+10	5.34E+10	1.21E+11	1.49E+11	1.50E+11
RA-223	5.58E+10	7.79E+10	8.74E+10	1.01E+11	1.30E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
RA-224	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
RA-225	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
RA-226	3.56E+11	4.70E+11	5.10E+11	5.14E+11	6.14E+11	2.01E+12	1.22E+13	6.89E+13	2.22E+14	5.33E+14	6.03E+14	2.08E+14
RA-228	3.89E+11	5.37E+11	5.79E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
AC-225	1.97E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
AC-227	5.59E+10	7.79E+10	8.75E+10	1.01E+11	1.31E+11	2.28E+11	5.03E+11	1.45E+12	3.87E+12	8.80E+12	1.08E+13	1.08E+13
AC-228	3.89E+11	5.37E+11	5.79E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
TH-227	5.51E+10	7.68E+10	8.62E+10	9.96E+10	1.29E+11	2.24E+11	4.96E+11	1.43E+12	3.82E+12	8.67E+12	1.07E+13	1.07E+13
TH-228	2.19E+13	1.70E+13	1.42E+13	8.96E+12	1.81E+12	5.95E+11	5.93E+11	5.93E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11
TH-229	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.49E+12	1.26E+13	3.85E+13	1.01E+14	2.67E+14	5.18E+14	5.73E+14
TH-230	2.32E+11	4.03E+11	5.31E+11	8.83E+11	2.56E+12	9.04E+12	2.74E+13	8.84E+13	2.37E+14	5.39E+14	6.01E+14	2.08E+14
TH-231	6.65E+12	6.66E+12	6.67E+12	6.67E+12	6.70E+12	6.78E+12	6.99E+12	7.68E+12	9.06E+12	1.06E+13	1.08E+13	1.08E+13
TH-232	4.46E+11	5.54E+11	5.93E+11	5.94E+11	5.95E+11	6.01E+11						
TH-234	1.29E+14	1.30E+14										
PA-231	8.41E+10	9.50E+10	1.00E+11	1.07E+11	1.35E+11	2.32E+11	5.08E+11	1.45E+12	3.88E+12	8.80E+12	1.08E+13	1.08E+13
PA-232	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.35E+06	4.33E+06	4.29E+06	4.16E+06	3.81E+06	2.78E+06	1.14E+06	4.97E+04
PA-233	2.31E+14	2.52E+14	2.67E+14	3.03E+14	4.24E+14	6.39E+14	7.39E+14	7.42E+14	7.37E+14	7.21E+14	6.75E+14	5.38E+14
PA-234	1.69E+11	1.70E+11	1.70E+11	1.69E+11								
PA-234M	1.29E+14	1.30E+14										
U-232	2.12E+13	1.60E+13	1.32E+13	8.15E+12	1.19E+12	1.65E+09	2.42E+08	2.34E+08	2.14E+08	1.57E+08	6.40E+07	2.80E+06
U-233	4.70E+13	4.70E+13	4.70E+13	4.71E+13	4.73E+13	4.89E+13	5.47E+13	7.54E+13	1.31E+14	2.88E+14	5.25E+14	5.72E+14
U-234	5.80E+14	6.77E+14	7.30E+14	8.31E+14	9.98E+14	1.04E+15	1.04E+15	1.02E+15	9.69E+14	8.18E+14	5.20E+14	1.83E+14
U-235	6.65E+12	6.66E+12	6.67E+12	6.67E+12	6.70E+12	6.78E+12	6.99E+12	7.68E+12	9.06E+12	1.06E+13	1.08E+13	1.08E+13
U-236	1.20E+14	1.20E+14	1.20E+14	1.21E+14	1.21E+14	1.24E+14	1.32E+14	1.48E+14	1.60E+14	1.62E+14	1.61E+14	1.58E+14
U-237	4.58E+14	1.08E+14	4.13E+13	3.73E+12	4.64E+09	4.15E+09	3.53E+09	1.99E+09	3.90E+08	1.29E+06	1.07E-01	0.
U-238	1.29E+14	1.30E+14										
U-240	3.34E+08	3.33E+08										
NP-235	1.18E+09	5.54E+00	1.56E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
NP-236	2.72E+09	2.72E+09	2.72E+09	2.72E+09	2.72E+09	2.71E+09	2.68E+09	2.60E+09	2.38E+09	1.74E+09	7.11E+08	3.11E+07
NP-237	2.31E+14	2.52E+14	2.67E+14	3.03E+14	4.24E+14	6.39E+14	7.39E+14	7.42E+14	7.37E+14	7.21E+14	6.75E+14	5.38E+14
NP-238	3.23E+13	2.79E+13	2.53E+13	1.98E+13	7.39E+12	2.37E+11	1.27E+07	0.	0.	0.	0.	0.
NP-239	1.75E+16	1.74E+16	1.74E+16	1.73E+16	1.70E+16	1.59E+16	1.32E+16	6.84E+15	1.05E+15	1.46E+12	1.43E+08	1.39E+08
NP-240	2.00E+01	2.01E+01	1.99E+01									
NP-240M	3.34E+08	3.33E+08										
PU-236	4.28E+12	3.15E+09	2.63E+08	2.40E+08	2.40E+08	2.39E+08	2.37E+08	2.30E+08	2.10E+08	1.54E+08	6.29E+07	2.75E+06
PU-237	3.95E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PU-238	1.28E+18	1.01E+18	8.65E+17	5.84E+17	1.22E+17	5.83E+14	6.16E+09	6.92E-06	0.	0.	0.	0.
PU-239	1.17E+17	1.17E+17	1.17E+17	1.17E+17	1.16E+17	1.14E+17	1.09E+17	9.07E+16	5.22E+16	7.01E+15	2.21E+13	1.39E+08
PU-240	1.49E+17	1.50E+17	1.50E+17	1.49E+17	1.46E+17	1.36E+17	1.10E+17	5.23E+16	6.28E+15	3.76E+12	3.34E+08	3.33E+08
PU-241	1.87E+19	4.41E+18	1.68E+18	1.52E+17	1.89E+14	1.69E+14	1.44E+14	8.13E+13	1.59E+13	5.28E+10	4.35E+03	0.
PU-242	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.11E+15	1.10E+15	1.06E+15	9.31E+14	6.44E+14	1.77E+14
PU-243	1.45E+08	1.44E+08	1.43E+08	1.39E+08								
PU-244	3.35E+08	3.33E+08										
PU-246	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.47E-03	0.	0.
AM-241	1.91E+18	2.29E+18	2.30E+18	2.17E+18	1.58E+18	5.15E+17	2.10E+16	8.59E+13	1.68E+13	5.56E+10	4.58E+03	0.
AM-242	7.00E+15	6.04E+15	5.48E+15	4.28E+15	1.60E+15	5.13E+13	2.76E+09	5.48E-07	0.	0.	0.	0.
AM-242M	7.04E+15	6.08E+15	5.51E+15	4.31E+15	1.61E+15	5.16E+13	2.77E+09	3.15E-06	0.	0.	0.	0.
AM-243	1.75E+16	1.74E+16	1.74E+16	1.73E+16	1.70E+16	1.59E+16	1.32E+16	6.84E+15	1.05E+15	1.46E+12	1.43E+08	1.39E+08
AM-244	3.12E+11	3.12E+11	3.12E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-245	2.68E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	7.66E+00	7.65E+00	7.64E+00	7.61E+00	7.49E+00	7.10E+00	6.08E+00	3.55E+00	7.60E-01	3.43E-03	0.	0.
CM-242	5.84E+15	5.02E+15	4.55E+15	3.56E+15	1.33E+15	4.26E+13	2.29E+09	2.60E-06	0.	0.	0.	0.
CM-243	9.48E+15	4.57E+15	2.81E+15	8.33E+14	6.43E+12	2.60E+05	0.	0.	0.	0.	0.	0.
CM-244	8.53E+17	2.71E+17	1.26E+17	1.86E+16	8.80E+12	2.04E+01	0.	0.	0.	0.	0.	0.
CM-245	1.83E+14	1.83E+14	1.83E+14	1.82E+14	1.79E+14	1.69E+14	1.44E+14	8.12E+13	1.59E+13	5.27E+10	4.34E+03	0.
CM-246	4.42E+13	4.40E+13	4.39E+13	4.36E+13	4.23E+13	3.82E+13	2.85E+13	1.02E+13	5.46E+11	1.92E+07	3.62E-06	0.
CM-247	1.45E+08	1.44E+08	1.43E+08	1.39E+08								
CM-248	4.07E+08	4.07E+08	4.07E+08	4.07E+08	4.07E+08	4.07E+08	4.05E+08	3.99E+08	3.83E+08	3.32E+08	2.21E+08	5.28E+07
CM-250	9.58E+01	9.56E+01	9.54E+01	9.51E+01	9.36E+01	8.87E+01	7.60E+01	4.44E+01	9.50E+00	4.33E-02	8.85E-09	0.
BK-249	1.85E+08	9.12E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	2.07E+03	2.11E+02	2.11E+02	2.95E+01	2.90E+01	2.75E+01	2.36E+01	1.37E+01	2.95E+00	1.34E-02	0.	0.
CF-249	4.43E+09	4.18E+09	4.01E+09	3.64E+09	2.45E+09	6.13E+08	1.17E+07	1.14E+01	0.	0.	0.	0.
CF-250	6.72E+09	1.37E+09	4.75E+08	3.36E+07	8.68E+02	2.75E+01	2.36E+01	1.38E+01	2.95E+00	1.34E-02	2.65E-09	0.
CF-251	1.43E+08	1.40E+08	1.38E+08	1.32E+08	1.13E+08	6.61E+07	1.41E+07	6.36E+04	1.26E-02	0.	0.	0.
CF-252	4.41E+08	1.04E+06	8.57E+05	1.79E+00	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CF-254 ES-254		0. 1.82E+02			0.			0.		0.	0.	0.
Summe	2.31E+19	8.30E+18	5.30E+18	3.25E+18	2.01E+18	8.02E+17				1.86E+16	1.39E+16	9.35E+15

W S 1004

Aktivität [Bq] versus Zeit [Jahre] des Gesamtinventars Aktivität der Aktivierungs- und Spaltprodukte in [Bq]

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	1.23E+17	2.29E+16	7.44E+15	4.50E+14	5.99E+09	5.12E-08	0.	0.	0.	0.	0.	0.
BE-10	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.88E+09	6.87E+09	6.85E+09	6.79E+09	6.59E+09	6.04E+09	4.46E+09
C-14	2.31E+15	2.30E+15	2.30E+15	2.29E+15	2.23E+15	2.05E+15	1.61E+15	6.90E+14	6.14E+13	1.29E+10	4.01E-01	0.
NA-22	5.04E+10	4.96E+10	4.96E+10	8.14E+04	0.	0.	0.	0.	0.	0.	0.	0.
AL-26	1.49E+03	1.97E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.11E+03	2.07E+03	1.94E+03	1.60E+03	8.11E+02
SI-32	6.97E+07	6.66E+07	6.46E+07	5.98E+07	4.39E+07	1.49E+07	6.86E+05	1.43E+01	0.	0.	0.	0.
P-32	8.94E+08	2.73E+08	2.71E+08	5.98E+07	4.39E+07	1.49E+07	6.86E+05	1.43E+01	0.	0.	0.	0.
P-33	1.51E+06	3.77E+05	3.77E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.46E+09	1.40E+09	1.40E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	8.12E+12	8.12E+12	8.13E+12	8.12E+12	8.12E+12	8.11E+12	8.07E+12	7.94E+12	7.58E+12	6.45E+12	4.07E+12	8.13E+11
AR-37	6.79E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AR-39	3.54E+11	3.28E+11	3.11E+11	2.74E+11	1.64E+11	2.69E+10	1.56E+08	2.28E+00	0.	0.	0.	0.
AR-42	1.24E+02	6.58E+01	4.32E+01	1.51E+01	2.27E-01	9.33E-08	0.	0.	0.	0.	0.	0.
K-40	8.22E+08	1.05E+09	1.12E+09									
K-42	1.24E+02	6.58E+01	4.32E+01	1.51E+01	2.27E-01	0.	0.	0.	0.	0.	0.	0.
CA-41	2.94E+11	2.97E+11	2.98E+11	2.98E+11	2.98E+11	2.96E+11	2.92E+11	2.79E+11	2.43E+11	1.51E+11	3.89E+10	3.34E+08
CA-45	5.61E+08	1.78E+08	1.78E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	1.34E+08	9.98E+07	9.98E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48	6.42E+06	1.60E+06	1.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	1.97E+01											
CR-51	1.22E+10	3.17E+09	3.17E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.85E+14	5.37E+10	5.37E+10	1.12E-07	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.65E+17	7.68E+13	2.81E+12	7.48E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	1.37E+08	1.37E+08	1.37E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-56	1.02E+05	2.54E+04	2.54E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.92E+12	1.92E+12	1.92E+12	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	2.40E+08	1.14E+08	1.14E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	3.85E+17	7.46E+15	5.46E+14	7.60E+11	2.86E+00	0.	0.	0.	0.	0.	0.	0.
NI-59	7.50E+15	7.50E+15	7.50E+15	7.49E+15	7.48E+15	7.43E+15	7.29E+15	6.84E+15	5.68E+15	2.98E+15	4.69E+14	7.27E+11
NI-63	8.98E+17	7.23E+17	6.26E+17	4.36E+17	1.03E+17	6.57E+14	3.52E+08	0.	0.	0.	0.	0.
ZN-65	1.86E+12	6.56E+08	6.56E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a	
GA-67	5.17E+02	1.29E+02	1.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	
SE-75	8.31E+07	2.08E+07	2.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	
SE-79	6.74E+13	6.74E+13	6.74E+13	6.74E+13	6.73E+13	6.72E+13	6.69E+13	6.58E+13	6.28E+13	5.33E+13	3.33E+13	6.43E+12	
BR-82	3.60E+07	8.99E+06	8.99E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	
KR-81	2.44E+08	2.44E+08	2.44E+08	2.44E+08	2.43E+08	2.43E+08	2.41E+08	2.36E+08	2.21E+08	1.75E+08	9.05E+07	8.96E+06	
KR-85	8.38E+17	1.20E+17	3.30E+16	1.30E+15	3.15E+09	0.	0.	0.	0.	0.	0.	0.	
RB-83	3.12E+03	7.80E+02	7.80E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RB-84	2.92E+03	7.29E+02	7.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RB-86	8.94E+07	2.24E+07	2.24E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RB-87	1.61E+10												
SR-85	4.59E+08	1.15E+08	1.15E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	
SR-89	8.85E+07	7.54E+07	7.54E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	
SR-90	2.67E+19	1.31E+19	8.11E+18	2.47E+18	2.11E+16	1.23E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01	
Y-88	7.26E+06	1.82E+06	1.82E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Y-90	2.67E+19	1.31E+19	8.11E+18	2.47E+18	2.11E+16	1.23E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01	
Y-91	1.30E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
ZR-93	1.48E+15	1.47E+15	1.46E+15	1.42E+15	1.29E+15	9.41E+14							
ZR-95	4.49E+11	4.48E+11	4.48E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NB-91	8.26E+03	8.01E+03	7.85E+03	7.46E+03	6.08E+03	2.98E+03	3.88E+02	3.09E-01	4.30E-10	0.	0.	0.	
NB-93M	1.04E+15	1.31E+15	1.36E+15	1.40E+15	1.41E+15	1.41E+15	1.40E+15	1.40E+15	1.39E+15	1.34E+15	1.23E+15	8.94E+14	
NB-94	9.57E+14	9.56E+14	9.56E+14	9.54E+14	9.47E+14	9.25E+14	8.64E+14	6.80E+14	3.44E+14	3.15E+13	3.41E+10	1.42E+00	
NB-95	5.22E+11	5.19E+11	5.19E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NB-95M	1.12E+08	1.03E+08	1.03E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	
MO-93	1.85E+13	1.84E+13	1.83E+13	1.82E+13	1.74E+13	1.52E+13	1.02E+13	2.55E+12	4.86E+10	4.60E+04	0.	0.	
MO-99	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	
TC-95	1.92E+04	4.79E+03	4.79E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	
TC-95M	8.59E+05	2.15E+05	2.15E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	
TC-98	4.26E+09	4.24E+09	4.19E+09	4.06E+09	3.61E+09								
TC-99	1.01E+16	1.01E+16	1.01E+16	1.01E+16	1.01E+16	1.00E+16	9.97E+15	9.74E+15	9.13E+15	7.27E+15	3.79E+15	3.89E+14	
TC-99M	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RU-103	8.91E+06	3.68E+06	3.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RU-106	7.23E+16	2.33E+13	2.33E+13	2.73E-02	0.	0.	0.	0.	0.	0.	0.	0.	
RH-101	9.78E+04	2.54E+04	2.44E+04	4.83E-01	0.	0.	0.	0.	0.	0.	0.	0.	
RH-102	8.24E+12	6.34E+09	5.32E+07	3.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	
RH-103M	5.78E+06	1.07E+06	1.07E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RH-106	7.23E+16	2.33E+13	2.33E+13	2.73E-02	0.	0.	0.	0.	0.	0.	0.	0.	
PD-107	8.63E+13	8.62E+13	8.61E+13	8.54E+13	8.36E+13	7.76E+13							

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AG-108	1.07E+12	9.09E+11	8.15E+11	6.21E+11	2.08E+11	4.57E+09	8.30E+04	0.	0.	0.	0.	0.
AG-108M	1.21E+13	1.03E+13	9.24E+12	7.03E+12	2.36E+12	5.17E+10	9.40E+05	0.	0.	0.	0.	0.
AG-109M	4.82E+11	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	7.69E+11	4.58E+07	4.58E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	5.79E+13	9.26E+09	9.26E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	4.82E+11	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	4.03E+01											
CD-113M	1.21E+16	2.62E+15	9.44E+14	7.38E+13	2.76E+09	8.85E-07	0.	0.	0.	0.	0.	0.
CD-115M	6.62E+05	1.65E+05	1.65E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-111	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.42E+10	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114	3.67E+05	9.17E+04	9.17E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	3.84E+05	9.59E+04	9.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	1.02E+04											
IN-115M	4.54E+01	1.13E+01	1.13E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-113	1.42E+10	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-117M	6.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.88E+14	2.04E+03	4.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121	1.13E+05	1.16E+05	1.04E+05	5.58E+04	4.49E+03	6.62E-01	0.	0.	0.	0.	0.	0.
SN-121M	3.87E+14	2.65E+14	2.06E+14	1.10E+14	8.82E+12	1.30E+09	1.47E-02	0.	0.	0.	0.	0.
SN-123	2.15E+11	2.86E+02	2.86E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-125	1.27E-05	0.	0 .	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	5.64E+14	5.64E+14	5.64E+14	5.64E+14	5.63E+14	5.60E+14	5.52E+14	5.26E+14	4.58E+14	2.82E+14	7.05E+13	5.51E+11
SB-124	1.39E+06	3.03E+05	3.03E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	8.40E+16	5.60E+13	1.01E+13	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	7.89E+13	7.89E+13	7.89E+13	7.89E+13	7.88E+13	7.84E+13	7.73E+13	7.37E+13	6.41E+13	3.95E+13	9.87E+12	7.71E+10
SB-126M	5.64E+14	5.64E+14	5.64E+14	5.64E+14	5.63E+14	5.60E+14	5.52E+14	5.26E+14	4.58E+14	2.82E+14	7.05E+13	5.51E+11
TE-123	2.20E+03											
TE-123M	2.62E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.05E+16	1.36E+13	2.46E+12	9.10E+06	0.	0.	0.	0.	0.	0.	0.	0.
TE-127	9.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-127M	9.70E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	1.69E+04	1.80E+01	1.80E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129M	2.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	6.28E+08	1.57E+08	1.57E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.51E+13	1.50E+13	1.50E+13	1.49E+13	1.44E+13							
J-131	1.62E+07	4.08E+06	4.08E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
XE-127	1.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	1.06E+04	2.64E+03	2.64E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	3.60E+17	3.07E+13	1.57E+13	7.87E+05	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	3.12E+14	3.11E+14	3.09E+14	3.03E+14	2.85E+14	2.31E+14						
CS-136	7.73E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	3.88E+19	1.94E+19	1.22E+19	3.85E+18	3.79E+16	3.58E+09	2.91E+03	1.11E+03	1.46E+02	8.07E+01	6.10E+01	3.13E+01
BA-133	1.06E+09	4.32E+08	2.82E+08	1.12E+07	2.77E+01	0.	0.	0.	0.	0.	0.	0.
BA-137M	3.67E+19	1.83E+19	1.16E+19	3.64E+18	3.58E+16	3.39E+09	2.75E+03	1.05E+03	1.38E+02	7.62E+01	5.76E+01	2.95E+01
BA-140	5.15E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LA-138	7.96E+04											
LA-140	5.93E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-139	1.32E+07	3.30E+06	3.30E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	6.85E+07	1.69E+07	1.69E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-142	4.27E+04											
CE-144	3.81E+16	2.97E+12	2.97E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-143	1.81E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.81E+16	2.97E+12	2.97E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.57E+14	3.52E+10	3.52E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	1.20E+06											
ND-147	7.61E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-145	3.78E+08	1.17E+08	5.34E+07	7.54E+06	2.99E+03	3.50E-09	0.	0.	0.	0.	0.	0.
PM-146	9.72E+13	2.22E+12	1.78E+11	3.27E+08	3.70E-03	0.	0.	0.	0.	0.	0.	0.
PM-147	6.00E+17	2.21E+14	5.10E+12	9.34E+06	0.	0.	0.	0.	0.	0.	0.	0.
PM-148	6.17E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-148M	1.10E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-146	1.57E+08	1.59E+08	1.58E+08									
SM-147	3.48E+09	3.50E+09										
SM-148	3.98E+04											
SM-149	5.97E+02											
SM-151	2.03E+17	1.61E+17	1.38E+17	9.40E+16	2.01E+16	9.18E+13	1.87E+07	0.	0.	0.	0.	0.
EU-149	1.08E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EU-150	7.27E+09	3.96E+09	2.64E+09	9.57E+08	1.66E+07	1.15E+01	0.	0.	0.	0.	0.	0.
EU-152	1.28E+15	2.69E+14	9.49E+13	7.06E+12	2.16E+08	3.24E-08	0.	0.	0.	0.	0.	0.
EU-154	9.73E+17	9.16E+16	1.90E+16	3.69E+14	5.32E+07	0.	0.	0.	0.	0.	0.	0.
EU-155	1.86E+17	2.81E+15	1.71E+14	1.58E+11	1.15E-01	0.	0.	0.	0.	0.	0.	0.
EU-156	2.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
GD-152	1.25E+03	1.28E+03	1.29E+03									
GD-153	1.42E+12	5.37E+06	5.37E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-157	5.03E+08	4.38E+08	3.99E+08	3.17E+08	1.26E+08	4.95E+06	4.81E+02	0.	0.	0.	0.	0.
TB-160	1.33E+08	3.11E+07	3.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	3.48E+12	3.42E+12	3.38E+12	3.28E+12	2.93E+12	1.95E+12	6.15E+11	1.08E+10	1.04E+05	0.	0.	0.
TM-170	7.03E+06	1.33E+06	1.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-171	2.02E+09	4.30E+04	2.99E+03	4.32E-05	0.	0.	0.	0.	0.	0.	0.	0.
YB-169	1.17E+03	2.91E+02	2.91E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	2.07E+04											
LU-177	8.67E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	3.78E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-175	1.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.20E+08	3.00E+07	3.00E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	4.08E+08	4.07E+08	4.05E+08	3.99E+08	3.78E+08							
TA-179	6.76E+09	1.69E+09	1.69E+09	7.34E+00	0.	0.	0.	0.	0.	0.	0.	0.
TA-180	1.39E+02											
TA-182	2.11E+10	4.09E+08	4.09E+08	4.08E+08	4.08E+08	4.08E+08	4.08E+08	4.08E+08	4.07E+08	4.05E+08	3.99E+08	3.78E+08
W-181	2.95E+08	3.73E+07	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-185	2.90E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-188	4.16E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-186	1.84E+03	4.61E+02	4.61E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	5.34E+07											
RE-188	4.21E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-186	4.74E-13	6.38E-13	6.91E-13	6.93E-13								
OS-191	1.16E+08	2.91E+07	2.91E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-194	4.68E+04	1.46E+03	1.45E+02	4.50E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	6.18E+07	3.42E+07	3.28E+07	2.11E+07	1.19E+07	1.59E+06	5.03E+03	9.08E-06	0.	0.	0.	0.
IR-192M	2.81E+07	2.58E+07	2.43E+07	2.11E+07	1.19E+07	1.58E+06	5.03E+03	9.08E-06	0.	0.	0.	0.
IR-194	4.68E+04	1.46E+03	1.45E+02	4.50E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.87E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	2.72E+08	2.61E+08	2.53E+08	2.36E+08	1.79E+08	6.79E+07	4.24E+06	2.59E+02	2.30E-10	0.	0.	0.
PT-197	5.27E+07	1.32E+07	1.32E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-197	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	6.98E+07	5.60E+07	5.60E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-201	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-204	1.20E+12	5.57E+09	6.26E+08	6.58E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	1.21E+07	1.20E+07	1.19E+07	1.13E+07	9.63E+06							

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PB-204	2.78E-01	2 700-01	2 705-01	2 705-01	2.79E-01	2 708-01	2.79E-01	2 705-01	2.79E-01	2 705 01	2.79E-01	2 705-01
PB-205	21702 01				7.31E+06						7.21E+06	
BI-208	1.75E+07	1.75E+07	1.75E+07		1.75E+07						9.93E+06	
BI-210M	1.22E+07	1.21E+07	1.19E+07	1.14E+07	9.67E+06							
PO-208	4.25E+04	1.09E+04	1.06E+04	6.81E-02	0.	0.	0.	0.	0.	0.	0.	0.
PO-210	5.12E+06	4.87E+04	4.87E+04	4.87E+04	4.87E+04	4.87E+04	4.87E+04	4.86E+04	4.84E+04	4.76E+04	4.55E+04	3.87E+04
Summe	1.34E+20	6.50E+19	4.08E+19	1.30E+19	2.64E+17	2.58E+16	2.43E+16	2.24E+16	1.95E+16	1.41E+16	7.35E+15	2.56E+15

C.3

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie Brennelemente (BE)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	8.71E+16	1.62E+16	5.26E+15	3.18E+14	4.24E+09	3.64E-08	0.	0.	0.	0.	0.	0.
BE-10	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.57E+09	5.55E+09	5.51E+09	5.34E+09	4.90E+09	3.62E+09
C-14	8.44E+14	8.41E+14	8.39E+14	8.34E+14	8.14E+14	7.48E+14	5.87E+14	2.52E+14	2.24E+13	4.71E+09	1.46E-01	0.
NA-22	1.82E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SI-32	5.25E+07	5.01E+07	4.86E+07	4.50E+07	3.31E+07	1.12E+07	5.17E+05	1.07E+01	0.	0.	0.	0.
P-32	5.25E+07	5.01E+07	4.86E+07	4.50E+07	3.31E+07	1.13E+07	5.17E+05	1.07E+01	0.	0.	0.	0.
S-35	1.12E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	6.84E+12	6.84E+12	6.84E+12	6.84E+12	6.84E+12	6.83E+12	6.79E+12	6.69E+12	6.38E+12	5.43E+12	3.43E+12	6.84E+11
AR-37	6.79E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AR-39	3.44E+10	3.19E+10	3.03E+10	2.66E+10	1.59E+10	2.62E+09	1.51E+07	2.22E-01	0.	0.	0.	0.
AR-42	1.22E+02	6.50E+01	4.27E+01	1.49E+01	2.24E-01	9.22E-08	0.	0.	0.	0.	0.	0.
K-40	2.12E+06											
K-42	1.22E+02	6.50E+01	4.27E+01	1.49E+01	2.24E-01	0.	0.	0.	0.	0.	0.	0.
CA-41	1.25E+11	1.25E+11	1.25E+11	1.25E+11	1.25E+11	1.24E+11	1.23E+11	1.17E+11	1.02E+11	6.35E+10	1.63E+10	1.40E+08
CA-45	3.66E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	2.05E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	1.49E+01											
CR-51	2.26E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.85E+14	5.15E+03	4.73E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.63E+17	7.37E+13	4.34E+11	1.16E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	6.18E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	6.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	3.46E+17	6.70E+15	4.82E+14	6.72E+11	2.53E+00	0.	0.	0.	0.	0.	0.	0.
NI-59	4.97E+15	4.97E+15	4.97E+15	4.96E+15	4.95E+15	4.92E+15	4.83E+15	4.53E+15	3.77E+15	1.97E+15	3.10E+14	4.81E+11
NI-63	5.32E+17	4.28E+17	3.71E+17	2.58E+17	6.10E+16	3.89E+14	2.08E+08	0.	0.	0.	0.	0.
ZN-65	1.86E+12	5.54E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	4.28E+13	4.28E+13	4.28E+13	4.28E+13	4.27E+13	4.27E+13	4.25E+13	4.18E+13	3.99E+13	3.38E+13	2.11E+13	4.08E+12
KR-81	2.43E+08	2.43E+08	2.43E+08	2.43E+08	2.43E+08	2.42E+08	2.41E+08	2.35E+08	2.20E+08	1.75E+08	9.03E+07	8.95E+06
KR-85	8.37E+17	1.20E+17	3.30E+16	1.30E+15	3.15E+09	0.	0.	0.	0.	0.	0.	0.
RB-86	3.57E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-87	1.02E+10											

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
SR-89	1.31E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	1.77E+19	8.67E+18	5.39E+18	1.64E+18	1.40E+16	8.14E+08	0.	0.	0.	0.	0.	0.
Y-90	1.77E+19	8.67E+18	5.39E+18	1.64E+18	1.40E+16	8.14E+08	0.	0.	0.	0.	0.	0.
Y-91	1.30E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ZR-93	9.18E+14	9.18E+14	9.18E+14	9.18E+14	9.18E+14	9.17E+14	9.16E+14	9.14E+14	9.05E+14	8.77E+14	8.01E+14	5.83E+14
ZR-95	1.20E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-91	8.18E+03	7.94E+03	7.78E+03	7.39E+03	6.03E+03	2.95E+03	3.85E+02	3.06E-01	4.26E-10	0.	0.	0.
NB-93M	6.17E+14	8.02E+14	8.42E+14	8.68E+14	8.72E+14	8.72E+14	8.71E+14	8.68E+14	8.60E+14	8.33E+14	7.61E+14	5.54E+14
NB-94	5.98E+14	5.97E+14	5.97E+14	5.96E+14	5.92E+14	5.78E+14	5.39E+14	4.25E+14	2.15E+14	1.97E+13	2.13E+10	8.86E-01
NB-95	2.66E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	8.89E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MO-93	1.13E+13	1.12E+13	1.12E+13	1.11E+13	1.07E+13	9.28E+12	6.24E+12	1.56E+12	2.97E+10	2.81E+04	0.	0.
TC-98	2.92E+09	2.91E+09	2.88E+09	2.78E+09	2.48E+09							
TC-99	6.19E+15	6.19E+15	6.19E+15	6.19E+15	6.18E+15	6.17E+15	6.13E+15	5.99E+15	5.61E+15	4.47E+15	2.33E+15	2.39E+14
RU-103	1.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	7.22E+16	7.94E+07	8.46E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-102	8.04E+12	6.18E+09	5.19E+07	3.35E+02	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	1.51E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	7.22E+16	7.94E+07	8.46E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	5.63E+13	5.61E+13	5.57E+13	5.45E+13	5.06E+13							
AG-108	4.57E+11	3.88E+11	3.48E+11	2.65E+11	8.88E+10	1.95E+09	3.54E+04	0.	0.	0.	0.	0.
AG-108M	5.13E+12	4.36E+12	3.91E+12	2.97E+12	9.98E+11	2.19E+10	3.98E+05	0.	0.	0.	0.	0.
AG-109M	4.79E+11	3.73E+04	6.79E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	7.69E+11	4.80E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	5.78E+13	3.65E+00	4.82E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	4.79E+11	3.73E+04	6.80E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	2.18E+01											
CD-113M	9.04E+15	1.96E+15	7.07E+14	5.53E+13	2.07E+09	6.63E-07	0.	0.	0.	0.	0.	0.
CD-115M	6.48E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.42E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114	1.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	1.49E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	5.90E+03											
IN-115M	4.54E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-113	1.41E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-117M	6.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.88E+14	1.59E+03	4.98E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
SN-121M	2.06E+14	1.41E+14	1.10E+14	5.85E+13	4.70E+12	6.93E+08	7.84E-03	0.	0.	0.	0.	0.
SN-123	2.15E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-125	1.27E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	3.63E+14	3.63E+14	3.63E+14	3.62E+14	3.62E+14	3.60E+14	3.55E+14	3.38E+14	2.95E+14	1.81E+14	4.53E+13	3.54E+11
SB-124	1.79E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	8.23E+16	4.52E+13	3.03E+11	1.12E+06	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	5.08E+13	5.08E+13	5.07E+13	5.07E+13	5.07E+13	5.04E+13	4.97E+13	4.74E+13	4.12E+13	2.54E+13	6.35E+12	4.96E+10
SB-126M	3.63E+14	3.63E+14	3.63E+14	3.62E+14	3.62E+14	3.60E+14	3.55E+14	3.38E+14	2.95E+14	1.81E+14	4.53E+13	3.54E+11
TE-123	1.47E+03											
TE-123M	2.62E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.01E+16	1.10E+13	7.39E+10	2.72E+05	0.	0.	0.	0.	0.	0.	0.	0.
TE-127	9.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-127M	9.70E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	1.68E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129M	2.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.49E+13	1.48E+13	1.47E+13	1.42E+13								
J-131	2.19E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-127	1.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	2.00E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	3.59E+17	1.50E+13	1.80E+10	9.04E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.97E+14	1.96E+14	1.91E+14	1.80E+14	1.46E+14							
CS-136	7.73E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	2.61E+19	1.30E+19	8.21E+18	2.59E+18	2.55E+16	2.41E+09	0.	0.	0.	0.	0.	0.
BA-133	1.03E+06	1.49E+05	4.08E+04	1.62E+03	4.01E-03	0.	0.	0.	0.	0.	0.	0.
BA-137M	2.47E+19	1.23E+19	7.77E+18	2.45E+18	2.41E+16	2.28E+09	0.	0.	0.	0.	0.	0.
BA-140	5.15E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LA-138	4.83E+04											
LA-140	5.93E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-139	1.27E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	8.42E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-142	2.73E+04											
CE-144	3.81E+16	9.48E+04	1.74E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-143	1.81E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.81E+16	9.48E+04	1.74E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.57E+14	1.14E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	7.79E+05											
ND-147	7.61E-02	0.	0.	0.	0 -	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PM-145	3.74E+08	1.16E+08	5.28E+07	7.46E+06	2.96E+03	3.50E-09	0.	0.	0.	0.	0.	0.
PM-146	8.57E+13	1.95E+12	1.57E+11	2.88E+08	3.26E-03	0.	0.	0.	0.	0.	0.	0.
PM-147	5.90E+17	2.13E+14	1.08E+12	1.98E+06	0.	0.	0.	0.	0.	0.	0.	0.
PM-148	6.17E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-148M	1.10E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-146	1.12E+08	1.13E+08	1.12E+08									
SM-147	2.07E+09	2.09E+09										
SM-148	2.67E+04											
SM-149	3.36E+02											
SM-151	1.28E+17	1.01E+17	8.69E+16	5.91E+16	1.27E+16	5.77E+13	1.18E+07	0.	0.	0.	0.	0.
EU-149	1.08E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EU-150	5.21E+09	2.84E+09	1.89E+09	6.87E+08	1.19E+07	8.22E+00	0.	0.	0.	0.	0.	0.
EU-152	8.95E+14	1.88E+14	6.65E+13	4.94E+12	1.50E+08	2.33E-08	0.	0.	0.	0.	0.	0.
EU-154	7.92E+17	7.45E+16	1.54E+16	3.00E+14	4.33E+07	0.	0.	0.	0.	0.	0.	0.
EU-155	1.69E+17	2.55E+15	1.56E+14	1.44E+11	1.04E-01	0.	0.	0.	0.	0.	0.	0.
EU-156	2.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	4.96E+02	5.20E+02	5.24E+02	5.26B+02	5.27E+02							
GD-153	1.42E+12	3.33E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-157	5.03E+08	4.38E+08	3.99E+08	3.17E+08	1.26E+08	4.95E+06	4.81E+02	0.	0.	0.	0.	0.
TB-160	8.73E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	2.53E+12	2.49E+12	2.46E+12	2.39E+12	2.13E+12	1.42E+12	4.47E+11	7.84E+09	7.54E+04	0.	0.	0.
TM-170	1.70E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-171	2.02E+09	4.00E+04	2.93E+01	4.23E-07	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	1.14E+04											
LU-177	8.67E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	3.78E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-175	1.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	8.62E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	2.19E+08	2.18E+08	2.14E+08	2.03E+08								
TA-180	1.03E+02											
TA-182	2.09E+10	2.19E+08	2.18E+08	2.14E+08	2.03E+08							
W-181	1.46E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-185	2.90E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-188	4.16E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	2.95E+07											
RE-188	4.21E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
OS-194	3.70E+04	1.16E+03	1.15E+02	3.56E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	1.46E+07	1.34E+07	1.27E+07	1.10E+07	6.17E+06	8.25E+05	2.62E+03	4.72E-06	0.	0.	0.	0.
IR-192M	1.46E+07	1.34E+07	1.27E+07	1.10E+07	6.17E+06	8.24E+05	2.62E+03	4.72E-06	0.	0.	0.	0.
IR-194	3.71E+04	1.16E+03	1.15E+02	3.56E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.87E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	1.41E+08	1.35E+08	1.32E+08	1.23E+08	9.30E+07	3.53E+07	2.20E+06	1.34E+02	1.18E-10	0.	0.	0.
TL-206	8.04E+06	8.05E+06	8.05E+06	8.06E+06	8.21E+06	1.00E+07	2.33E+07	9.66E+07	2.94E+08	6.97E+08	7.86E+08	2.74E+08
TL-207	3.80E+10	4.94E+10	5.43E+10	6.30E+10	9.07E+10	1.86E+11	4.57E+11	1.38E+12	3.77E+12	8.60E+12	1.06E+13	1.06E+13
TL-208	7.70E+12	5.89E+12	4.86E+12	3.01E+12	4.48E+11	1.15E+10	1.10E+10	1.10E+10	1.10E+10	1.12E+10	1.18E+10	1.37E+10
TL-209	4.26E+09	7.12E+09	9.02E+09	1.38E+10	3.26E+10	9.65E+10	2.69E+11	7.95E+11	1.96E+12	4.94E+12	9.40E+12	1.04E+13
PB-204	1.42E-01											
PB-205	3.78E+06	3.77E+06	3.76E+06	3.72E+06	3.60E+06							
PB-209	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
PB-210	3.52E+08	1.80E+09	3.71E+09	1.27E+10	1.25E+11	1.54E+12	1.17E+13	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PB-211	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PB-212	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
PB-214	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
BI-208	1.14E+07	1.14E+07	1.14E+07	1.14E+07	1.14E+07	1.13E+07	1.13E+07	1.12E+07	1.07E+07	9.41E+06	6.46E+06	1.73E+06
BI-210	3.51E+08	1.80E+09	3.71E+09	1.27E+10	1.25E+11	1.54E+12	1.17E+13	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
BI-210M	8.08E+06	8.08E+06	8.08E+06	8.08E+06	8.08E+06	8.08E+06	8.07E+06	8.06E+06	8.02E+06	7.89E+06	7.54E+06	6.41E+06
BI-211	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
BI-212	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
BI-213	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
BI-214	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-210	3.43E+08	1.76E+09	3.65E+09	1.26E+10	1.24E+11	1.54E+12	1.17E+13	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-211	1.07E+08	1.39E+08	1.52E+08	1.77E+08	2.55E+08	5.22E+08	1.28E+09	3.88E+09	1.06E+10	2.41E+10	2.97E+10	2.98E+10
PO-212	1.37E+13	1.05E+13	8.67E+12	5.37E+12	7.99E+11	2.05E+10	1.96E+10	1.96E+10	1.97E+10	2.00E+10	2.10E+10	2.44E+10
PO-213	1.93E+11	3.23E+11	4.09E+11	6.23E+11	1.47E+12	4.37E+12	1.22E+13	3.60E+13	8.89E+13	2.24E+14	4.26E+14	4.69E+14
PO-214	1.17E+09	4.21E+09	7.49E+09	2.06E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-215	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PO-216	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
PO-218	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
AT-217	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
RN-218	0.	1.62E-07	7.51E-07	5.99E-06	1.59E-04	5.46E-03	1.21E-01	2.62E+00	2.91E+01	2.76E+02	1.31E+03	2.95E+03
RN-219	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
RN-220	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
RN-222	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
FR-221	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
FR-223	5.26E+08	6.84E+08	7.51E+08	8.72E+08	1.26E+09	2.57E+09	6.32E+09	1.91E+10	5.21E+10	1.19E+11	1.46E+11	1.47E+11
RA-223	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
RA-224	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
RA-225	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
RA-226	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
RA-228	3.02E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
AC-225	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
AC-227	3.82E+10	4.96E+10	5.44E+10	6.32E+10	9.10E+10	1.87E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
AC-228	3.02E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
TH-227	3.76E+10	4.88E+10	5.37E+10	6.23E+10	8.97E+10	1.84E+11	4.52E+11	1.37E+12	3.72E+12	8.50E+12	1.05E+13	1.05E+13
TH-228	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
TH-229	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
TH-230	1.54E+11	3.23E+11	4.49E+11	8.00E+11	2.47E+12	8.92E+12	2.72E+13	8.79E+13	2.36E+14	5.36E+14	5.97E+14	2.05E+14
TH-231	6.51E+12	6.52E+12	6.52E+12	6.53E+12	6.55E+12	6.63E+12	6.85E+12	7.53E+12	8.88E+12	1.04E+13	1.06E+13	1.06E+13
TH-232	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10						
TH-234	1.27E+14	1.27B+14	1.27E+14	1.27E+14								
PA-231	5.43E+10	5.84E+10	6.11E+10	6.80E+10	9.53E+10	1.91E+11	4.62E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PA-232	3.28E+06	3.28E+06	3.28E+06	3.28E+06	3.28E+06	3.27E+06	3.24E+06	3.14E+06	2.87E+06	2.10E+06	8.57E+05	3.75E+04
PA-233	1.74E+14	1.92E+14	2.05E+14	2.37E+14	3.43E+14	5.31E+14	6.18E+14	6.20E+14	6.17E+14	6.03E+14	5.65E+14	4.50E+14
PA-234	1.66E+11											
PA-234M	1.27E+14											
U-232	2.11E+13	1.59E+13	1.31E+13	8.12E+12	1.18E+12	1.59E+09	1.82E+08	1.77E+08	1.61E+08	1.18E+08	4.83E+07	2.11E+06
U-233	4.70E+13	4.70E+13	4.70E+13	4.70E+13	4.72E+13	4.85E+13	5.32E+13	7.03E+13	1.16E+14	2.46E+14	4.41E+14	4.79E+14
U-234	5.77E+14	6.73E+14	7.26E+14	8.27E+14	9.93E+14	1.04E+15	1.03E+15	1.01E+15	9.64E+14	8.13E+14	5.16E+14	1.81E+14
U-235	6.52E+12	6.52E+12	6.52E+12	6.53E+12	6.55E+12	6.63E+12	6.85E+12	7.53E+12	8.88E+12	1.04E+13	1.06E+13	1.06E+13
U-236	1.19E+14	1.19E+14	1.19E+14	1.20E+14	1.21E+14	1.23E+14	1.31E+14	1.46E+14	1.59E+14	1.60E+14	1.59E+14	1.56E+14
U-237	4.58E+14	1.08E+14	4.12E+13	3.72E+12	3.73E+09	3.30E+09	2.80E+09	1.58E+09	3.10E+08	1.03E+06	8.46E-02	0.
U-238	1.27E+14	1.27B+14	1.27E+14	1.27E+14								
U-240	3.34E+08	3.32E+08										
NP-235	1.18E+09	5.54E+00	1.56E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	2.05E+09	2.05E+09	2.05E+09	2.05E+09	2.05E+09	2.04E+09	2.02E+09	1.96E+09	1.79E+09	1.31E+09	5.36E+08	2.34E+07
NP-237	1.74E+14	1.92E+14	2.05E+14	2.37E+14	3.43E+14	5.31E+14	6.18E+14	6.20E+14	6.17E+14	6.03E+14	5.65E+14	4.50E+14
NP-238	2.24E+13	1.93E+13	1.75E+13	1.37E+13	5.13E+12	1.64E+11	8.82E+06	0.	0.	0.	0.	0.
NP-239	1.29E+16	1.28E+16	1.28E+16	1.28E+16	1.25E+16	1.17E+16	9.72E+15	5.04E+15	7.70E+14	1.07E+12	1.31E+08	1.27E+08
NP-240M	3.34E+08	3.32E+08										
PU-236	4.28E+12	3.09E+09	2.04E+08	1.81E+08	1.81E+08	1.80E+08	1.79E+08	1.73E+08	1.58E+08	1.16E+08	4.74E+07	2.07E+06

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-237	3.95E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PU-238	1.28E+18	1.01E+18	8.62E+17	5.82E+17	1.21E+17	5.49E+14	4.29E+09	4.80E-06	0.	0.	0.	0.
PU-239	1.17E+17	1.17E+17	1.17E+17	1.17E+17	1.16E+17	1.14E+17	1.08E+17	8.96E+16	5.13E+16	6.87E+15	2.16E+13	1.27E+08
PU-240	1.47E+17	1.48E+17	1.48E+17	1.47E+17	1.44E+17	1.34E+17	1.08E+17	5.15E+16	6.18E+15	3.70E+12	3.34E+08	3.32E+08
PU-241	1.87E+19	4.40E+18	1.68E+18	1.52E+17	1.52E+14	1.35E+14	1.14E+14	6.46E+13	1.26E+13	4.19E+10	3.45E+03	0.
PU-242	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.11E+15	1.11E+15	1.10E+15	1.06E+15	9.28E+14	6.42E+14	1.77E+14
PU-243	1.33E+08	1.32E+08	1.31E+08	1.27E+08								
PU-244	3.34E+08	3.33E+08										
PU-246	7.33E+00	7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00	7.27E-01	3.31E-03	0.	0.
AM-241	1.59E+18	1.98E+18	2.01E+18	1.90E+18	1.38E+18	4.50E+17	1.83E+16	6.83E+13	1.33E+13	4.42E+10	3.64E+03	0.
AM-242	4.86E+15	4.19E+15	3.80E+15	2.97E+15	1.11E+15	3.56E+13	1.91E+09	5.48E-07	0.	0.	0.	0.
AM-242M	4.88E+15	4.21E+15	3.82E+15	2.98E+15	1.12E+15	3.58E+13	1.92E+09	2.18E-06	0.	0.	0.	0.
AM-243	1.29E+16	1.28E+16	1.28E+16	1.28E+16	1.25E+16	1.17E+16	9.72E+15	5.04E+15	7.70E+14	1.07E+12	1.31E+08	1.27E+08
AM-245	2.68E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	7.33E+00	7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00	7.27E-01	3.29E-03	0.	0.
CM-242	4.05E+15	3.48E+15	3.15E+15	2.47E+15	9.22E+14	2.95E+13	1.59E+09	1.80E-06	0.	0.	0.	0.
CM-243	7.67E+15	3.70E+15	2.27E+15	6.74E+14	5.20E+12	2.10E+05	0.	0.	0.	0.	0.	0.
CM-244	6.41E+17	2.03E+17	9.46E+16	1.40E+16	6.61E+12	1.53E+01	0.	0.	0.	0.	0.	0.
CM-245	1.46B+14	1.45E+14	1.45E+14	1.45E+14	1.42E+14	1.34E+14	1.14E+14	6.45E+13	1.26E+13	4.18E+10	3.45E+03	0.
CM-246	3.94E+13	3.92E+13	3.91E+13	3.88E+13	3.77E+13	3.40E+13	2.54E+13	9.10E+12	4.86E+11	1.71E+07	3.22E-06	0.
CM-247	1.33E+08	1.32E+08	1.31E+08	1.27E+08								
CM-248	3.82E+08	3.82E+08	3.82E+08	3.82E+08	3.82E+08	3.81E+08	3.80E+08	3.74E+08	3.59E+08	3.11E+08	2.07E+08	4.95E+07
CM-250	9.16E+01	9.14E+01	9.13E+01	9.09E+01	8.95E+01	8.48E+01	7.27E+01	4.24E+01	9.09E+00	4.14E-02	8.46E-09	0.
BK-249	1.85E+08	9.12E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	1.35E+03	2.83E+01	2.83E+01	2.82E+01	2.77E+01	2.63E+01	2.25E+01	1.31E+01	2.82E+00	1.28E-02	0.	0.
CF-249	4.20E+09	3.96E+09	3.81E+09	3.45E+09	2.32E+09	5.82E+08	1.11E+07	1.08E+01	0.	0.	0.	0.
CF-250	6.52E+09	1.33E+09	4.61E+08	3.26E+07	8.42E+02	2.63E+01	2.26E+01	1.32E+01	2.82E+00	1.29E-02	2.54E-09	0.
CF-251	1.37E+08	1.34E+08	1.32E+08	1.27E+08	1.09E+08	6.32E+07	1.35E+07	6.08E+04	1.20E-02	0.	0.	0.
CF-252	4.37E+08	1.65E+05	8.61E+02	1.70E-03	0.	0.	0.	0.	0.	0.	0.	0.
CF-254	6.87E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	1.32E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	1.13E+20	5.14E+19	3.22E+19	1.16E+19	1.96E+18	7.42E+17	2.73E+17	1.70E+17	7.83E+16	2.67E+16	1.75E+16	9.88E+15

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie Brennelemente (BE)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-142	2.73E+04											
ND-144	7.79E+05											
SM-146	1.12E+08	1.13E+08	1.12E+08									
SM-147	2.07E+09	2.09E+09										
SM-148	2.67E+04											
SM-149	3.36E+02											
GD-152	4.96E+02	5.20E+02	5.24E+02	5.26E+02	5.27E+02							
PB-204	1.42E-01											
BI-210	4.56E+02	2.34E+03	4.82E+03	1.65E+04	1.62E+05	2.01E+06	1.52E+07	8.86E+07	2.86E+08	6.89E+08	7.78E+08	2.67E+08
BI-210M	8.04E+06	8.03E+06	7.99E+06	7.86E+06	7.51E+06	6.38E+06						
BI-211	3.80E+10	4.94E+10	5.43E+10	6.30E+10	9.07E+10	1.86E+11	4.57E+11	1.38E+12	3.77E+12	8.60E+12	1.06E+13	1.06E+13
BI-212	7.70E+12	5.89E+12	4.86E+12	3.01E+12	4.48E+11	1.15E+10	1.10E+10	1.10E+10	1.10E+10	1.12E+10	1.18E+10	1.37E+10
BI-213	4.26E+09	7.12E+09	9.02E+09	1.38E+10	3.26E+10	9.66E+10	2.69E+11	7.95E+11	1.96E+12	4.94E+12	9.40E+12	1.04E+13
BI-214	2.45E+05	8.84E+05	1.57E+06	4.34E+06	3.23E+07	3.45E+08	2.50E+09	1.44E+10	4.63E+10	1.11E+11	1.26E+11	4.32E+10
PO-210	3.43E+08	1.76E+09	3.65E+09	1.26E+10	1.24E+11	1.54E+12	1.17E+13	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-211	1.07E+08	1.39E+08	1.52E+08	1.77E+08	2.55E+08	5.22E+08	1.28E+09	3.88E+09	1.06E+10	2.41E+10	2.97E+10	2.98E+10
PO-212	1.37E+13	1.05E+13	8.67E+12	5.37E+12	7.99E+11	2.05E+10	1.96E+10	1.96E+10	1.97E+10	2.00E+10	2.10E+10	2.44E+10
PO-213	1.93E+11	3.23E+11	4.09E+11	6.23E+11	1.47E+12	4.37E+12	1.22E+13	3.60E+13	8.89E+13	2.24E+14	4.26E+14	4.69E+14
PO-214	1.17E+09	4.21E+09	7.49E+09	2.06E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-215	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PO-216	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
PO-218	1.17E+09	4.21E+09	7.50E+09	2.06E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
AT-217	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
RN-218	0.	1.62E-07	7.51E-07	5.99E-06	1.59E-04	5.46E-03	1.21E-01	2.62E+00	2.91E+01	2.76E+02	1.31E+03	2.95E+03
RN-219	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
RN-220	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19B+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
RN-222	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
FR-221	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
FR-223	3.16E+04	4.10E+04	4.51E+04	5.23E+04	7.54E+04	1.54E+05	3.79E+05	1.15E+06	3.13E+06	7.14E+06	8.78E+06	8.81E+06
RA-223	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
RA-224	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3′000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RA-226	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
AC-225	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
AC-227	5.27E+08	6.84E+08	7.51E+08	8.72E+08	1.26E+09	2.57E+09	6.32E+09	1.91E+10	5.21E+10	1.19E+11	1.46E+11	1.47E+11
TH-227	3.76E+10	4.88E+10	5.37E+10	6.23E+10	8.97E+10	1.84E+11	4.52E+11	1.37E+12	3.72E+12	8.50E+12	1.05E+13	1.05E+13
TH-228	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
TH-229	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
TH-230	1.54E+11	3.23E+11	4.49E+11	8.00E+11	2.47E+12	8.92E+12	2.72E+13	8.79E+13	2.36E+14	5.36E+14	5.97E+14	2.05E+14
TH-232	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10						
PA-231	5.43E+10	5.84E+10	6.11E+10	6.80E+10	9.53E+10	1.91E+11	4.62E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
U-232	2.11E+13	1.59E+13	1.31E+13	8.12E+12	1.18E+12	1.59E+09	1.82E+08	1.77E+08	1.61E+08	1.18E+08	4.83E+07	2.11E+06
U-233	4.70E+13	4.70E+13	4.70E+13	4.70E+13	4.72E+13	4.85E+13	5.32E+13	7.03E+13	1.16E+14	2.46E+14	4.41E+14	4.79E+14
U-234	5.77E+14	6.73E+14	7.26E+14	8.27E+14	9.93E+14	1.04E+15	1.03E+15	1.01E+15	9.64E+14	8.13E+14	5.16E+14	1.81E+14
U-235	6.52E+12	6.52E+12	6.52E+12	6.53E+12	6.55E+12	6.63E+12	6.85E+12	7.53E+12	8.88E+12	1.04E+13	1.06E+13	1.06E+13
U-236	1.19E+14	1.19E+14	1.19E+14	1.20E+14	1.21E+14	1.23E+14	1.31E+14	1.46E+14	1.59E+14	1.60E+14	1.59E+14	1.56E+14
U-238	1.27E+14											
NP-235	1.65E+04	7.76E-05	2.18E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	3.28E+06	3.28E+06	3.28E+06	3.28E+06	3.28E+06	3.27E+06	3.24E+06	3.14E+06	2.87E+06	2.10E+06	8.58E+05	3.75E+04
NP-237	1.74E+14	1.92E+14	2.05E+14	2.37E+14	3.43E+14	5.31E+14	6.18E+14	6.20E+14	6.17E+14	6.03E+14	5.65E+14	4.50E+14
PU-236	4.28E+12	3.09E+09	2.04E+08	1.81E+08	1.81E+08	1.80E+08	1.79E+08	1.73E+08	1.58E+08	1.16E+08	4.74E+07	2.07E+06
PU-237	1.30E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PU-238	1.28E+18	1.01E+18	8.62E+17	5.82E+17	1.21E+17	5.49E+14	4.29E+09	4.80E-06	0.	0.	0.	0.
PU-239	1.17E+17	1.17E+17	1.17E+17	1.17E+17	1.16E+17	1.14E+17	1.08E+17	8.96E+16	5.13E+16	6.87E+15	2.16E+13	1.27E+08
PU-240	1.47E+17	1.48E+17	1.48E+17	1.47E+17	1.44E+17	1.34E+17	1.08E+17	5.15E+16	6.18E+15	3.70E+12	3.34E+08	3.32E+08
PU-241	4.57E+14	1.08E+14	4.12E+13	3.71E+12	3.73E+09	3.30E+09	2.80E+09	1.58E+09	3.10E+08	1.03E+06	8.46E-02	0.
PU-242	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.12E+15	1.11E+15	1.11E+15	1.10E+15	1.06E+15	9.28E+14	6.42E+14	1.77E+14
PU-244	3.34E+08	3.32E+08										
AM-241	1.59E+18	1.98E+18	2.01E+18	1.90E+18	1.38E+18	4.50E+17	1.83E+16	6.83E+13	1.33E+13	4.42E+10	3.64E+03	0.
AM-242M	2.24E+13	1.93E+13	1.75E+13	1.37E+13	5.13E+12	1.64E+11	8.82E+06	1.00E-08	0.	0.	0.	0.
AM-243	1.29E+16	1.28E+16	1.28E+16	1.28E+16	1.25E+16	1.17E+16	9.72E+15	5.04E+15	7.70E+14	1.07E+12	1.31E+08	1.27E+08
CM-242	4.05E+15	3.48E+15	3.15E+15	2.47E+15	9.22E+14	2.95E+13	1.59E+09	1.80E-06	0.	0.	0.	0.
CM-243	7.65E+15	3.69E+15	2.27E+15	6.72E+14	5.19E+12	2.10E+05	0.	0.	0.	0.	0.	0.
CM-244	6.41E+17	2.03E+17	9.46E+16	1.40E+16	6.61E+12	1.53E+01	0.	0.	0.	0.	0.	0.
CM-245	1.46E+14	1.45E+14	1.45E+14	1.45E+14	1.42E+14	1.34E+14	1.14E+14	6.45E+13	1.26E+13	4.18E+10	3.45E+03	0.
CM-246	3.94E+13	3.92E+13	3.91E+13	3.88E+13	3.77E+13	3.40E+13	2.54E+13	9.10E+12	4.86E+11	1.71E+07	3.22E-06	0.
CM-247	1.33E+08	1.32E+08	1.31E+08	1.27E+08								
CM-248	3.50E+08	3.50E+08	3.50E+08	3.50E+08	3.50E+08	3.50E+08	3.48E+08	3.43E+08	3.29E+08	2.86E+08	1.90E+08	4.54E+07
CM-250	7.33E+00	7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00	7.27E-01	3.31E-03	6.77E-10	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BK-249	2.68E+03	1.32E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CF-249	4.20E+09	3.96E+09	3.81E+09	3.45E+09	2.32E+09	5.82E+08	1.11E+07	1.08E+01	0.	0.	0.	0.
CF-250	6.52E+09	1.33E+09	4.61E+08	3.26E+07	8.41E+02	2.63E+01	2.26E+01	1.32E+01	2.82E+00	1.28E-02	2.54E-09	0.
CF-251	1.37E+08	1.34E+08	1.32E+08	1.27E+08	1.09E+08	6.32E+07	1.35E+07	6.08E+04	1.20E-02	0.	0.	0.
CF-252	4.24E+08	1.60E+05	8.35E+02	1.64E-03	0.	0.	0.	0.	0.	0.	0.	0.
CF-254	2.13E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	1.32E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
												·
Summe	3.80E+18	3.48E+18	3.25E+18	2.78E+18	1.78E+18	7.13E+17	2.48E+17	1.50E+17	6.31E+16	1.42E+16	8.32E+15	5.28E+15

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie Brennelemente (BE)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	8.71E+16	1.62E+16	5.26E+15	3.18E+14	4.24E+09	3.64E-08	0.					
BE-10	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.57E+09	0.	0.	0.	0.	0.
C-14	8.44E+14	8.41E+14	8.39E+14	8.34E+14	8.14E+14	7.48E+14		5.55E+09	5.51E+09	5.34E+09	4.90E+09	3.62E+09
NA-22	1.82E-07	0.	0.	0.	0.	0.	5.87E+14 0.	2.52E+14	2.24E+13	4.71E+09	1.46E-01	0.
SI-32	5.25E+07	5.01E+07	4.86E+07	4.50E+07	3.31E+07	1.12E+07		0.	0.	0.	0.	0.
P-32	5.25E+07	5.01E+07	4.86E+07	4.50E+07	3.31E+07	1.13E+07	5.17E+05	1.07E+01	0.	0.	0.	0.
S-35	1.12E+07	0.	0.	0.	0.	0.	5.17E+05 0.	1.07E+01	0.	0.	0.	0.
CL-36	6.84E+12	6.84E+12	6.84E+12	6.84E+12	6.84E+12	6.83E+12		0.	0.	0.	0.	0.
AR-37	6.79E-06	0.	0.	0.	0.046412	0.03E+12	6.79E+12	6.69E+12	6.38E+12	5.43E+12	3.43E+12	6.84E+11
AR-39	3.44E+10	3.19E+10	3.03E+10	2.66E+10	1.59E+10	0. 2.62E+09	0.	0.	0.	0.	0.	0.
AR-42	1.22E+02	6.50E+01	4.27E+01	1.49E+01	2.24E-01		1.51E+07	2.22E-01	0.	0.	0.	0.
K-40	2.12E+06	2.12E+06	2.12E+06	2.12E+06	2.12E+06	9.22E-08 2.12E+06	0.	0.	0.	0.	0.	0.
K-42	1.22E+02	6.50E+01	4.27E+01	1.49E+01	2.24E-01	0.	2.12E+06	2.12E+06	2.12E+06	2.12E+06	2.12E+06	2.12E+06
CA-41	1.25E+11	1.25E+11	1.25E+11	1.25E+11	1.25E+11	1.24E+11	0.	0.	0.	0.	0.	0.
CA-45	3.66E+08	0.	0.	0.	0.	0.	1.23E+11	1.17E+11	1.02E+11	6.35E+10	1.63E+10	1.40E+08
SC-46	2.05E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	0.	0.	0.	0.	0.	0.
CR-51	2.26E-05	0.	0.	0.	0.	0.	1.49E+01 0.	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01
MN-54	1.85E+14	5.15E+03	4.73E-04	0.	0.	0.		0.	0.	0.	0.	0.
FE-55	1.63E+17	7.37E+13	4.34E+11	1.16E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	6.18E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	6.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	3.46E+17	6.70E+15	4.82E+14	6.72E+11	2.53E+00	0.	0.	0.	0.	0.	0.	0.
NI-59	4.97E+15	4.97E+15	4.97E+15	4.96E+15	4.95E+15	-	0.	0.	0.	0.	0.	0.
NI-63	5.32E+17	4.28E+17	3.71E+17	2.58E+17	6.10E+16	4.92E+15	4.83E+15	4.53E+15	3.77E+15	1.97E+15	3.10E+14	4.81E+11
ZN-65	1.86E+12	5.54E-02	0.	0.	0.105+16	3.89E+14 0.	2.08E+08	0.	0.	0.	0.	0.
SE-79	4.28E+13	4.28E+13	4.28E+13	4.28E+13	4.27E+13		0.	0.	0.	0.	0.	0.
KR-81	2.43E+08	2.43E+08	2.43E+08	2.43E+08	2.43E+08	4.27E+13	4.25E+13	4.18E+13	3.99E+13	3.38E+13	2.11E+13	4.08E+12
KR-85	8.37E+17	1.20E+17	3.30E+16	1.30E+15	3.15E+09	2.42E+08 0.	2.41E+08	2.35E+08	2.20E+08	1.75E+08	9.03E+07	8.95E+06
RB-86	3.57E-03	0.	0.	0.	0.		0.	0.	0.	0.	0.	0.
RB-87	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	0.	0.	0.	0.	0.	0.	0.
				1.025710	T.05E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a	
SR-89	1.31E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
SR-90	1.77E+19	8.67E+18	5.39E+18	1.64E+18	1.40E+16	8.14E+08	0.	0.	0.	0.	0.	0.	
Y-90	1.77E+19	8.67E+18	5.39E+18	1.64E+18	1.40E+16	8.14E+08	0.	0.	0.	0.	0.	0.	
Y-91	1.30E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
ZR-93	9.18E+14	9.18E+14	9.18E+14	9.18E+14	9.18E+14	9.17E+14	9.16E+14	9.14E+14	9.05E+14	8.77E+14	8.01E+14	0.	
ZR-95	1.20E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.775+14	0.016+14	5.83E+14	
NB-91	8.18E+03	7.94E+03	7.78E+03	7.39E+03	6.03E+03	2.95E+03	3.85E+02	3.06E-01	4.26E-10	0.	0.	0.	
NB-93M	6.17E+14	8.02E+14	8.42E+14	8.68E+14	8.72E+14	8.72E+14	8.71E+14	8.68E+14	8.60E+14	8.33E+14		0.	
NB-94	5.98E+14	5.97E+14	5.97E+14	5.96E+14	5.92E+14	5.78E+14	5.39E+14	4.25E+14	2.15E+14	1.97E+13	7.61E+14	5.54E+14	
NB-95	2.66E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.13E+10	8.86E-01	
NB-95M	8.89E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
MO-93	1.13E+13	1.12E+13	1.12E+13	1.11E+13	1.07E+13	9.28E+12	6.24E+12	1.56E+12	2.97E+10		0.	0.	
TC-98	2.92E+09	2.91E+09	2.81E+04	0.	0.								
TC-99	6.19E+15	6.19E+15	6.19E+15	6.19E+15	6.18E+15	6.17E+15	6.13E+15	5.99E+15	5.61E+15	2.88E+09	2.78E+09	2.48E+09	
RU-103	1.68E+06	0.	0.	0.	0.	0.	0.135413	0.	0.	4.47E+15 0.	2.33E+15	2.39E+14	
RU-106	7.22E+16	7.94E+07	8.46E+01	0.	0.	0.	0.	0.	0.		0.	0.	
RH-102	8.04E+12	6.18E+09	5.19E+07	3.35E+02	0.	0.	0.	0.	0.	0.	0.	0.	
RH-103M	1.51E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
RH-106	7.22E+16	7.94E+07	8.46E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	
PD-107	5.63E+13	5.61E+13	0.	0.	0.								
AG-108	4.57E+11	3.88E+11	3.48E+11	2.65E+11	8.88E+10	1.95E+09	3.54E+04	0.	2.612+13	5.57E+13	5.45E+13	5.06E+13	
AG-108M	5.13E+12	4.36E+12	3.91E+12	2.97E+12	9.98E+11	2.19E+10	3.98E+05	0.	0.	0.	0.	0.	
AG-109M	4.79E+11	3.73E+04	6.79E-01	0.	0.	0.	0.	0.		0.	0.	0.	
AG-110	7.69E+11	4.80E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AG-110M	5.78E+13	3.65E+00	4.82E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CD-109	4.79E+11	3.73E+04	6.80E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CD-113	2.18E+01	0.	0.	0.	0.								
CD-113M	9.04E+15	1.96E+15	7.07E+14	5.53E+13	2.07E+09	6.63E-07	0.	0.	2.18E+01 0.	2.18E+01	2.18E+01	2.18E+01	
CD-115M	6.48E+02	0.	0.	0.	0.	0.032 07	0.	0.		0.	0.	0.	
IN-113M	1.42E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
IN-114	1.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
IN-114M	1.49E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
IN-115	5.90E+03		0.	0.	0.	0.							
IN-115M	4.54E-02	0.	0.	0.	0.	0.	0.	5.90E+03	5.90E+03	5.90E+03	5.90E+03	5.90E+03	
SN-113	1.41E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
SN-117M	6.01E-05	0.	0.	0.	0.	0.		0.	0.	0.	0.	0.	
SN-119M	2.88E+14	1.59E+03	4.98E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	
			1.505 05	٠.	٠.	٠.	0.	0.	0.	0.	0.	0.	

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
SN-121M	2.06E+14	1.41E+14	1.10E+14	5.85E+13	4.70E+12	6.93E+08	7 045 00					
SN-123	2.15E+11	0.	0.	0.	0.	0.935408	7.84E-03 0.	0.	0.	0.	0.	0.
SN-125	1.27E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	3.63E+14	3.63E+14	3.63E+14	3.62E+14	3.62E+14	3.60E+14		0.	0.	0.	0.	0.
SB-124	1.79E+05	0.	0.	0.	0.	0.	3.55E+14	3.38E+14	2.95E+14	1.81E+14	4.53E+13	3.54E+11
SB-125	8.23E+16	4.52E+13	3.03E+11	1.12E+06	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	5.08E+13	5.08E+13	5.07E+13	5.07E+13	5.07E+13	5.04E+13	0.	0.	0.	0.	0.	0.
SB-126M	3.63E+14	3.63E+14	3.63E+14	3.62E+14	3.62E+14	3.60E+14	4.97E+13	4.74E+13	4.12E+13	2.54E+13	6.35E+12	4.96E+10
TE-123	1.47E+03	1.47E+03	1.47E+03	1.47E+03	1.47E+03	1.47E+03	3.55E+14	3.38E+14	2.95E+14	1.81E+14	4.53E+13	3.54E+11
TE-123M	2.62E+08	0.	0.	0.	0.	0.	1.47E+03	1.47E+03	1.47E+03	1.47E+03	1.47E+03	1.47E+03
TE-125M	2.01E+16	1.10E+13	7.39E+10	2.72E+05	0.	0.	0.	0.	0.	0.	0.	0.
TE-127	9.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-127M	9.70E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	1.68E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129M	2.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.49E+13	1.49E+13	1.49E+13	1.49E+13	1.49E+13	0. 1.49E+13	0.	0.	0.	0.	0.	0.
J-131	2.19E-05	0.	0.	0.	0.	0.	1.49E+13	1.49E+13	1.49E+13	1.48E+13	1.47E+13	1.42E+13
XE-127	1.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	2.00E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	3.59E+17	1.50E+13	1.80E+10	9.04E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.97E+14	1.97E+14	1.97E+14	1.97E+14	1.97E+14	1.97E+14	0.	0.	0.	0.	0.	0.
CS-136	7.73E-03	0.	0.	0.	0.	0.	1.97E+14	1.97E+14	1.96E+14	1.91E+14	1.80E+14	1.46E+14
CS-137	2.61E+19	1.30E+19	8.21E+18	2.59E+18	2.55E+16	0. 2.41E+09	0.	0.	0.	0.	0.	0.
BA-133	1.03E+06	1.49E+05	4.08E+04	1.62E+03	4.01E-03	0.	* *	0.	0.	0.	0.	0.
BA-137M	2.47E+19	1.23E+19	7.77E+18	2.45E+18	2.41E+16	0. 2.28E+09	0.	0.	0.	0.	0.	0.
BA-140	5.15E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LA-138	4.83E+04	4.83E+04	4.83E+04	4.83E+04	4.83E+04	4.83E+04	0.	0.	0.	0.	0.	0.
LA-140	5.93E+00	0.	0.	0.	0.	4.83E+04 0.	4.83E+04	4.83E+04	4.83E+04	4.83E+04	4.83E+04	4.83E+04
CE-139	1.27E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	8.42E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-144	3.81E+16	9.48E+04	1.74E-03	0.	0.		0.	0.	0.	0.	0.	0.
PR-143	1.81E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.81E+16	9.48E+04	1.74E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.57E+14	1.14E+03	0.	0.		0.	0.	0.	0.	0.	0.	0.
ND-147	7.61E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-145	3.74E+08	1.16E+08	5.28E+07	7.46E+06		0.	0.	0.	0.	0.	0.	0.
PM-146	8.57E+13	1.95E+12	1.57E+11	2.88E+08	2.96E+03	3.50E-09	0.	0.	0.	0.	0.	0.
			T. 3/15TIL	2.005108	3.26E-03	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PM-147	5.90E+17	2.13E+14	1.08E+12	1.98E+06	0.	0.	0.					
PM-148	6.17E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-148M	1.10E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-151	1.28E+17	1.01E+17	8.69E+16		1.27E+16		1.18E+07	0.	0.	0.	0.	0.
EU-149	1.08E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EU-150	5.21E+09	2.84E+09	1.89E+09		1.19E+07		0.	0.	0.	0.	0.	0.
EU-152	8.95E+14	1.88E+14	6.65E+13	4.94E+12	1.50E+08	2.33E-08	0.	0.	0.	0.	0.	0.
EU-154	7.92E+17	7.45E+16	1.54E+16	3.00E+14	4.33E+07	0.	0.	0.	0.	0.	0.	0.
EU-155	1.69E+17	2.55E+15	1.56E+14	1.44E+11	1.04E-01	0.	0.	0.	0.	0.	0.	0.
EU-156	2.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GD-153	1.42E+12	3.33E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-157	5.03E+08	4.38E+08	3.99E+08	3.17E+08	1.26E+08	4.95E+06		0.	0.	0.	0.	0.
TB-160	8.73E+06	0.	0.	0.	0.	0.	4.81E+02 0.	0.	0.	0.	0.	0.
HO-166M	2.53E+12	2.49E+12	2.46E+12	2.39E+12	2.13E+12	1.42E+12		0.	0.	0.	0.	0.
TM-170	1.70E+06	0.	0.	0.	0.	0.	4.47E+11 0.	7.84E+09	7.54E+04	0.	0.	0.
TM-171	2.02E+09	4.00E+04	2.93E+01	4,23E-07	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04		0.	0.	0.	0.	0.
LU-177	8.67E+05	0.	0.	0.	0.	0.	1.14E+04 0.	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04
LU-177M	3.78E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-175	1.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	8.62E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08		0.	0.	0.	0.	0.
TA-180	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	2.19E+08	2.19E+08	2.19E+08	2.18E+08	2.14E+08	2.03E+08
TA-182	2.09E+10	2.19E+08	2.19E+08	2.19B+08	2.19E+08	2.19E+08	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02
W-181	1.46E+08	0.	0.	0.	0.	0.	2.19E+08 0.	2.19E+08	2.19E+08	2.18E+08	2.14E+08	2.03E+08
W-185	2.90E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-188	4.16E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	2.95E+07	0.	0.	0.	0.	0.						
RE-188	4.21E+04	0.	0.	0.	0.	0.	0.	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07
OS-194	3.70E+04	1.16E+03	1.15E+02	3.56E-01	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	1.46E+07	1.34E+07	1.27E+07	1.10E+07	6.17E+06	8,25E+05		0.	0.	0.	0.	0.
IR-192M	1.46E+07	1.34E+07	1.27E+07	1.10E+07	6.17E+06	8.24E+05	2.62E+03	4.72E-06	0.	0.	0.	0.
IR-194	3.71E+04	1.16E+03	1.15E+02	3.56E-01	0.	0.246+05	2.62E+03 0.	4.72E-06	0.	0.	0.	0.
IR-194M	1.87E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	1.41E+08	1.35E+08	1.32E+08	1.23E+08	9.30E+07	3.53E+07		0.	0.	0.	0.	0.
TL-206	8.04E+06	8.05E+06	8.05E+06	8.06E+06	8.21E+06	1.00E+07	2.20E+06	1.34E+02	1.18E-10	0.	0.	0.
					0.212700	1.002+0/	2.33E+07	9.66E+07	2.94E+08	6.97E+08	7.86E+08	2.74E+08

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-207	3.80E+10	4.94E+10	5.43E+10	6.30E+10	9.07E+10	1.86E+11	4.57E+11	1.38E+12	2 555.10	0 40		
TL-208	7.70E+12	5.89E+12	4.86E+12		4.48E+11	1.15E+10	1.10E+10	1.10E+10		8.60E+12		1.06E+13
TL-209	4.26E+09	7.12E+09	9.02E+09	1.38E+10	3.26E+10	9.65E+10	2.69E+11		1.10E+10	1.12E+10	1.18E+10	1.37E+10
PB-205	3.78E+06	7.95E+11	1.96E+12	4.94E+12	9.40E+12	1.04E+13						
PB-209	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.78E+06	3.77E+06	3.76E+06	3.72E+06	3.60E+06
PB-210	3.52E+08	1.80E+09	3.71E+09	1.27E+10	1.25E+11	1.54E+12	1.17E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
PB-211	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PB-212	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10		1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PB-214	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
BI-208	1.14E+07	1.14E+07	1.14E+07	1.14E+07	1.14E+07	1.13E+07	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
BI-210	3.51E+08	1.80E+09	3.71E+09	1.27E+10	1.25E+11	1.54E+12	1.13E+07	1.12E+07	1.07E+07	9.41E+06	6.46E+06	1.73E+06
BI-210M	3.23E+04	3.23E+04	3.23E+04	3.23E+04	3.23E+04		1.17E+13	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
BI-211	1.07E+08	1.39E+08	1.52E+08	1.77E+08	2.55E+04	3.23E+04	3.23E+04	3.22E+04	3.21E+04	3.16E+04	3.01E+04	2.56E+04
BI-212	1.37E+13	1.05E+13	8.67E+12	5.37E+12	7.99E+11	5.22E+08	1.28E+09	3.88E+09	1.06E+10	2.41E+10	2.97E+10	2.98E+10
BI-213	1.93E+11	3.23E+11	4.09E+11	6.23E+11	1.47E+12	2.05E+10	1.96E+10	1.96E+10	1.97E+10	2.00E+10	2.10E+10	2.44E+10
BI-214	1.17E+09	4.21E+09	7.50E+09	2.06E+10	1.54E+11	4.37E+12	1.22E+13	3.60E+13	8.89E+13	2.24E+14	4.26E+14	4.69E+14
PO-218	2.34E+05	8.42E+05	1.50E+06	4.13E+06		1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
FR-223	5.26E+08	6.84E+08	7.51E+08	8.72E+08	3.08E+07	3.29E+08	2.39E+09	1.37E+10	4.41E+10	1.06E+11	1.20E+11	4.12E+10
RA-225	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.26E+09	2.57E+09	6.32E+09	1.91E+10	5.21E+10	1.19E+11	1.46E+11	1.47E+11
RA-228	3.02E+10	3.03E+10	3.03E+10	3.03E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
AC-227	3.76E+10	4.89E+10	5.37E+10	6.23E+10	3.03E+10	3.03E+10	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
AC-228	3.02E+10	3.03E+10	3.03E+10	3.03E+10	8.98E+10	1.84E+11	4.52E+11	1.37E+12	3.72E+12	8.50E+12	1.05E+13	1.05E+13
TH-231	6.51E+12	6.52E+12	6.52E+12		3.03E+10	3.03E+10	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
TH-234	1.27E+14	1.27E+14	1.27E+14	6.53E+12	6.55E+12	6.63E+12	6.85E+12	7.53E+12	8.88E+12	1.04E+13	1.06E+13	1.06E+13
PA-232	3.28E+06	3.28E+06	3.28E+06	1.27E+14								
PA-233	1.74E+14	1.92E+14	2.05E+14	3.28E+06	3.28E+06	3.27E+06	3.24E+06	3.14E+06	2.87E+06	2.10E+06	8.57E+05	3.75E+04
PA-234	1.66E+11	1.66E+11	1.66E+11	2.37E+14	3.43E+14	5.31E+14	6.18E+14	6.20E+14	6.17E+14	6.03E+14	5.65E+14	4.50E+14
PA-234M	1.27E+14	1.27E+14	1.27E+14	1.66E+11								
U-237	4.58E+14	1.08E+14	4.12E+13	1.27E+14								
U-240	3.34E+08	3.34E+08		3.72E+12	3.73E+09	3.30E+09	2.80E+09	1.58E+09	3.10E+08	1.03E+06	8.46E-02	0.
NP-235	1.18E+09	5.54E+00	3.34E+08	3.32E+08								
NP-236	2.05E+09	2.05E+09	1.56E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-238	2.24E+13	1.93E+13	2.05E+09	2.05E+09	2.04E+09	2.04E+09	2.02E+09	1.96E+09	1.79E+09	1.31E+09	5.35E+08	2.34E+07
NP-239	1.29E+16		1.75E+13	1.37E+13	5.13E+12	1.64E+11	8.82E+06	0.	0.	0.	0.	0.
NP-240M	3.34E+08	1.28E+16	1.28E+16	1.28E+16	1.25E+16	1.17E+16	9.72E+15	5.04E+15	7.70E+14	1.07E+12	1.31E+08	1.27E+08
PU-237	3.95E-02	3.34E+08	3.32E+08									
PU-241	1.87E+19		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
- 0 111	2.07513	4.40E+18	1.68E+18	1.52E+17	1.52E+14	1.35E+14	1.14E+14	6.46E+13	1.26E+13	4.19E+10	3.45E+03	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-243	1.33E+08	1.32E+08	1.31E+08	1.27E+08								
PU-244	4.35E+05	4.34E+05										
PU-246	7.33E+00	7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00	7.27E-01	3.31E-03	0.	4.33E+05
AM-242	4.86E+15	4.19E+15	3.80E+15	2.97E+15	1.11E+15	3.56E+13	1.91E+09	5.48E-07	0.	0.	0.	0.
AM-242M	4.86E+15	4.19E+15	3.80E+15	2.97E+15	1.11E+15	3.56E+13	1.91E+09	2.17E-06	0.	0.		0.
AM-245	2.68E+03	0.	0.	0.	0.	0.	0.	0.	0.		0.	0.
AM-246	7.33E+00	7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00		0.	0.	0.
CM-243	1.84E+13	8.88E+12	5.46E+12	1.62E+12	1.25E+10	5.05E+02	0.	0.	7.27E-01	3.29E-03	0.	0.
CM-246	1.18E+10	1.18E+10	1.17E+10	1.16E+10	1.13E+10	1.02E+10	7.61E+09		0.	0.	0.	0.
CM-248	3.15E+07	3.15E+07	3.15E+07	3.15E+07	3.15E+07	3.15E+07		2.73E+09	1.46E+08	5.13E+03	9.67E-10	0.
CM-250	8.43E+01	8.41E+01	8.40E+01	8.36E+01	8.24E+01		3.14E+07	3.09E+07	2.97E+07	2.57E+07	1.71E+07	4.08E+06
BK-249	1.85E+08	9.12E-03	0.405+01	0.305+01		7.80E+01	6.69E+01	3.90E+01	8.36E+00	3.81E-02	7.79E-09	0.
BK-250	1.35E+03				0.	0.	0.	0.	0.	0.	0.	0.
		2.83E+01	2.83E+01	2.82E+01	2.77E+01	2.63E+01	2.25E+01	1.31E+01	2.82E+00	1.28E-02	0.	0.
CF-250	5.22E+06	1.06E+06	3.69E+05	2.61E+04	6.73E-01	2.11E-02	1.81E-02	1.05E-02	2.26E-03	1.03E-05	2.03E-12	0.
CF-252	1.35E+07	5.10E+03	2.66E+01	5.24E-05	0.	0.	0.	0.	0.	0.	0.	0.
CF-254	6.84E-06	0.	0.	0.	0.	0.	0.	0.	0.			
								· .	0.	0.	0.	0.
Summe	1.09E+20	4.79E+19	2.90E+19	8.82E+18	1.82E+17	2.85E+16	2.58E+16	2.04E+16	1.52E+16	1.26E+16	9.14E+15	4.60E+15

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie Brennelemente (BE)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	4.57E+02	2.34E+03	4.83E+03	1.65E+04	1.62E+05	2.01E+06	1.52E+07	8.86E+07	2.86E+08	6.89E+08	7 707.00	
TL-207	3.80E+10	4.94E+10	5.43E+10	6.30E+10	9.07E+10	1.86E+11	4.57E+11	1.38E+12	3.77E+12	8.60E+12	7.78E+08	2.67E+08
TL-208	7.70E+12	5.89E+12	4.86E+12	3.01E+12	4.48E+11	1.15E+10	1.10E+10	1.10E+10	1.10E+10	1.12E+10	1.06E+13	1.06E+13
TL-209	4.26E+09	7.12E+09	9.02E+09	1.38E+10	3.26E+10	9.65E+10	2.69E+11	7.95E+11	1.96E+12		1.18E+10	1.37E+10
PB-209	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	9.08E+13	4.94E+12	9.40E+12	1.04E+13
PB-210	3.52E+08	1.80E+09	3.71E+09	1.27E+10	1.25E+11	1.54E+12	1.17E+13	6.81E+13	2.20E+14	2.29E+14	4.35E+14	4.80E+14
PB-211	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12		5.30E+14	5.99E+14	2.06E+14
PB-212	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PB-214	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	3.07E+10	3.12E+10	3.27E+10	3.81E+10
BI-208	2.03E-01	2.03E-01	2.03E-01	2.03E-01	2.03E-01	2.03E-01	2.02E-01	1.99E-01	2.20E+14 1.92E-01	5.30E+14	5.99E+14	2.06E+14
BI-210	3.51E+08	1.80E+09	3.71E+09	1.27E+10	1.25E+11	1.54E+12	1.17E+13	6.81E+13		1.68E-01	1.15E-01	3.09E-02
BI-210M	7.46E-01	7.46E-01	7.46E-01	7.46E-01	7.46E-01	7.46E-01	7.45E-01	7.44E-01	2.20E+14	5.30E+14	5.99E+14	2.06E+14
BI-211	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	1.39E+12	7.41E-01	7.29E-01	6.96E-01	5.92E-01
BI-212	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+10	3.06E+10	3.78E+12	8.62E+12	1.06E+13	1.06E+13
BI-213	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.25E+13	3.68E+13	3.07E+10	3.12E+10	3.27E+10	3.81E+10
BI-214	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12	1.19E+13	6.84E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
PO-210	3.37E+08	1.76E+09	3.65E+09	1.26E+10	1.24E+11	1.54E+12	1.17E+13	6.81E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-211	1.07E+08	1.39E+08	1.52E+08	1.77E+08	2.55E+08	5.22E+08	1.28E+09	3.88E+09	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-212	1.37E+13	1.05E+13	8.67E+12	5.37E+12	7.99E+11	2.05E+10	1.96E+10	1.96E+10	1.06E+10	2.41E+10	2.97E+10	2.98E+10
PO-213	1.93E+11	3.23E+11	4.09E+11	6.23E+11	1.47E+12	4.37E+12	1.22E+13		1.97E+10	2.00E+10	2.10E+10	2.44E+10
PO-214	1.17E+09	4.21E+09	7.49E+09	2.06E+10	1.54E+11	1.64E+12	1.19E+13	3.60E+13	8.89E+13	2.24E+14	4.26E+14	4.69E+14
PO-215	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4.58E+11	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
PO-216	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	3.05E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PO-218	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	1.64E+12		3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
AT-217	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	4.47E+12	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
RN-218	0.	1.62E-07	7.51E-07	5.99E-06	1.59E-04	5.46E-03	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
RN-219	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	1.21E-01	2.62E+00	2.91E+01	2.76E+02	1.31E+03	2.95E+03
RN-220	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12		4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
RN-222	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	3.19E+10	3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
FR-221	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12	1.64E+12	1.19E+13	6.84E+13	2.20E+14	5.30B+14	5.99E+14	2.06E+14
FR-223	5.26E+08	6.84E+08	7.51E+08			4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
				0.725700	1.26E+09	2.57E+09	6.32E+09	1.91E+10	5.21E+10	1.19E+11	1.46E+11	1.47E+11

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RA-223	3.81E+10	4.95E+10	5.44E+10	6.32E+10	9.10E+10	1.86E+11	4 500.11					
RA-224	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	3.19E+10	4.58E+11	1.39E+12		8.62E+12	1.06E+13	1.06E+13
RA-225	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12		3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
RA-226	1.17E+09	4.21E+09	7.50E+09	2.07E+10	1.54E+11	4.47E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
RA-228	3.02E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	1.64E+12 3.03E+10	1.19E+13	6.84E+13	2.20E+14	5.30E+14	5.99E+14	2.06E+14
AC-225	1.97E+11	3.30E+11	4.18E+11	6.37E+11	1.51E+12		3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
AC-227	3.82E+10	4.96E+10	5.44E+10	6.32E+10	9.10E+10	4.47E+12 1.87E+11	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
AC-228	3.02E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	4.58E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
TH-227	3.76E+10	4.88E+10	5.37E+10	6.23E+10	8.97E+10		3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
TH-228	2.14E+13	1.64E+13	1.35E+13	8.37E+12	1.25E+12	1.84E+11 3.19E+10	4.52E+11	1.37E+12	3.72E+12	8.50E+12	1.05E+13	1.05E+13
TH-229	1.98E+11	3.30E+11	4.18E+11	6.38E+11	1.51E+12		3.05E+10	3.06E+10	3.07E+10	3.12E+10	3.27E+10	3.81E+10
TH-230	1.54E+11	3.23E+11	4.49E+11	8.00E+11	2.47E+12	4.47E+12 8.92E+12	1.25E+13	3.68E+13	9.08E+13	2.29E+14	4.35E+14	4.80E+14
TH-231	6.51E+12	6.52E+12	6.52E+12	6.53E+12	6.55E+12		2.72E+13	8.79E+13	2.36E+14	5.36E+14	5.97E+14	2.05E+14
TH-232	3.03E+10	3.03E+10	3.03E+10	3.03E+10	3.03E+10	6.63E+12	6.85E+12	7.53E+12	8.88E+12	1.04E+13	1.06E+13	1.06E+13
TH-234	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14	3.03E+10 1.27E+14	3.03E+10	3.04E+10	3.05E+10	3.11E+10	3.27E+10	3.81E+10
PA-231	5.43E+10	5.84E+10	6.11E+10	6.80E+10	9.53E+10		1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14
PA-232	3.28E+06	3.28E+06	3.28E+06	3.28E+06	3.28E+06	1.91E+11	4.62E+11	1.39E+12	3.78E+12	8.62E+12	1.06E+13	1.06E+13
PA-233	1.74E+14	1.92E+14	2.05E+14	2.37E+14	3.43E+14	3.27E+06	3.24E+06	3.14E+06	2.87E+06	2.10E+06	8.57E+05	3.75E+04
PA-234	1.66E+11	1.66E+11	1.66E+11	1.66E+11	1.66E+11	5.31E+14	6.18E+14	6.20E+14	6.17E+14	6.03E+14	5.65E+14	4.50E+14
PA-234M	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.66E+11	1.66E+11	1.66E+11	1.66E+11	1.66E+11	1.66E+11	1.66E+11
U-232	2.11E+13	1.59E+13	1.31E+13	8.12E+12	1.18E+12	1.27E+14 1.59E+09	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14
U-233	4.70E+13	4.70E+13	4.70E+13	4.70E+13	4.72E+13		1.82E+08	1.77E+08	1.61E+08	1.18E+08	4.83E+07	2.11E+06
U-234	5.77E+14	6.73E+14	7.26E+14	8.27E+14	9.93E+14	4.85E+13 1.04E+15	5.32E+13	7.03E+13	1.16E+14	2.46E+14	4.41E+14	4.79E+14
U-235	6.52E+12	6.52E+12	6.52E+12	6.53E+12	6.55E+12		1.03E+15	1.01E+15	9.64E+14	8.13E+14	5.16E+14	1.81E+14
U-236	1.19E+14	1.19E+14	1.19E+14	1.20E+14	1.21E+14	6.63E+12 1.23E+14	6.85E+12	7.53E+12	8.88E+12	1.04E+13	1.06E+13	1.06E+13
U-237	4.58E+14	1.08E+14	4.12E+13	3.72E+12	3.73E+09		1.31E+14	1.46E+14	1.59E+14	1.60E+14	1.59E+14	1.56E+14
U-238	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14	3.30E+09 1.27E+14	2.80E+09	1.58E+09	3.10E+08	1.03E+06	8.46E-02	0.
U-240	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14	1.27E+14
NP-235	1.18E+09	5.54E+00	1.56E-05	0.	0.	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.32E+08
NP-236	2.05E+09	2.05E+09	2.05E+09	2.05E+09	2.05E+09	-	0.	0.	0.	0.	0.	0.
NP-237	1.74E+14	1.92E+14	2.05E+14	2.37E+14	3.43E+14	2.04E+09	2.02E+09	1.96E+09	1.79E+09	1.31E+09	5.36E+08	2.34E+07
NP-238	2.24E+13	1.93E+13	1.75E+13	1.37E+13	5.13E+12	5.31E+14	6.18E+14	6.20E+14	6.17E+14	6.03E+14	5.65E+14	4.50E+14
NP-239	1.29E+16	1.28E+16	1.28E+16	1.28E+16	1.25E+16	1.64E+11	8.82E+06	0.	0.	0.	0.	0.
NP-240M	3.34E+08	3.34E+08	3.34E+08	3.34E+08		1.17E+16	9.72E+15	5.04E+15	7.70E+14	1.07E+12	1.31E+08	1.27E+08
PU-236	4.28E+12	3.09E+09	2.04E+08	1.81E+08	3.34E+08 1.81E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.34E+08	3.32E+08
PU-237	3.95E-02	0.	0.	0.	0.	1.80E+08	1.79E+08	1.73E+08	1.58E+08	1.16E+08	4.74E+07	2.07E+06
PU-238	1.28E+18	1.01E+18	8.62E+17	5.82E+17	1.21E+17		0.	0.	0.	0.	0.	0.
				J.OZETI/	T.21D+1/	5.49E+14	4.29E+09	4.80E-06	0.	0.	0.	0.

												0,0
Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-239	1.17E+17	1.17E+17	1.17E+17	1 170.17	1 160 40							
PU-240	1.47E+17		1.48E+17							6.87E+15	2.16E+13	1.27E+08
PU-241	1.87E+19		1.68E+18		1.44E+17		1.08E+17	5.15E+16	6.18E+15	3.70E+12	3.34E+08	3.32E+08
PU-242	1.12E+15				1.52E+14		1.14E+14	6.46E+13	1.26E+13	4.19E+10	3.45E+03	0.
PU-243	1.33E+08		1.12E+15		1.12E+15		1.11E+15	1.10E+15	1.06E+15	9.28E+14	6.42E+14	1.77E+14
PU-244	3.34E+08	3.34E+08	1.33E+08		1.33E+08	1.33E+08	1.33E+08	1.33E+08	1.33E+08	1.32E+08	1.31E+08	1.27E+08
PU-246	7.33E+00		3.34E+08	3.33E+08								
AM-241		7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00	7.27E-01	3.31E-03	0.	0.
AM-242	1.59E+18	1.98E+18	2.01E+18	1.90E+18	1.38E+18	4.50E+17	1.83E+16	6.83E+13	1.33E+13	4.42E+10	3.64E+03	0.
AM-242M	4.86E+15	4.19E+15	3.80E+15	2.97E+15	1.11E+15	3.56E+13	1.91E+09	5.48E-07	0.	0.	0.	0.
AM-243	4.88E+15	4.21E+15	3.82E+15	2.98E+15	1.12E+15	3.58E+13	1.92E+09	2.18E-06	0.	0.	0.	
	1.29E+16	1.28E+16	1.28E+16	1.28E+16	1.25E+16	1.17E+16	9.72E+15	5.04E+15	7.70E+14	1.07E+12		0.
AM-245	2.68E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.31E+08	1.27E+08
AM-246	7.33E+00	7.31E+00	7.30E+00	7.27E+00	7.16E+00	6.79E+00	5.82E+00	3.39E+00	7.27E-01			0.
CM-242	4.05E+15	3.48E+15	3.15E+15	2.47E+15	9.22E+14	2.95E+13	1.59E+09	1.80E-06	0.	3.29E-03	0.	0.
CM-243	7.67E+15	3.70E+15	2.27E+15	6.74E+14	5.20E+12	2.10E+05	0.	0.	0.	0.	0.	0.
CM-244	6.41E+17	2.03E+17	9.46E+16	1.40E+16	6.61E+12	1.53E+01	0.	0.		0.	0.	0.
CM-245	1.46E+14	1.45E+14	1.45E+14	1.45E+14	1.42E+14	1.34E+14	1.14E+14		0.	0.	0.	0.
CM-246	3.94E+13	3.92E+13	3.91E+13	3.88E+13	3.77E+13	3.40E+13	2.54E+13	6.45E+13	1.26E+13	4.18E+10	3.45E+03	0.
CM-247	1.33E+08	9.10E+12	4.86E+11	1.71E+07	3.22E-06	0.						
CM-248	3.82E+08	3.82E+08	3.82E+08	3.82E+08	3.82E+08	3.81E+08		1.33E+08	1.33E+08	1.32E+08	1.31E+08	1.27E+08
CM-250	9.16E+01	9.14E+01	9.13E+01	9.09E+01	8.95E+01	8.48E+01	3.80E+08	3.74E+08	3.59E+08	3.11E+08	2.07E+08	4.95E+07
BK-249	1.85E+08	9.12E-03	0.	0.	0.5555	0.406+01	7.27E+01	4.24E+01	9.09E+00	4.14E-02	8.46E-09	0.
BK-250	1.35E+03	2.83E+01	2.83E+01	2.82E+01	2.77E+01		0.	0.	0.	0.	0.	0.
CF-249	4.20E+09	3.96E+09	3.81E+09	3.45E+09	2.32E+09	2.63E+01	2.25E+01	1.31E+01	2.82E+00	1.28E-02	0.	0.
CF-250	6.52E+09	1.33E+09	4.61E+08	3.26E+07		5.82E+08	1.11E+07	1.08E+01	0.	0.	0.	0.
CF-251	1.37E+08	1.34E+08	1.32E+08	1.27E+08	8.42E+02	2.63E+01	2.26E+01	1.32E+01	2.82E+00	1.29E-02	2.54E-09	0.
CF-252	4.37E+08	1.65E+05	8.61E+02		1.09E+08	6.32E+07	1.35E+07	6.08E+04	1.20E-02	0.	0.	0.
CF-254	6.87E-06	0.	0.015+02	1.70E-03	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	1.32E+03	0.		0.	0.	0.	0.	0.	0.	0.	0.	0.
			0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	2.25E+19	7.90E+18	4.95E+18	2.95E+18	1.80E+18	7.26E+17	2.58E+17	1.56E+17	6.60E+16	1 705.16	1 000 45	
								2.50571/	0.00E+16	T./9E+16	1.29E+16	8.29E+15

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie Brennelemente (BE)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	8.71E+16	1.62E+16	5.26E+15	3.18E+14	4.24E+09	3.64E-08	0.	0.				
BE-10	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.58E+09	5.57E+09	5.55E+09	0.	0.	0.	0.
C-14	8.44E+14	8.41E+14	8.39E+14	8.34E+14	8.14E+14	7.48E+14	5.87E+14	2.52E+14	5.51E+09	5.34E+09	4.90E+09	3.62E+09
NA-22	1.82E-07	0.	0.	0.	0.	0.	0.	0.	2.24E+13	4.71E+09	1.46E-01	0.
SI-32	5.25E+07	5.01E+07	4.86E+07	4.50E+07	3.31E+07	1.12E+07	5.17E+05	1.07E+01	0.	0.	0.	0.
P-32	5.25E+07	5.01E+07	4.86E+07	4.50E+07	3.31E+07	1.13E+07	5.17E+05	1.07E+01	0.	0.	0.	0.
S-35	1.12E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	6.84E+12	6.84E+12	6.84E+12	6.84E+12	6.84E+12	6.83E+12	6.79E+12	0. 6.69E+12	0.	0.	0.	0.
AR-37	6.79E-06	0.	0.	0.	0.	0.	0.796+12	0.09E+12	6.38E+12	5.43E+12	3.43E+12	6.84E+11
AR-39	3.44E+10	3.19E+10	3.03E+10	2.66E+10	1.59E+10	2.62E+09	1.51E+07		0.	0.	0.	0.
AR-42	1.22E+02	6.50E+01	4.27E+01	1.49E+01	2.24E-01	9.22E-08	0.	2.22E-01 0.	0.	0.	0.	0.
K-40	2.12E+06	2.12E+06	2.12E+06	2.12E+06	2.12E+06	2.12E+06	2.12E+06	0. 2.12E+06	0.	0.	0.	0.
K-42	1.22E+02	6.50E+01	4.27E+01	1.49E+01	2.24E-01	0.	0.	0.	2.12E+06	2.12E+06	2.12E+06	2.12E+06
CA-41	1.25E+11	1.25E+11	1.25E+11	1.25E+11	1.25E+11	1.24E+11	1.23E+11	1.17E+11	0.	0.	0.	0.
CA-45	3.66E+08	0.	0.	0.	0.	0.	0.	0.	1.02E+11	6.35E+10	1.63E+10	1.40E+08
SC-46	2.05E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	0.	0.	0.	0.
CR-51	2.26E-05	0.	0.	0.	0.	0.	0.	0.	1.49E+01	1.49E+01	1.49E+01	1.49E+01
MN-54	1.85E+14	5.15E+03	4.73E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.63E+17	7.37E+13	4.34E+11	1.16E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	6.18E+01	0.	0.	0.	0.	0.	0.		0.	0.	0.	0.
CO-58	6.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	3.46E+17	6.70E+15	4.82E+14	6.72E+11	2.53E+00	0.	0.	0.	0.	0.	0.	0.
NI-59	4.97E+15	4.97E+15	4.97E+15	4.96E+15	4.95E+15	4.92E+15		0.	0.	0.	0.	0.
NI-63	5.32E+17	4.28E+17	3.71E+17	2.58E+17	6.10E+16	3.89E+14	4.83E+15 2.08E+08	4.53E+15	3.77E+15	1.97E+15	3.10E+14	4.81E+11
ZN-65	1.86E+12	5.54E-02	0.	0.	0.102710	0.	0.	0.	0.	0.	0.	0.
SE-79	4.28E+13	4.28E+13	4.28E+13	4.28E+13	4.27E+13	4.27E+13	4.25E+13	0.	0.	0.	0.	0.
KR-81	2.43E+08	2.43E+08	2.43E+08	2.43E+08	2.43E+08	2.42E+08	2.41E+08	4.18E+13	3.99E+13	3.38E+13	2.11E+13	4.08E+12
KR-85	8.37E+17	1.20E+17	3.30E+16	1.30E+15	3.15E+09	0.	0.	2.35E+08	2.20E+08	1.75E+08	9.03E+07	8.95E+06
RB-86	3.57E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-87	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10		0.	0.	0.	0.	0.
						± - 025+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10	1.02E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
SR-89	1.31E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.		
SR-90	1.77E+19	8.67E+18	5.39E+18	1.64E+18	1.40E+16	8,14E+08	0.	0.	0.	0.	0.	0.
Y-90	1.77E+19	8.67E+18	5.39E+18	1.64E+18	1.40E+16	8.14E+08	0.	0.	0.	0.	0.	0.
Y-91	1.30E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ZR-93	9.18E+14	9.18E+14	9.18E+14	9.18E+14	9.18E+14	9.17E+14	9.16E+14	9.14E+14	9.05E+14		0.	0.
ZR-95	1.20E+09	0.	0.	0.	0.	0.	0.	0.	0.	8.77E+14 0.	8.01E+14	5.83E+14
NB-91	8.18E+03	7.94E+03	7.78E+03	7.39E+03	6.03E+03	2.95E+03	3.85E+02	3.06E-01	4.26E-10	0.	0.	0.
NB-93M	6.17E+14	8.02E+14	8.42E+14	8.68E+14	8.72E+14	8.72E+14	8.71E+14	8.68E+14	8.60E+14		0.	0.
NB-94	5.98E+14	5.97E+14	5.97E+14	5.96E+14	5.92E+14	5.78E+14	5.39E+14	4.25E+14	2.15E+14	8.33E+14	7.61E+14	5.54E+14
NB-95	2.66E+09	0.	0.	0.	0.	0.	0.	0.	0.	1.97E+13 0.	2.13E+10	8.86E-01
NB-95M	8.89E+06	0.	0.	0.	0.	0.	0.	0.	0.		0.	0.
MO-93	1.13E+13	1.12E+13	1.12E+13	1.11E+13	1.07E+13	9.28E+12	6.24E+12	1.56E+12	2.97E+10	0.	0.	0.
TC-98	2.92E+09	2.97E+10 2.91E+09	2.81E+04	0.	0.							
TC-99	6.19E+15	6.19E+15	6.19E+15	6.19E+15	6.18E+15	6.17E+15	6.13E+15	5.99E+15	5.61E+15	2.88E+09	2.78E+09	2.48E+09
RU-103	1.68E+06	0.	0.	0.	0.	0.	0.135+13	0.	0.	4.47E+15	2.33E+15	2.39E+14
RU-106	7.22E+16	7.94E+07	8.46E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-102	8.04E+12	6.18E+09	5.19E+07	3.35E+02	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	1.51E+06	0.	0.	0.	0.	0.	0.	0.	0.		0.	0.
RH-106	7.22E+16	7.94E+07	8.46E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	5.63E+13	5.61E+13	0.	0.	0.							
AG-108	4.57E+11	3.88E+11	3.48E+11	2.65E+11	8.88E+10	1.95E+09	3.54E+04	0.	0.	5.57E+13 0.	5.45E+13	5.06E+13
AG-108M	5.13E+12	4.36E+12	3.91E+12	2.97E+12	9.98E+11	2.19E+10	3.98E+05	0.	0.	0.	0.	0.
AG-109M	4.79E+11	3.73E+04	6.79E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	7.69E+11	4.80E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	5.78E+13	3.65E+00	4.82E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	4.79E+11	3.73E+04	6.80E-01	0.	0.	0.	0.	0.	0.		0.	0.
CD-113	2.18E+01	0. 2.18E+01	0.	0.								
CD-113M	9.04E+15	1.96E+15	7.07E+14	5.53E+13	2.07E+09	6.63E-07	0.	0.	0.		2.18E+01	2.18E+01
CD-115M	6.48E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.42E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.		0.
IN-114	1.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	1.49E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	5.90E+03		0.	0.								
IN-115M	4.54E-02	0.	0.	0.	0.	0.	0.	0.	0.	5.90E+03	5.90E+03	5.90E+03
SN-113	1.41E+10	0.	0.	0.	0.	0.	0.	0.	0.		0.	0.
SN-117M	6.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.88E+14	1.59E+03	4.98E-05	0.	0.	0.	0.	0.		0.	0.	0.
					-			٠.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
SN-121M	2.06E+14	1.41E+14	1.10E+14	5.85E+13	4.70E+12	6.93E+08	7.84E-03	0.	0.	0.	0.	
SN-123	2.15E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.	-	0.
SN-125	1.27E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	3.63E+14	3.63E+14	3.63E+14	3.62E+14	3.62E+14	3.60E+14	3.55E+14	3.38E+14	2.95E+14	1.81E+14	0.	0.
SB-124	1.79E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.53E+13	3.54E+11
SB-125	8.23E+16	4.52E+13	3.03E+11	1.12E+06	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	5.08E+13	5.08E+13	5.07E+13	5.07E+13	5.07E+13	5.04E+13	4.97E+13	4.74E+13	4.12E+13		0.	0.
SB-126M	3.63E+14	3.63E+14	3.63E+14	3.62E+14	3.62E+14	3.60E+14	3.55E+14	3.38E+14	2.95E+14	2.54E+13 1.81E+14	6.35E+12	4.96E+10
TE-123	1.47E+03	4.53E+13	3.54E+11									
TE-123M	2.62E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.47E+03 0.	1.47E+03
TE-125M	2.01E+16	1.10E+13	7.39E+10	2.72E+05	0.	0.	0.	0.	0.	0.		0.
TE-127	9.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-127M	9.70E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	1.68E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-129M	2.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.49E+13		0.	0.								
J-131	2.19E-05	0.	0.	0.	0.	0.	0.	0.	0.	1.48E+13	1.47E+13	1.42E+13
XE-127	1.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	2.00E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	3.59E+17	1.50E+13	1.80E+10	9.04E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.97E+14	1.96E+14	0. 1.91E+14	0.	0.							
CS-136	7.73E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.80E+14	1.46E+14
CS-137	2.61E+19	1.30E+19	8.21E+18	2.59E+18	2.55E+16	2.41E+09	0.	0.	0.	0.	0.	0.
BA-133	1.03E+06	1.49E+05	4.08E+04	1.62E+03	4.01E-03	0.	0.	0.	0.	0.	0.	0.
BA-137M	2.47E+19	1.23E+19	7.77E+18	2.45E+18	2.41E+16	2.28E+09	0.	0.	0.	0.	0.	0.
BA-140	5.15E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LA-138	4.83E+04	0.	0.									
LA-140	5.93E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.83E+04 0.	4.83E+04
CE-139	1.27E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	8.42E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-142	2.73E+04	0. 2.73E+04	0. 2.73E+04	0.								
CE-144	3.81E+16	9.48E+04	1.74E-03	0.	0.	0.	0.	0.	0.	0.	0.	2.73E+04
PR-143	1.81E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.81E+16	9.48E+04	1.74E-03	0.	0.	0.	0.	0.	0.	0.		0.
PR-144M	4.57E+14	1.14E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	7.79E+05	7. 707.05	0.									
ND-147	7.61E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.79E+05	7.79E+05
									٠,	٧.	0.	0.

Nuklid	1.1.2030	30 a	F0. 0	100								
	1.1.2050	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PM-145	3.74E+08	1.16E+08	5.28E+07	7 468.06	0.060.00							
PM-146	8.57E+13		1.57E+11	7.46E+06 2.88E+08	2.96E+03			0.	0.	0.	0.	0.
PM-147	5.90E+17		1.08E+12	1.98E+06	3.26E-03	0.	0.	0.	0.	0.	0.	0.
PM-148	6.17E+00		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-148M	1.10E+02		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.73E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-146	1.12E+08	1.13E+08	1.13E+08		0.	0.	0.	0.	0.	0.	0.	0.
SM-147	2.07E+09	2.09E+09	2.09E+09	1.13E+08	1.13E+08	1.13E+08	1.13E+08	1.13E+08	1.13E+08	1.13E+08	1.13E+08	1.12E+08
SM-148	2.67E+04	2.67E+04		2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09
SM-149	3.36E+02	3.36E+02	2.67E+04	2.67E+04	2.67E+04	2.67E+04	2.67E+04	2.67E+04	2.67E+04	2.67E+04	2.67E+04	2.67E+04
SM-151	1.28E+17	1.01E+17	3.36E+02	3.36E+02	3.36E+02	3.36E+02	3.36E+02	3.36E+02	3.36E+02	3.36E+02	3.36E+02	3.36E+02
EU-149	1.08E-08	0.	8.69E+16	5.91E+16	1.27E+16	5.77E+13	1.18E+07	0.	0.	0.	0.	0.
EU-150	5.21E+09	2.84E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EU-152	8.95E+14	1.88E+14	1.89E+09	6.87E+08	1.19E+07	8.22E+00	0.	0.	0.	0.	0.	0.
EU-154	7.92E+17	7.45E+16	6.65E+13	4.94E+12	1.50E+08	2.33E-08	0.	0.	0.	0.	0.	0.
EU-155	1.69E+17	2.55E+15	1.54E+16	3.00E+14	4.33E+07	0.	0.	0.	0.	0.	0.	0.
EU-156	2.73E-01	0.	1.56E+14	1.44E+11	1.04E-01	0.	0.	0.	0.	0.	0.	0.
GD-152	4.96E+02	5.20E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GD-153	1.42E+12		5.24E+02	5.26E+02	5.27E+02							
TB-157	5.03E+08	3.33E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-160	8.73E+06	4.38E+08	3.99E+08	3.17E+08	1.26E+08	4.95E+06	4.81E+02	0.	0.	0.	0.	0.
HO-166M	2.53E+12		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-170	1.70E+06	2.49E+12 0.	2.46E+12	2.39E+12	2.13E+12	1.42E+12	4.47E+11	7.84E+09	7.54E+04	0.	0.	0.
TM-171	2.02E+09	• •	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176		4.00E+04	2.93E+01	4.23E-07	0.	0.	0.	0.	0.	0.	0.	0.
LU-177	1.14E+04 8.67E+05	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04	1.14E+04
LU-177M	3.78E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-175			0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	8.62E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TA-180	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.18E+08	2.14E+08	2.03E+08
TA-182	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02	1.03E+02
W-181	2.09E+10	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.19E+08	2.18E+08	2.14E+08	2.03E+08
W-185	1.46E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-185 W-188	2.90E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-188 RE-187	4.16E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07	2.95E+07
RE-188	4.21E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
											0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	l Mio a
OS-194 IR-192 IR-192M IR-194 IR-194M PT-193 TL-206 PB-204 PB-205 BI-208	3.70E+04 1.46E+07 1.46E+07 3.71E+04 1.87E+04 1.41E+08 8.04E+06 1.42E-01 3.78E+06 1.14E+07 8.08E+06	1.16E+03 1.34E+07 1.34E+07 1.16E+03 0. 1.35E+08 8.04E+06 1.42E-01 3.78E+06 1.14E+07	1.27E+07 1.27E+07 1.15E+02 0. 1.32E+08 8.04E+06 1.42E-01 3.78E+06 1.14E+07	3.56E-01 1.10E+07 1.10E+07 3.56E-01 0. 1.23E+08 8.04E+06 1.42E-01 3.78E+06	0. 6.17E+06 6.17E+06 0. 0. 9.30E+07 8.04E+06 1.42E-01 3.78E+06 1.14E+07	0. 8.25E+05 8.24E+05 0. 0. 3.53E+07 8.04E+06 1.42E-01 3.78E+06 1.13E+07	0. 2.62E+03 2.62E+03 0. 0. 2.20E+06 8.04E+06 1.42E-01 3.78E+06 1.13E+07	0. 4.72E-06 4.72E-06 0. 0. 1.34E+02 8.03E+06 1.42E-01 3.78E+06 1.12E+07	0. 0. 0. 0. 0. 1.18E-10 7.99E+06 1.42E-01 3.77E+06 1.07E+07	0. 0. 0. 0. 0. 7.86E+06 1.42E-01 3.76E+06 9.41E+06	0. 0. 0. 0. 0. 7.50E+06 1.42E-01 3.72E+06 6.46E+06	0. 0. 0. 0. 0. 0. 6.38E+06 1.42E-01 3.60E+06 1.73E+06
PO-210	5.10E+06	8.08E+06 3.23E+04		8.08E+06 3.23E+04	8.08E+06 3.23E+04	8.08E+06 3.23E+04	8.07E+06 3.23E+04	8.06E+06 3.22E+04	8.02E+06 3.21E+04	7.89E+06 3.16E+04	7.54E+06 3.01E+04	6.41E+06 2.56E+04
Summe	9.05E+19	4.35E+19	2.73E+19	8.65E+18	1.67E+17	1.58E+16	1.50E+16	1.40E+16	1.23E+16	8.86E+15	4.57E+15	1.59E+15

C.4

C.4.1

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie Forschungseinrichtungen (F)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.02E+11	1.69E+11	1.48E+11	8.95E+09	1.19E+05	0.	0.	0.		_		
C-14	1.21E+07	1.37E+07	1.48E+07	1.47E+07	1.44E+07	1.32E+07	1.04E+07	4.44E+06	0.	0.	0.	0.
NA-22	4.99E+10	4.95E+10	4.95E+10	8.12E+04	0.	0.	0.	0.	3.95E+05	8.30E+01	0.	0.
CA-41	1.88E+10	2.14E+10	2.30E+10	2.30E+10	2.30E+10	2.29E+10	2.26E+10	2.15E+10	0.	0.	0.	0.
CA-45	1.08E+08	1.08E+08	1.08E+08	0.	0.	0.	0.	0.	1.88E+10	1.17E+10	3.00E+09	2.58E+07
SC-46	8.92E+07	8.92E+07	8.92E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	1.20E+08	1.20E+08	1.20E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	9.88E+09	9.88E+09	9.88E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	2.39E+12	2.36E+12	2.36E+12	6.29E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	8.51E+07	8.51E+07	8.51E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.91E+12	1.91E+12	1.91E+12	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	8.73E+07	8.73E+07	8.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	8.14E+12	6.62E+12	6.59E+12	9.19E+09	3.48E-02	0.	0.	0.	0.	0.	0.	0.
NI-59	3.52E+11	4.00E+11	4.31E+11	4.31E+11	4.30E+11	4.28E+11	4.20E+11	3.93E+11	0.	0.	0.	0.
NI-63	1.21E+13	1.16E+13	1.14E+13	7.91E+12	1.87E+12	1.19E+10	6.38E+03	0.	3.27E+11	1.71E+11	2.70E+10	4.18E+07
ZN-65	2.29E+08	2.29E+08	2.29E+08	0.	0.	0.	0.302+03	0.	0.	0.	0.	0.
SR-89	7.54E+07	7.54E+07	7.54E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	8.00E+14	5.64E+14	4.78E+14	1.45E+14	1.24E+12	7.22E+04	0.	0.	0.	0.	0.	0.
Y-90	8.00E+14	5.64E+14	4.78E+14	1.45E+14	1.24E+12	7.22E+04	0.	0.	0.	0.	0.	0.
ZR-95	4.48E+11	4.48E+11	4.48E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95	5.19B+11	5.19E+11	5.19E+11	0.	0.	0.	0.		0.	0.	0.	0.
NB-95M	1.03E+08	1.03E+08	1.03E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	2.32E+13	2.32E+13	2.32E+13	2.72E-02	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	2.32E+13	2.32E+13	2.32E+13	2.72E-02	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	9.93E+12	9.81E+12	9.81E+12	3.61E+07	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.42E+12	2.39E+12	2.39E+12	8.82E+06	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.63E+08	8.67E+08	9.36E+08	9.36E+08	9.36E+08	9.36E+08	9.35E+08	0.	0.	0.	0.	0.
CS-134	1.57E+13	1.56E+13	1.56E+13	7.85E+05	0.	0.	9.35E+08 0.	9.35E+08	9.34E+08	9.31E+08	9.23E+08	8.95E+08
CS-135	1.25E+10	1.41E+10	1.53E+10	1.53E+10	1.53E+10	1.53E+10	1.53E+10	0.	0.	0.	0.	0.
CS-137	1.20E+15	8.56E+14	7.28E+14	2.29E+14	2.26E+12	2.14E+05	0.	1.52E+10	1.51E+10	1.48E+10	1.40E+10	1.13E+10
BA-137M	1.13E+15	8.08E+14	6.87E+14	2.16E+14	2.13E+12	2.02E+05		0.	0.	0.	0.	0.
						2.020+03	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-144	2.96E+12	2.96E+12	2.96E+12	1.36E-07	0.	0.	0.	0.	0.			
PR-144	2.96E+12	2.96E+12	2.96E+12	1.36E-07	0.	0.	0.	0.		0.	0.	0.
PR-144M	3.50E+10	3.50E+10	3.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	1.42E-01	1.62E-01	1.75E-01	1.76E-01	1.76E-01	1.76E-01	1.76E-01		0.	0.	0.	0.
PM-147	3.57E+12	3.54E+12	3.54E+12	6.47E+06	0.	0.	0.	1.76E-01	1.76E-01	1.76E-01	1.76E-01	1.76E-01
SM-147	4.42E+03	5.03E+03	5.43E+03	5.52E+03	5.52E+03	5.52E+03		0.	0.	0.	0.	0.
SM-148	0.	0.	0.	0.	0.	0.	5.52E+03	5.52E+03	5.52E+03	5.52E+03	5.52E+03	5.52E+03
EU-152	3.84E+09	2.16E+09	1.86E+09	1.43E+08	4.95E+03	0.		0.	0.	0.	1.95E-14	6.50E-14
EU-154	7.05E+12	4.30E+12	4.08E+12	7.22E+10	7.08E+03	0.	0.	0.	0.	0.	0.	0.
EU-155	2.07E+08	1.78E+08	1.77E+08	1.22E+05	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	5.23E-04	6.70E-04	7.40E-04	8.00E-04	8.05E-04	* *	0.	0.	0.	0.	0.	0.
TL-206	8.56E+03	9.72E+03	1.05E+04	1.05E+04		8.05E-04						
TL-207	2.32E+09	2.64E+09	2.86E+09	2.88E+09	1.05E+04	1.06E+04	1.10E+04	1.35E+04	2.34E+04	7.45E+04	2.44E+05	4.93E+05
TL-208	2.88E+09	3.27E+09	3.53E+09	3.57E+09	2.93E+09	3.10E+09	3.57E+09	5.07E+09	8.35E+09	1.33E+10	1.47E+10	1.47E+10
TL-209	8.14E-01	5.59E+00	1.33E+01		3.57E+09							
TL-210	1.38E+06	1.57E+06	1.70E+06	6.09E+01 1.70E+06	1.11E+03	2.97E+04	4.46E+05	5.29E+06	3.12E+07	1.23E+08	2.63E+08	2.98E+08
PB-209	3.90E+01	2.67E+02	6.39E+02		1.70E+06	1.71E+06	1.77E+06	2.18E+06	3.78E+06	1.20E+07	3.94E+07	7.97E+07
PB-210	6.62E+09	7.51E+09	8.11E+09	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
PB-211	2.34E+09	2.66E+09	2.88E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PB-212	8.00E+09	9.10E+09	9.83E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
PB-214	6.62E+09	7.51E+09	8.11E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09
BI-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
BI-211	2.34E+09	2.66E+09	2.88E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
BI-212	8.00E+09	9.10E+09		2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
BI-213	3.90E+01	2.67E+02	9.83E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09
BI-214	6.62E+09	7.51E+09	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
BI-215	1.87E+03	2.13E+03	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PO-210	6.62E+09	7.51E+09	2.30E+03	2.32E+03	2.36E+03	2.50E+03	2.87E+03	4.08E+03	6.73E+03	1.07E+04	1.19E+04	1.19E+04
PO-211	6.43E+06	7.32E+06	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PO-212	5.13E+09		7.91E+06	7.97E+06	8.11E+06	8.58E+06	9.88E+06	1.40E+07	2.31E+07	3.67E+07	4.08E+07	4.08E+07
PO-212	3.81E+01	5.83E+09	6.30E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09
PO-214	6.59E+09	2.62E+02	6.25E+02	2.85E+03	5.22E+04	1.39E+06	2.09E+07	2.48E+08	1.46E+09	5.74E+09	1.23E+10	1.40E+10
PO-214		7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PO-215 PO-216	2.33E+09	2.65E+09	2.87E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
PO-218	8.00E+09	9.10E+09	9.83E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09
AT-215	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
	5.36E+03	6.10E+03	6.59E+03	6.64E+03	6.76E+03	7.15E+03	8.23E+03	1.17E+04	1.93E+04	3.06E+04	3.40E+04	3.40E+04
AT-217	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
												Z.45B710

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AT-218	1.32E+06	1.50E+06	1.62E+06	1.62E+06	1.62E+06	1.63E+06	1.69E+06	2.07E+06	3.60E+06	1.15E+07	3.75E+07	7.59E+07
AT-219	1.93E+03	2.20E+03	2.37E+03	2.39E+03	2.43E+03	2.57E+03	2.96E+03	4.21E+03	6.93E+03	1.10E+04	1.22E+04	1.22E+04
RN-217	4.67E-03	3.21E-02	7.67E-02	3.50E-01	6.40E+00	1.71E+02	2.56E+03	3.03E+04	1.79E+05	7.04E+05	1.51E+06	1.71E+06
RN-218	1.32E+03	1.50E+03	1.62E+03	1.62E+03	1.62E+03	1.63E+03	1.69E+03	2.07E+03	3.60E+03	1.15E+04	3.75E+04	7.59E+04
RN-219	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
RN-220	8.00E+09	9.10E+09	9.83E+09	9.95E+09	9.95E+09	9.95E+09						
RN-222	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
FR-221	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
FR-223	3.22E+07	3.66E+07	3.96E+07	3.99E+07	4.05E+07	4.29E+07	4.94E+07	7.02E+07	1.16E+08	1.84E+08	2.04E+08	2.04E+08
RA-223	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
RA-224	8.00E+09	9.10E+09	9.83E+09	9.95E+09	9.95E+09	9.95E+09						
RA-225	3.91E+01	2.68E+02	6.40E+02	2.92E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
RA-226	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
RA-228	8.12E+09	9.21E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95B+09	9.95E+09	9.95E+09	9.95E+09
AC-225	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
AC-227	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
AC-228	8.08E+09	9.18E+09	9.91E+09	9.95E+09	9.95E+09	9.95E+09						
TH-227	2.31E+09	2.63E+09	2.84E+09	2.85E+09	2.90E+09	3.06E+09	3.53E+09	5.01E+09	8.26E+09	1.31E+10	1.46E+10	1.46E+10
TH-228	8.00E+09	9.10E+09	9.83E+09	9.95E+09	9.95E+09	9.95E+09						
TH-229	3.93E+01	2.69E+02	6.41E+02	2.92E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
TH-230	6.62E+09	7.51E+09	8.11E+09	8.12E+09	8.16E+09	8.35E+09	8.92E+09	1.11E+10	1.90E+10	5.88E+10	1.89E+11	3.80E+11
TH-231	1.17E+10	1.33E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.45E+10	1.46E+10	1.48E+10	1.48E+10	1.48E+10
TH-232	8.12E+09	9.21E+09	9.95E+09	9.95E+09	9.95E+09							
TH-234	3.39E+11	3.84E+11	4.14E+11	4.11E+11	4.11E+11	4.11E+11						
PA-231	2.35E+09	2.67E+09	2.88E+09	2.90E+09	2.95E+09	3.11E+09	3.59E+09	5.09E+09	8.38E+09	1.33E+10	1.48E+10	1.48E+10
PA-233	4.99E+08	1.14E+09	1.62E+09	2.88E+09	7.18E+09	1.48E+10	1.84E+10	1.85E+10	1.84E+10	1.80E+10	1.68E+10	1.34E+10
PA-234	5.40E+08	6.13E+08	6.62E+08	6.58E+08	6.58E+08	6.58E+08						
PA-234M	3.39E+11	3.84E+11	4.14E+11	4.11E+11	4.11E+11	4.11E+11						
U-233	3.51E+04	1.41E+05	2.61E+05	7.54E+05	5.25E+06	4.11E+07	1.93E+08	7.45E+08	2.23E+09	6.43E+09	1.28E+10	1.42E+10
U-234	1.22E+10	1.73E+10	2.06E+10	2.61E+10	3.52E+10	3.82E+10	4.03E+10	4.76E+10	6.77E+10	1.30E+11	2.52E+11	3.89E+11
U-235	1.17E+10	1.33E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.45E+10	1.46E+10	1.48E+10	1.48E+10	1.48E+10
U-236	1.28E+07	2.46E+07	3.33E+07	5.58E+07	1.45E+08	4.41E+08	1.18E+09	2.81E+09	4.11E+09	4.28E+09	4.25E+09	4.16E+09
U-237	1.01E+10	5.59E+09	4.74E+09	4.46E+08	2.94E+04	0.	0.	0.	0.	0.	0.	0.
U-238	3.36E+11	3.81E+11	4.11E+11	4.11E+11	4.11E+11							
NP-237	5.01E+08	1.14E+09	1.62E+09	2.89E+09	7.18E+09	1.48E+10	1.84E+10	1.85E+10	1.84E+10	1.80E+10	1.68E+10	1.34E+10
PU-238	5.04E+13	4.78E+13	4.63E+13	3.12E+13	6.43E+12	2.55E+10	3.50E+03	0.	0.	0.	0.	0.
PU-239	1.02E+13	1.15E+13	1.25E+13	1.24E+13	1.24E+13	1.21E+13	1.14E+13	9.36E+12	5.27E+12	7.04E+11	2.24E+09	4.08E+00
									J	· · · · · · · · · · · · · · · · · · ·	2.245+03	4.005+00

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-240 PU-241 PU-242 AM-241 AM-244 CM-244	2.92E+10 5.85E+13 3.12E+11	3.32E+10	3.58E+10 7.71E+13 3.12E+11	1.82E+13 3.58E+10 7.70E+13 0.	1.20E+09 3.58E+10	2.79E-06 3.58E+10 1.83E+13 0.	1.11E+13 0. 3.56E+10 7.41E+11 0.	0. 3.52E+10	0. 3.39E+10	0.	Δ.	0. 5.68E+09 0.
Summe	4.61E+15	3.29E+15	2.84E+15	9.00E+14	1.01E+14	4.63E+13	2.54E+13					0. 5.86E+12

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie Forschungseinrichtungen (F)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	1.42E-01	1.62E-01	1.75E-01	1.76E-01	1.76E-01	1.76E-01	1.76E-01	1.76E-01	1.76E-01	1 765 01	1 765 04	
SM-147	4.42E+03	5.03E+03	5.43E+03	5.52E+03	5.52E+03	5.52E+03	5.52E+03	5.52E+03	5.52E+03	1.76E-01	1.76E-01	1.76E-01
SM-148	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.52E+03	5.52E+03	5.52E+03
GD-152	5.23E-04	6.70E-04	7.40E-04	8.00E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04		0.	1.95E-14	6.50E-14
BI-210	8.60E+03	9.76E+03	1.05E+04	1.05E+04	1.05E+04	1.06E+04	1.10E+04	1.35E+04	8.05E-04	8.05E-04	8.05E-04	8.05E-04
BI-211	2.34E+09	2.66E+09	2.87E+09	2.88E+09	2.93E+09	3.10E+09	3.57E+09	5.07E+09	2.34E+04	7.45B+04	2.44E+05	4.93E+05
BI-212	2.88E+09	3.27E+09	3.53E+09	3.57E+09	3.57E+09	3.57E+09	3.57E+09		8.35E+09	1.33E+10	1.47E+10	1.47E+10
BI-213	8.14E-01	5.59B+00	1.33E+01	6.09E+01	1.11E+03	2.97E+04		3.57E+09	3.57E+09	3.57E+09	3.57E+09	3.57E+09
BI-214	1.39E+06	1.58E+06	1.70E+06	1.70E+06	1.70E+06	1.71E+06	4.46E+05	5.29E+06	3.12E+07	1.23E+08	2.63E+08	2.98E+08
PO-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	1.77E+06	2.18E+06	3.78E+06	1.20E+07	3.94E+07	7.97E+07
PO-211	6.43E+06	7.32E+06	7.91E+06	7.97E+06	8.11E+06	8.58E+06	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PO-212	5.13E+09	5.83E+09	6.30E+09	6.37E+09	6.37E+09	6.37E+09	9.88E+06	1.40E+07	2.31E+07	3.67E+07	4.08E+07	4.08E+07
PO-213	3.81E+01	2.62E+02	6.25E+02	2.85E+03	5.22E+04		6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09	6.37E+09
PO-214	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	1.39E+06	2.09E+07	2.48E+08	1.46E+09	5.74E+09	1.23E+10	1.40E+10
PO-215	2.33E+09	2.65E+09	2.87E+09	2.89E+09	2.94E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PO-216	8.00E+09	9.10E+09	9.83E+09	9.95E+09	9.95E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
PO-218	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	9.95E+09						
AT-215	5.36E+03	6.10E+03	6.59E+03	6.64E+03		8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
AT-217	3.90E+01	2.67E+02	6.39E+02		6.76E+03	7.15E+03	8.23E+03	1.17E+04	1.93E+04	3.06E+04	3.40E+04	3.40E+04
AT-218	1.32E+06	1.49E+06	1.61E+06	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
AT-219	1.87E+03	2.13E+03	2.30E+03	1.62E+06	1.62E+06	1.63E+06	1.69E+06	2.07E+06	3.59E+06	1.15E+07	3.75E+07	7.58E+07
RN-217	4.67E-03	3.21E-02		2.32E+03	2.36E+03	2.50E+03	2.87E+03	4.08E+03	6.73E+03	1.07E+04	1.19E+04	1.19E+04
RN-218	1.32E+03	1.50E+03	7.67E-02	3.50E-01	6.40E+00	1.71E+02	2.56E+03	3.03E+04	1.79E+05	7.04E+05	1.51E+06	1.71E+06
RN-219	2.34E+09	2.66E+09	1.62E+03	1.62E+03	1.62E+03	1.63E+03	1.69E+03	2.07E+03	3.60E+03	1.15E+04	3.75E+04	7.59E+04
RN-220	8.00E+09	9.10E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
RN-222	6.59E+09		9.83E+09	9.95E+09								
FR-221	3.90E+01	7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
FR-223		2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
RA-223	1.93E+03	2.20E+03	2.37E+03	2.39E+03	2.43E+03	2.57E+03	2.96E+03	4.21E+03	6.93E+03	1.10E+04	1.22E+04	1.22E+04
RA-224	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
RA-226	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
3.0.225	2 007 04											- 1.20 a
AC-225	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
AC-227	3.23E+07	3.67E+07	3.97E+07	3.99E+07	4.05E+07	4.29E+07	4.94E+07	7.02E+07	1.16E+08	1.84E+08	2.04E+08	2.04E+08
TH-227	2.31E+09	2.63E+09	2.84E+09	2.85E+09	2.90E+09	3.06E+09	3.53E+09	5.01E+09	8.26E+09	1.31E+10	1.46E+10	1.46E+10
TH-228	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
TH-229	3.93E+01	2.69E+02	6.41E+02	2.92E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09		9.95E+09
TH-230	6.62E+09	7.51E+09	8.11E+09	8.12E+09	8.16E+09	8.35E+09	8.92E+09	1.11E+10	1.90E+10		1.26E+10	1.43E+10
TH-232	8.12E+09	9.21E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09	9.95E+09		5.88E+10	1.89E+11	3.80E+11
PA-231	2.35E+09	2.67E+09	2.88E+09	2.90E+09	2.95E+09	3.11E+09			9.95E+09	9.95E+09	9.95E+09	9.95E+09
U-233	3.51E+04	1.41E+05	2.61E+05	7.54E+05	5.25E+06		3.59E+09	5.09E+09	8.38E+09	1.33E+10	1.48E+10	1.48E+10
U-234	1.22E+10	1.73E+10	2.06E+10			4.11E+07	1.93E+08	7.45E+08	2.23E+09	6.43E+09	1.28E+10	1.42E+10
U-235	1.17E+10	1.33E+10		2.61E+10	3.52E+10	3.82E+10	4.03E+10	4.76E+10	6.77E+10	1.30E+11	2.52E+11	3.89E+11
U-236			1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.45E+10	1.46E+10	1.48E+10	1.48E+10	1.48E+10
	1.28E+07	2.46E+07	3.33E+07	5.58E+07	1.45E+08	4.41E+08	1.18E+09	2.81E+09	4.11E+09	4.28E+09	4.25E+09	4.16E+09
U-238	3.36E+11	3.81E+11	4.11E+11									
NP-237	5.01E+08	1.14E+09	1.62E+09	2.89E+09	7.18E+09	1.48E+10	1.84E+10	1.85E+10	1.84E+10	1.80E+10	1.68E+10	1.34E+10
PU-238	5.04E+13	4.78E+13	4.63E+13	3.12E+13	6.43E+12	2.55E+10	3.50E+03	0.	0.	0.	0.	0.
PU-239	1.02E+13	1.15E+13	1.25E+13	1.24E+13	1.24E+13	1.21E+13	1.14E+13	9.36E+12	5.27E+12	7.04E+11	2.24E+09	4.08E+00
PU-240	1.25E+13	1.41E+13	1.52E+13	1.52E+13	1.48E+13	1.38E+13	1.11E+13	5.30E+12	6.36E+11	3.80E+08	2.34E-01	
PU-241	1.03E+10	5.79E+09	4.94E+09	4.45E+08	2.94E+04	6.83E-11	0.	0.	0.505711	0.	-	0.
PU-242	2.92E+10	3.32E+10	3.58E+10	3.58E+10	3.58E+10	3.58E+10	3.56E+10	3.52E+10			0.	0.
AM-241	5.85E+13	7.16E+13	7.71E+13	7.70E+13	5.63E+13	1.83E+13	7.41E+11		3.39E+10	2.98E+10	2.06E+10	5.68E+09
CM-244	1.28E+09	7.52E+08	6.22E+08	9.47E+07	4.49E+04	0.		9.87E+06	9.29E-08	0.	0.	0.
				J.4/E40/	4.475+04	0.	0.	0.	0.	0.	0.	0.
Summe	1.32E+14	1.46E+14	1.52E+14	1.36E+14	9.06E+13	4.49E+13	2.40E+13	1.53E+13	6.68E+12	1.83E+12	2.07E+12	3.35E+12

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie Forschungseinrichtungen (F)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.02E+11	1.69E+11	1.48E+11	8.95E+09	1.19E+05	0.	0.	0.	0.	0.	0.	0.
C-14	1.21E+07	1.37E+07	1.48E+07	1.47E+07	1.44E+07	1.32E+07	1.04E+07	4.44E+06	3.95E+05	8.30E+01	0.	0.
NA-22	4.99E+10	4.95E+10	4.95E+10	8.12E+04	0.	0.	0.	0.	0.	0.	0.	0.
CA-41	1.88E+10	2.14E+10	2.30E+10	2.30E+10	2.30E+10	2.29E+10	2.26E+10	2.15E+10	1.88E+10	1.17E+10	3.00E+09	2.58E+07
CA-45	1.08E+08	1.08E+08	1.08E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	8.92E+07	8.92E+07	8.92E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	1.20E+08	1.20E+08	1.20E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	9.88E+09	9.88E+09	9.88E+09	0.	0.	0.	0.	0.	0.	0.	0.	0
FE-55	2.39E+12	2.36E+12	2.36E+12	6.29E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	8.51E+07	8.51E+07	8.51E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.91E+12	1.91E+12	1.91E+12	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	8.73E+07	8.73E+07	8.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	8.14E+12	6.62E+12	6.59E+12	9.19E+09	3.48E-02	0.	0.	0.	0.	0.	0.	0.
NI-59	3.52E+11	4.00E+11	4.31E+11	4.31E+11	4.30E+11	4.28E+11	4.20E+11	3.93E+11	3.27E+11	1.71E+11	2.70E+10	4.18E+07
NI-63	1.21E+13	1.16E+13	1.14E+13	7.91E+12	1.87E+12	1.19E+10	6.38E+03	0.	0.	0.	0.	0.
ZN-65	2.29E+08	2.29E+08	2.29E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-89	7.54E+07	7.54E+07	7.54E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	8.00E+14	5.64E+14	4.78E+14	1.45E+14	1.24E+12	7.22E+04	0.	0.	0.	0.	0.	0.
Y-90	8.00E+14	5.64E+14	4.78E+14	1.45E+14	1.24E+12	7.22E+04	0.	0.	0.	0.	0.	0.
ZR-95	4.48E+11	4.48E+11	4.48E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95	5.19E+11	5.19E+11	5.19E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	1.03E+08	1.03E+08	1.03E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	2.32E+13	2.32E+13	2.32E+13	2.72E-02	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	2.32E+13	2.32E+13	2.32E+13	2.72E-02	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	9.93E+12	9.81E+12	9.81E+12	3.61E+07	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.42E+12	2.39E+12	2.39E+12	8.82E+06	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.63E+08	8.67E+08	9.36E+08	9.36E+08	9.36E+08	9.36E+08	9.35E+08	9.35E+08	9.34E+08	9.31E+08	9.23E+08	8.95E+08
CS-134	1.57E+13	1.56E+13	1.56E+13	7.85E+05	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.25E+10	1.41E+10	1.53E+10	1.53E+10	1.53E+10	1.53E+10	1.53E+10	1.52E+10	1.51E+10	1.48E+10	1.40E+10	1.13E+10
CS-137	1.20E+15	8.56E+14	7.28E+14	2.29E+14	2.26E+12	2.14E+05	0.	0.	0.	0.	0.	0.
BA-137M	1.13E+15	8.08E+14	6.87E+14	2.16E+14	2.13E+12	2.02E+05	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-144	2.96E+12	2.96E+12	2.96E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	2.96E+12	2.96E+12	2.96E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.50E+10	3.50E+10	3.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-147	3.57E+12	3.54E+12	3.54E+12	6.47E+06	0.	0.	0.	0.	0.	0.	0.	0.
EU-152	3.84E+09	2.16E+09	1.86E+09	1.43E+08	4.95E+03	0.	0.	0.	0.	0.	0.	0.
EU-154	7.05E+12	4.30E+12	4.08E+12	7.22E+10	7.08E+03	0.	0.	0.	0.	0.	0.	0.
EU-155	2.07E+08	1.78E+08	1.77E+08	1.22E+05	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	8.56E+03	9.72E+03	1.05E+04	1.05E+04	1.05E+04	1.06E+04	1.10E+04	1.35E+04	2.34E+04	7.45E+04	2.44E+05	4.93E+05
TL-207	2.32E+09	2.64E+09	2.86E+09	2.88E+09	2.93E+09	3.10E+09	3.57E+09	5.07E+09	8.35E+09	1.33E+10	1.47E+10	1.47E+10
TL-208	2.88E+09	3.27E+09	3.53E+09	3.57E+09								
TL-209	8.14E-01	5.59E+00	1.33E+01	6.09E+01	1.11E+03	2.97E+04	4.46E+05	5.29E+06	3.12E+07	1.23E+08	2.63E+08	2.98E+08
TL-210	1.38E+06	1.57E+06	1.70E+06	1.70E+06	1.70E+06	1.71E+06	1.77E+06	2.18E+06	3.78E+06	1.20E+07	3.94E+07	7.97E+07
PB-209	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
PB-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
PB-211	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
PB-212	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
PB-214	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
BI-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
BI-211	6.46E+06	7.35E+06	7.94E+06	7.97E+06	8.11E+06	8.58E+06	9.88E+06	1.40E+07	2.31E+07	3.67E+07	4.08E+07	4.08E+07
BI-212	5.13E+09	5.83E+09	6.30E+09	6.37E+09								
BI-213	3.81E+01	2.62E+02	6.25E+02	2.85E+03	5.22E+04	1.39E+06	2.09E+07	2.48E+08	1.46E+09	5.74E+09	1.23E+10	1.40E+10
BI-214	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
BI-215	1.87E+03	2.13E+03	2.30E+03	2.32E+03	2.36E+03	2.50E+03	2.87E+03	4.08E+03	6.73E+03	1.07E+04	1.19E+04	1.19E+04
PO-215	5.36E+03	6.10E+03	6.59E+03	6.64E+03	6.76E+03	7.15E+03	8.23E+03	1.17E+04	1.93E+04	3.06E+04	3.40E+04	3.40E+04
PO-218	1.32E+06	1.50E+06	1.62E+06	1.62E+06	1.62E+06	1.63E+06	1.69E+06	2.07E+06	3.60E+06	1.15E+07	3.75E+07	7.59E+07
AT-217	4.67E-03	3.21E-02	7.67E-02	3.50E-01	6.40E+00	1.71E+02	2.56E+03	3.03E+04	1.79E+05	7.04E+05	1.51E+06	1.71E+06
AT-218	1.32E+03	1.50E+03	1.62E+03	1.62E+03	1.62E+03	1.63E+03	1.69E+03	2.07E+03	3.60E+03	1.15E+04	3.75E+04	7.59E+04
AT-219	5.79E+01	6.59E+01	7.12E+01	7.18E+01	7.30E+01	7.72E+01	8.89E+01	1.26E+02	2.08E+02	3.31E+02	3.67E+02	3.67E+02
FR-223	3.22E+07	3.66E+07	3.96E+07	3.99E+07	4.05E+07	4.29E+07	4.94E+07	7.02E+07	1.16E+08	1.84E+08	2.04E+08	2.04E+08
RA-225	3.91E+01	2.68E+02	6.40E+02	2.92E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
RA-228	8.12E+09	9.21E+09	9.95E+09									
AC-227	2.31E+09	2.63E+09	2.84E+09	2.85E+09	2.90E+09	3.06E+09	3.53E+09	5.01E+09	8.26E+09	1.31E+10	1.46E+10	1.46E+10
AC-228	8.08E+09	9.18E+09	9.91E+09	9.95E+09								
TH-231	1.17E+10	1.33E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.45E+10	1.46E+10	1.48E+10	1.48E+10	1.48E+10
TH-234	3.39E+11	3.84E+11	4.14E+11	4.11E+11								
PA-233	4.99E+08	1.14E+09	1.62E+09	2.88E+09	7.18E+09	1.48E+10	1.84E+10	1.85E+10	1.84E+10	1.80E+10	1.68E+10	1.34E+10
PA-234	5.40E+08	6.13E+08	6.62E+08	6.58E+08								

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PA-234M	3.39E+11	3.84E+11	4.14E+11	4.11E+11								
U-237	1.01E+10	5.59E+09	4.74E+09	4.46E+08	2.94E+04	0.	0.	0.	0.	0.	0.	0.
PU-241	4.19E+14	2.37E+14	2.02E+14	1.82E+13	1.20E+09	2.79E-06	0.	0.	0.	0.	0.	0.
AM-244	3.12E+11	3.12E+11	3.12E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	4.47E+15	3.14E+15	2.69E+15	7.64E+14	1.01E+13	1.41E+12	1.40E+12	1.38E+12	1.36E+12	1.38E+12	1.77E+12	2.51E+12

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-220	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
RN-222	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
FR-221	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
FR-223	3.22E+07	3.66E+07	3.96E+07	3.99E+07	4.05E+07	4.29E+07	4.94E+07	7.02E+07	1.16E+08	1.84E+08	2.04E+08	2.04E+08
RA-223	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
RA-224	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
RA-225	3.91E+01	2.68E+02	6.40E+02	2.92E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
RA-226	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
RA-228	8.12E+09	9.21E+09	9.95E+09									
AC-225	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
AC-227	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
AC-228	8.08E+09	9.18E+09	9.91E+09	9.95E+09								
TH-227	2.31E+09	2.63E+09	2.84E+09	2.85E+09	2.90E+09	3.06E+09	3.53E+09	5.01E+09	8.26E+09	1.31E+10	1.46E+10	1.46E+10
TH-228	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
TH-229	3.93E+01	2.69E+02	6.41E+02	2.92E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
TH-230	6.62E+09	7.51E+09	8.11E+09	8.12E+09	8.16E+09	8.35E+09	8.92E+09	1.11E+10	1.90E+10	5.88E+10	1.89E+11	3.80E+11
TH-231	1.17E+10	1.33E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.45E+10	1.46E+10	1.48E+10	1.48E+10	1.48E+10
TH-232	8.12E+09	9.21E+09	9.95E+09									
TH-234	3.39E+11	3.84E+11	4.14E+11	4.11E+11								
PA-231	2.35E+09	2.67E+09	2.88E+09	2.90E+09	2.95E+09	3.11E+09	3.59E+09	5.09E+09	8.38E+09	1.33E+10	1.48E+10	1.48E+10
PA-233	4.99E+08	1.14E+09	1.62E+09	2.88E+09	7.18E+09	1.48E+10	1.84E+10	1.85E+10	1.84E+10	1.80E+10	1.68E+10	1.34E+10
PA-234	5.40E+08	6.13E+08	6.62E+08	6.58E+08								
PA-234M	3.39E+11	3.84E+11	4.14E+11	4.11E+11								
U-233	3.51E+04	1.41E+05	2.61E+05	7.54E+05	5.25E+06	4.11E+07	1.93E+08	7.45E+08	2.23E+09	6.43E+09	1.28E+10	1.42E+10
U-234	1.22E+10	1.73E+10	2.06E+10	2.61E+10	3.52E+10	3.82E+10	4.03E+10	4.76E+10	6.77E+10	1.30E+11	2.52E+11	3.89E+11
U-235	1.17E+10	1.33E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.44E+10	1.45E+10	1.46E+10	1.48E+10	1.48E+10	1.48E+10
U-236	1.28E+07	2.46E+07	3.33E+07	5.58E+07	1.45E+08	4.41E+08	1.18E+09	2.81E+09	4.11E+09	4.28E+09	4.25E+09	4.16E+09
U-237	1.01E+10	5.59E+09	4.74E+09	4.46E+08	2.94E+04	0.	0.	0.	0.	0.	0.	0.
U-238	3.36E+11	3.81E+11	4.11E+11									
NP-237	5.01E+08	1.14E+09	1.62E+09	2.89E+09	7.18E+09	1.48E+10	1.84E+10	1.85E+10	1.84E+10	1.80E+10	1.68E+10	1.34E+10
PU-238	5.04E+13	4.78E+13	4.63E+13	3.12E+13	6.43E+12	2.55E+10	3.50E+03	0.	0.	0.	0.	0.
PU-239	1.02E+13	1.15E+13	1.25E+13	1.24E+13	1.24E+13	1.21E+13	1.14E+13	9.36E+12	5.27E+12	7.04E+11	2.24E+09	4.08E+00
PU-240	1.25E+13	1.41E+13	1.52E+13	1.52E+13	1.48E+13	1.38E+13	1.11E+13	5.30E+12	6.36E+11	3.80E+08	2.34E-01	0.
PU-241	4.19E+14	2.37E+14	2.02E+14	1.82E+13	1.20E+09	2.79E-06	0.	0.	0.	0.	0.	0.
PU-242	2.92E+10	3.32E+10	3.58E+10	3.58E+10	3.58E+10	3.58E+10	3.56E+10	3.52E+10	3.39E+10	2.98E+10	2.06E+10	5.68E+09
AM-241	5.85E+13	7.16E+13	7.71E+13	7.70E+13	5.63E+13	1.83E+13	7.41E+11	9.87E+06	9.29E-08	0.	0.	0.
AM-244	3.12E+11	3.12E+11	3.12E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie Forschungseinrichtungen (F)

1	Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
	TL-206	8.56E+03	9.72E+03	1.05E+04	1.05E+04	1.05E+04	1.06E+04	1.10E+04	1.35E+04	2.34E+04	7.45E+04	2.44E+05	4.93E+05
,	TL-207	2.32E+09	2.64E+09	2.86E+09	2.88E+09	2.93E+09	3.10E+09	3.57E+09	5.07E+09	8.35E+09	1.33E+10	1.47E+10	1.47B+10
-	TL-208	2.88E+09	3.27E+09	3.53E+09	3.57E+09								
7	TL-209	8.14E-01	5.59E+00	1.33E+01	6.09E+01	1.11E+03	2.97E+04	4.46E+05	5.29E+06	3.12E+07	1.23E+08	2.63E+08	2.98E+08
7	TL-210	1.38E+06	1.57E+06	1.70E+06	1.70E+06	1.70E+06	1.71E+06	1.77E+06	2.18E+06	3.78E+06	1.20E+07	3.94E+07	7.97E+07
1	PB-209	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
1	PB-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
1	PB-211	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
]	PB-212	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
Į	PB-214	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
1	BI-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
1	BI-211	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
1	BI-212	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
1	BI-213	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
1	BI-214	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
	BI-215	1.87E+03	2.13E+03	2.30E+03	2.32E+03	2.36E+03	2.50E+03	2.87E+03	4.08E+03	6.73E+03	1.07E+04	1.19E+04	1.19E+04
	PO-210	6.62E+09	7.51E+09	8.11E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
	PO-211	6.43E+06	7.32E+06	7.91E+06	7.97E+06	8.11E+06	8.58E+06	9.88E+06	1.40E+07	2.31E+07	3.67E+07	4.08E+07	4.08E+07
	PO-212	5.13E+09	5.83E+09	6.30E+09	6.37E+09								
	PO-213	3.81E+01	2.62E+02	6.25E+02	2.85E+03	5.22E+04	1.39E+06	2.09E+07	2.48E+08	1.46E+09	5.74E+09	1.23E+10	1.40E+10
	PO-214	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
	PO-215	2.33E+09	2.65E+09	2.87E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10
	PO-216	8.00E+09	9.10E+09	9.83E+09	9.95E+09								
	PO-218	6.59E+09	7.48E+09	8.08E+09	8.11E+09	8.11E+09	8.15E+09	8.45E+09	1.04E+10	1.80E+10	5.73E+10	1.88E+11	3.79E+11
	AT-215	5.36E+03	6.10E+03	6.59E+03	6.64E+03	6.76E+03	7.15E+03	8.23E+03	1.17E+04	1.93E+04	3.06E+04	3.40E+04	3.40E+04
	AT-217	3.90E+01	2.67E+02	6.39E+02	2.91E+03	5.33E+04	1.42E+06	2.13E+07	2.53E+08	1.50E+09	5.86E+09	1.26E+10	1.43E+10
	AT-218	1.32E+06	1.50E+06	1.62E+06	1.62E+06	1.62E+06	1.63E+06	1.69E+06	2.07E+06	3.60E+06	1.15E+07	3.75E+07	7.59E+07
	AT-219	1.93E+03	2.20E+03	2.37E+03	2.39E+03	2.43E+03	2.57E+03	2.96E+03	4.21E+03	6.93E+03	1.10E+04	1.22E+04	1.22E+04
	RN-217	4.67E-03	3.21E-02	7.67E-02	3.50E-01	6.40E+00	1.71E+02	2.56E+03	3.03E+04	1.79E+05	7.04E+05	1.51E+06	1.71E+06
	RN-218	1.32E+03	1.50E+03	1.62E+03	1.62E+03	1.62E+03	1.63E+03	1.69E+03	2.07E+03	3.60E+03	1.15E+04	3.75E+04	7.59E+04
H	RN-219	2.34E+09	2.66E+09	2.88E+09	2.89E+09	2.94E+09	3.11E+09	3.58E+09	5.08E+09	8.37E+09	1.33E+10	1.48E+10	1.48E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CM-244	1.28E+09	7.52E+08	6.22E+08	9.47E+07	4.49E+04	0.	0.	0.	0.	0.	0.	0.
												-
Summe	5.52E+14	3.83E+14	3.55E+14	1.55E+14	9.15E+13	4.58E+13	2.49E+13	1.63E+13	7.68E+12	3.02E+12	3.80E+12	5.85E+12

W S 1004

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie Forschungseinrichtungen (F)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.02E+11	1.69E+11	1.48E+11	8.95E+09	1.19E+05	0.	0.	0.	0.	0.	0.	0.
C-14	1.21E+07	1.37E+07	1.48E+07	1.47E+07	1.44E+07	1.32E+07	1.04E+07	4.44E+06	3.95E+05	8.30E+01	0.	0.
NA-22	4.99E+10	4.95E+10	4.95E+10	8.12E+04	0.	0.	0.	0.	0.	0.	0.	0.
CA-41	1.88E+10	2.14E+10	2.30E+10	2.30E+10	2.30E+10	2.29E+10	2.26E+10	2.15E+10	1.88E+10	1.17E+10	3.00E+09	2.58E+07
CA-45	1.08E+08	1.08E+08	1.08E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	8.92E+07	8.92E+07	8.92E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	1.20E+08	1.20E+08	1.20E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	9.88E+09	9.88E+09	9.88E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	2.39E+12	2.36E+12	2.36E+12	6.29E+06	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	8.51E+07	8.51E+07	8.51E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.91E+12	1.91E+12	1.91E+12	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	8.73E+07	8.73E+07	8.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	8.14E+12	6.62E+12	6.59E+12	9.19E+09	3.48E-02	0.	0.	0.	0.	0.	0.	0.
NI-59	3.52E+11	4.00E+11	4.31E+11	4.31E+11	4.30E+11	4.28E+11	4.20E+11	3.93E+11	3.27E+11	1.71E+11	2.70E+10	4.18E+07
NI-63	1.21E+13	1.16E+13	1.14E+13	7.91E+12	1.87E+12	1.19E+10	6.38E+03	0.	0.	0.	0.	0.
ZN-65	2.29E+08	2.29E+08	2.29E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-89	7.54E+07	7.54E+07	7.54E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	8.00E+14	5.64E+14	4.78E+14	1.45E+14	1.24E+12	7.22E+04	0.	0.	0.	0.	0.	0.
Y-90	8.00E+14	5.64E+14	4.78E+14	1.45E+14	1.24E+12	7.22E+04	0.	0.	0.	0.	0.	0.
ZR-95	4.48E+11	4.48E+11	4.48E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95	5.19E+11	5.19E+11	5.19E+11	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	1.03E+08	1.03E+08	1.03E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	2.32E+13	2.32E+13	2.32E+13	2.72E-02	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	2.32E+13	2.32E+13	2.32E+13	2.72E-02	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	9.93E+12	9.81E+12	9.81E+12	3.61E+07	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	2.42E+12	2.39E+12	2.39E+12	8.82E+06	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.63E+08	8.67E+08	9.36E+08	9.36E+08	9.36E+08	9.36E+08	9.35E+08	9.35E+08	9.34E+08	9.31E+08	9.23E+08	8.95E+08
CS-134	1.57E+13	1.56E+13	1.56E+13	7.85E+05	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.25E+10	1.41E+10	1.53E+10	1.53E+10	1.53E+10	1.53E+10	1.53E+10	1.52E+10	1.51E+10	1.48E+10	1.40E+10	1.13E+10
CS-137	1.20E+15	8.56E+14	7.28E+14	2.29E+14	2.26E+12	2.14E+05	0.	0.	0.	0.	0.	0.
BA-137M	1.13E+15	8.08E+14	6.87E+14	2.16E+14	2.13E+12	2.02E+05	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-144	2.96E+12	2.96E+12	2.96E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	2.96E+12	2.96E+12	2.96E+12	1.36E-07	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.50E+10	3.50E+10	3.50E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	1.42E-01	1.62E-01	1.75E-01	1.76E-01								
PM-147	3.57E+12	3.54E+12	3.54E+12	6.47E+06	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	4.42E+03	5.03E+03	5.43E+03	5.52E+03								
SM-148	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.95E-14	6.50E-14
EU-152	3.84E+09	2.16E+09	1.86E+09	1.43E+08	4.95E+03	0.	0.	0.	0.	0.	0.	0.
EU-154	7.05E+12	4.30E+12	4.08E+12	7.22E+10	7.08E+03	0.	0.	0.	0.	0.	0.	0.
EU-155	2.07E+08	1.78E+08	1.77E+08	1.22E+05	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	5.23E-04	6.70E-04	7.40E-04	8.00E-04	8.05E-04							
Summe	4.05E+15	2.90E+15	2.48E+15	7.45E+14	9.21E+12	4.79E+11	4.58E+11	4.31E+11	3.62E+11	1.99E+11	4.48E+10	1.23E+10

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie kerntechnische Industrie (I)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	l Mio a
CO-60	2.37E+11	1.54E+11	1.52E+11	2.12E+08	8.02E-04	0.	0.	0.	0.	0.	0.	0.
SR-90	4.24E+12	2.54E+12	1.92E+12	5.84E+11	5.00E+09	2.90E+02	0.	0.	0.	0.	0.	0.
Y-90	4.24E+12	2.54E+12	1.92E+12	5.84E+11	5.00E+09	2.90E+02	0.	0.	0.	0.	0.	0.
TC-99	1.19E+13	1.26E+13	1.32E+13	1.32E+13	1.31E+13	1.31E+13	1.30E+13	1.27E+13	1.19E+13	9.50E+12	4.96E+12	5.08E+11
RU-106	1.36E+10	1.36E+10	1.36E+10	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.36E+10	1.36E+10	1.36E+10	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	4.56E+07	4.57E+07	4.57E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	9.24E+09	9.24E+09	9.24E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.97E+06	2.10E+06	2.18E+06	2.17E+06	2.15E+06	2.09E+06						
CS-134	1.96E+10	1.96E+10	1.96E+10	9.83E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	3.49E+07	3.72E+07	3.87E+07	3.87E+07	3.87E+07	3.87E+07	3.87E+07	3.86E+07	3.84E+07	3.76E+07	3.54E+07	2.87E+07
CS-137	2.92E+12	1.77E+12	1.35E+12	4.25E+11	4.19E+09	3.96B+02	0.	0.	0.	0.	0.	0.
BA-137M	2.76E+12	1.67E+12	1.27E+12	4.01E+11	3.95E+09	3.74E+02	0.	0.	0.	0.	0.	0.
CE-144	1.54E+10	1.54E+10	1.54E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	1.54E+10	1.54E+10	1.54E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	1.84E+08	1.84E+08	1.84E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	1.53E-03	1.63E-03	1.69E-03	1.70E-03								
TL-206	4.50E-01	2.13E+00	4.21E+00	1.35E+01	1.19E+02	1.33E+03	9.72E+03	5.59E+04	1.80E+05	4.38E+05	5.23E+05	2.63E+05
TL-207	1.56E+07	4.02E+07	5.97E+07	1.14E+08	3.42E+08	1.14E+09	3.34E+09	1.04E+10	2.59E+10	4.94E+10	5.64E+10	5.65E+10
TL-208	5.00E+10	5.19E+10	5.34E+10	3.87E+10								
TL-209	7.16E+02	2.33E+03	4.00E+03	1.04E+04	7.24E+04	8.73E+05	9.05E+06	9.32E+07	5.31E+08	2.06E+09	4.41E+09	5.01E+09
TL-210	2.38E+02	7.82E+02	1.34E+03	3.50E+03	2.35E+04	2.29E+05	1.60E+06	9.06E+06	2.92E+07	7.08E+07	8.45E+07	4.25E+07
PB-209	3.42E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
PB-210	3.47E+05	1.64E+06	3.24E+06	1.04E+07	9.16E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
PB-211	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
PB-212	1.39E+11	1.44E+11	1.48E+11	1.08E+11								
PB-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.02E+11	2.02E+11
BI-210	3.46E+05	1.63E+06	3.24E+06	1.04E+07	9.15E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
BI-211	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
BI-212	1.39E+11	1.44E+11	1.48E+11	1.08E+11								
BI-213	3.42E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.39E+11

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BI-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
BI-215	1.26E+01	3.25E+01	4.82E+01	9.18E+01	2.75E+02	9.15E+02	2.69E+03	8.39E+03	2.09E+04	3.98E+04	4.54E+04	4.55E+04
PO-210	3.33E+05	1.60E+06	3.18E+06	1.03E+07	9.12E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
PO-211	4.32E+04	1.11E+05	1.65E+05	3.15E+05	9.46E+05	3.14E+06	9.25E+06	2.88E+07	7.17E+07	1.37E+08	1.56E+08	1.56E+08
PO-212	8.69E+10	9.03E+10	9.30E+10	6.90E+10								
PO-213	3.35E+04	1.09E+05	1.87E+05	4.87E+05	3.39E+06	4.09E+07	4.24E+08	4.36E+09	2.49E+10	9.66E+10	2.07E+11	2.35E+11
PO-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.02E+11	2.02E+11
PO-215	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
PO-216	1.36E+11	1.41E+11	1.45E+11	1.08E+11								
PO-218	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
AT-215	3.60E+01	9.28E+01	1.38E+02	2.63E+02	7.89E+02	2.62E+03	7.71E+03	2.40E+04	5.98E+04	1.14E+05	1.30E+05	1.30E+05
AT-217	3.43E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
AT-218	2.27E+02	7.45E+02	1.28E+03	3.34E+03	2.24E+04	2.18E+05	1.52E+06	8.63E+06	2.78E+07	6.74E+07	8.05E+07	4.04E+07
AT-219	1.30E+01	3.35E+01	4.97E+01	9.46E+01	2.84E+02	9.43E+02	2.78E+03	8.65E+03	2.15E+04	4.10E+04	4.69E+04	4.69E+04
RN-217	4.11E+00	1.34E+01	2.30E+01	5.97E+01	4.16E+02	5.01E+03	5.20E+04	5.35E+05	3.05E+06	1.18E+07	2.53E+07	2.87E+07
RN-218	2.27E-01	7.45E-01	1.28E+00	3.34E+00	2.24E+01	2.18E+02	1.52E+03	8.63E+03	2.78E+04	6.74E+04	8.05E+04	4.04E+04
RN-219	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
RN-220	1.36E+11	1.41E+11	1.45B+11	1.08E+11								
RN-222	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
FR-221	3.43E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
FR-223	2.17E+05	5.58E+05	8.28E+05	1.58E+06	4.73E+06	1.57E+07	4.63E+07	1.44E+08	3.59E+08	6.83E+08	7.81E+08	7.82E+08
RA-223	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
RA-224	1.36E+11	1.41E+11	1.45E+11	1.08E+11								
RA-225	3.43E+04	1.12E+05	1.92E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
RA-226	1.13E+06	3.73E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
RA-228	9.88E+10	1.04E+11	1.09E+11	1.08E+11								
AC-225	3.43E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
AC-227	1.57E+07	4.04E+07	6.00E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
AC-228	9.88E+10	1.04E+11	1.09E+11	1.08E+11								
TH-227	1.55E+07	3.98E+07	5.91E+07	1.13E+08	3.38E+08	1.12E+09	3.31E+09	1.03E+10	2.56E+10	4.88E+10	5.58E+10	5.59E+10
TH-228	1.52E+11	1.57E+11	1.61E+11	1.08E+11								
TH-229	3.44E+04	1.12E+05	1.92E+05	4.99E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
TH-230	1.39E+08	2.67E+08	3.61E+08	6.13E+08	1.71E+09	5.77E+09	1.72E+10	5.54E+10	1.49E+11	3.41E+11	4.02E+11	2.02E+11
TH-231	4.91E+10	5.23E+10	5.44E+10	5.40E+10	5.40E+10	5.41E+10	5.42E+10	5.47E+10	5.56E+10	5.65E+10	5.67E+10	5.66E+10
TH-232	9.71E+10	1.03E+11	1.08E+11									
TH-234	1.46E+11	1.55E+11	1.62E+11									
PA-231	3.75E+07	6.96E+07	9.21E+07	1.50E+08	3.79E+08	1.17E+09	3.39E+09	1.05E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PA-233	1.24E+11	1.38E+11	1.48E+11	1.60E+11	2.02E+11	2.76E+11	3.10E+11	3.10E+11	3.08E+11	3.01E+11	2.82E+11	2.25E+11
PA-234	7.11E+08	7.26E+08	7.36E+08	2.59E+08								
PA-234M	1.46E+11	1.55E+11	1.62E+11									
U-233	1.91E+07	3.62E+07	4.87E+07	8.24E+07	2.42E+08	9.91E+08	3.60E+09	1.29E+10	3.77E+10	1.08E+11	2.14E+11	2.39E+11
U-234	4.38E+11	4.94E+11	5.29B+11	5.64E+11	6.22E+11	6.36E+11	6.34E+11	6.24E+11	5.99E+11	5.20E+11	3.65E+11	1.90E+11
U-235	4.87E+10	5.19E+10	5.40E+10	5.40E+10	5.40E+10	5.41E+10	5.42E+10	5.47E+10	5.56E+10	5.65E+10	5.67E+10	5.66E+10
U-236	4.60E+10	4.91E+10	5.12E+10	5.14E+10	5.21E+10	5.45E+10	6.04E+10	7.35E+10	8.39E+10	8.51E+10	8.46E+10	8.29E+10
U-237	1.13E+11	4.63E+10	3.35E+10	3.14E+09	2.07E+05	0.	0.	0.	0.	0.	0.	0.
U-238	1.46E+11	1.55E+11	1.62E+11									
NP-237	1.24E+11	1.38E+11	1.48E+11	1.60E+11	2.02E+11	2.76E+11	3.10E+11	3.10E+11	3.08E+11	3.01E+11	2.82E+11	2.25E+11
PU-238	3.82E+14	3.31E+14	3.03E+14	2.04E+14	4.20E+13	1.67E+11	2.29E+04	0.	0.	0.	0.	0.
PU-239	7.08E+13	7.54E+13	7.84E+13	7.83E+13	7.79E+13	7.63E+13	7.20E+13	5.89E+13	3.32E+13	4.43E+12	1.41E+10	2.57E+01
PU-240	1.11E+14	1.18E+14	1.22E+14	1.22E+14	1.19E+14	1.11E+14	8.96E+13	4.26E+13	5.11E+12	3.06E+09	1.88E+00	0.
PU-241	4.67E+15	1.94E+15	1.42E+15	1.28E+14	8.42E+09	1.96E-05	0.	0.	0.	0.	0.	0.
PU-242	3.79E+11	4.04E+11	4.21E+11	4.21E+11	4.21E+11	4.20E+11	4.19E+11	4.13E+11	3.98E+11	3.50E+11	2.42E+11	6.67E+10
AM-241	6.21E+14	7.32E+14	7.60E+14	7.42E+14	5.42E+14	1.76E+14	7.13E+12	9.50E+07	1.07E-06	0.	0.	0.
Summe	5.88E+15	3.22E+15	2.71E+15	1.29E+15	7.97E+14	3.80E+14	1.85E+14	1.18E+14	5.54E+13	2.19E+13	1.43E+13	7.66E+12

W S 1004

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie kerntechnische Industrie (I)

ND-144														
BI-210	l Mio a	. 1	300'000a	100'000a	30'000 a	10'000 a	3'000 a	1'000 a	300 a	100 a	50 a	30 a	1.1.2030	Nuklid
BI-210														
BI-211 1.56E+07 4.02E+07 5.97E+07 1.14E+08 3.42E+08 1.14E+09 3.34E+09 1.04E+10 2.59E+10 4.94E+10 5.64E+10 5.65E BI-212 4.98E+10 5.17E+10 5.32E+10 3.87E+10 3	.70E-03	1.	1.70E-03	1.69E-03	1.63E-03	1.53E-03	ND-144							
BI-212 4.98E+10 5.17E+10 5.32E+10 3.87E+10 3.87E	.63E+05	2.	5.23E+05	4.38E+05	1.80E+05	5.59E+04	9.72E+03	1.33E+03	1.19E+02	1.35E+01	4.21E+00	2.13E+00	4.50E-01	BI-210
BI-213 7.16E+02 2.33E+03 4.00E+03 1.04E+04 7.24E+04 8.73E+05 9.05E+06 9.32E+07 5.31E+08 2.06E+09 4.41E+09 5.01E BI-214 2.38E+02 7.82E+02 1.34E+03 3.50E+03 2.35E+04 2.29E+05 1.60E+06 9.06E+06 2.92E+07 7.08E+07 8.45E+07 4.25E PO-210 3.33E+05 1.60E+06 3.18E+06 1.03E+07 9.12E+07 1.02E+09 7.48E+09 4.30E+10 1.39E+11 3.37E+11 4.03E+11 2.02E PO-211 4.32E+04 1.11E+05 1.65E+05 3.15E+05 9.46E+05 3.14E+06 9.25E+06 2.88E+07 7.17E+07 1.37E+08 1.56E+08 1.56E PO-212 8.69E+10 9.03E+10 9.30E+10 6.90E+10 6.90E+1	.65E+10	5.	5.64E+10	4.94E+10	2.59E+10	1.04E+10	3.34E+09	1.14E+09	3.42E+08	1.14E+08	5.97E+07	4.02E+07	1.56E+07	BI-211
BT-214 2.38E+02 7.82E+02 1.34E+03 3.50E+03 2.35E+04 2.29E+05 1.60E+06 9.06E+06 2.92E+07 7.08E+07 8.45E+07 4.25E PO-210 3.33E+05 1.60E+06 3.18E+06 1.03E+07 9.12E+07 1.02E+09 7.48E+09 4.30E+10 1.39E+11 3.37E+11 4.03E+11 2.02E PO-211 4.32E+04 1.11E+05 1.65E+05 3.15E+05 9.46E+05 3.14E+06 9.25E+06 2.88E+07 7.17E+07 1.37E+08 1.56E+08 1.56E PO-212 8.69E+10 9.03E+10 9.30E+10 6.90E+10 6.	.87E+10	3.	3.87E+10	5.32E+10	5.17E+10	4.98E+10	BI-212							
PO-210 3.33E+05 1.60E+06 3.18E+06 1.03E+07 9.12E+07 1.02E+09 7.48E+09 4.30E+10 1.39E+11 3.37E+11 4.03E+11 2.02E PO-211 4.32E+04 1.11E+05 1.65E+05 3.15E+05 9.46E+05 3.14E+06 9.25E+06 2.88E+07 7.17E+07 1.37E+08 1.56E+08 1.56E PO-212 8.69E+10 9.03E+10 9.30E+10 6.90E+10 6.90E+	.01E+09	5.	4.41E+09	2.06E+09	5.31E+08	9.32E+07	9.05E+06	8.73E+05	7.24E+04	1.04E+04	4.00E+03	2.33E+03	7.16E+02	BI-213
PO-211 4.32E+04 1.11E+05 1.65E+05 3.15E+05 9.46E+05 3.14E+06 9.25E+06 2.88E+07 7.17E+07 1.37E+08 1.56E+08 1.56E PO-212 8.69E+10 9.03E+10 9.30E+10 6.90E+10 6	.25E+07	4.	8.45E+07	7.08E+07	2.92E+07	9.06E+06	1.60E+06	2.29E+05	2.35E+04	3.50E+03	1.34E+03	7.82E+02	2.38E+02	BI-214
PO-212 8.69E+10 9.03E+10 9.30E+10 6.90E+10 3.35E+10 1.09E+10 1.09E+11 1.09E	.02E+11	. 2.	4.03E+11	3.37E+11	1.39E+11	4.30E+10	7.48E+09	1.02E+09	9.12E+07	1.03E+07	3.18E+06	1.60E+06	3.33E+05	PO-210
PO-213 3.35E+04 1.09E+05 1.87E+05 4.87E+05 3.39E+06 4.09E+07 4.24E+08 4.36E+09 2.49E+10 9.66E+10 2.07E+11 2.35E PO-214 1.13E+06 3.72E+06 6.40E+06 1.67E+07 1.12E+08 1.09E+09 7.61E+09 4.31E+10 1.39E+11 3.37E+11 4.02E+11 2.02E PO-215 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E PO-216 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.	.56E+08	1.	1.56E+08	1.37E+08	7.17E+07	2.88E+07	9.25E+06	3.14E+06	9.46E+05	3.15E+05	1.65E+05	1.11E+05	4.32E+04	PO-211
PO-214 1.13E+06 3.72E+06 6.40E+06 1.67E+07 1.12E+08 1.09E+09 7.61E+09 4.31E+10 1.39E+11 3.37E+11 4.02E+11 2.02E PO-215 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E PO-216 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.08E+	.90E+10	6.	6.90E+10	9.30E+10	9.03E+10	8.69E+10	PO-212							
PO-215 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E PO-216 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1	.35E+11	. 2.	2.07E+11	9.66E+10	2.49E+10	4.36E+09	4.24E+08	4.09E+07	3.39E+06	4.87E+05	1.87E+05	1.09E+05	3.35E+04	PO-213
PO-216 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.08E	.02E+11	. 2.	4.02E+11	3.37E+11	1.39E+11	4.31E+10	7.61E+09	1.09E+09	1.12E+08	1.67E+07	6.40E+06	3.72E+06	1.13E+06	PO-214
PO-218	.67E+10	5.	5.66E+10	4.95E+10	2.60E+10	1.04E+10	3.35E+09	1.14E+09	3.43E+08	1.14E+08	5.99E+07	4.03E+07	1.57E+07	PO-215
AT-215 3.60E+01 9.28E+01 1.38E+02 2.63E+02 7.89E+02 2.62E+03 7.71E+03 2.40E+04 5.98E+04 1.14E+05 1.30E+05 1.30E AT-217 3.42E+04 1.12E+05 1.91E+05 4.98E+05 3.47E+06 4.18E+07 4.33E+08 4.46E+09 2.54E+10 9.86E+10 2.11E+11 2.39E AT-218 2.26E+02 7.44E+02 1.28E+03 3.33E+03 2.24E+04 2.17E+05 1.52E+06 8.62E+06 2.77E+07 6.74E+07 8.04E+07 4.04E AT-219 1.26E+01 3.25E+01 4.82E+01 9.18E+01 2.75E+02 9.15E+02 2.69E+03 8.39E+03 2.09E+04 3.98E+04 4.54E+04 4.55E RN-217 4.11E+00 1.34E+01 2.30E+01 5.97E+01 4.16E+02 5.01E+03 5.20E+04 5.35E+05 3.05E+06 1.18E+07 2.53E+07 2.87E RN-218 2.27E-01 7.45E-01 1.28E+00 3.34E+00 2.24E+01 2.18E+02 1.52E+03 8.63E+03 2.78E+04 6.74E+04 8.05E+04 4.04E RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.08	.08E+11	. 1.	1.08E+11	1.45E+11	1.41E+11	1.36E+11	PO-216							
AT-217 3.42E+04 1.12E+05 1.91E+05 4.98E+05 3.47E+06 4.18E+07 4.33E+08 4.46E+09 2.54E+10 9.86E+10 2.11E+11 2.39E AT-218 2.26E+02 7.44E+02 1.28E+03 3.33E+03 2.24E+04 2.17E+05 1.52E+06 8.62E+06 2.77E+07 6.74E+07 8.04E+07 4.04E AT-219 1.26E+01 3.25E+01 4.82E+01 9.18E+01 2.75E+02 9.15E+02 2.69E+03 8.39E+03 2.09E+04 3.98E+04 4.54E+04 4.55E RN-217 4.11E+00 1.34E+01 2.30E+01 5.97E+01 4.16E+02 5.01E+03 5.20E+04 5.35E+05 3.05E+06 1.18E+07 2.53E+07 2.87E RN-218 2.27E-01 7.45E-01 1.28E+00 3.34E+00 2.24E+01 2.18E+02 1.52E+03 8.63E+03 2.78E+04 6.74E+04 8.05E+04 4.04E RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 2.02E	.02E+11	. 2.	4.02E+11	3.37E+11	1.39E+11	4.31E+10	7.61E+09	1.09E+09	1.12E+08	1.67E+07	6.40E+06	3.72E+06	1.13E+06	PO-218
AT-218 2.26E+02 7.44E+02 1.28E+03 3.33E+03 2.24E+04 2.17E+05 1.52E+06 8.62E+06 2.77E+07 6.74E+07 8.04E+07 4.04E AT-219 1.26E+01 3.25E+01 4.82E+01 9.18E+01 2.75E+02 9.15E+02 2.69E+03 8.39E+03 2.09E+04 3.98E+04 4.54E+04 4.55E RN-217 4.11E+00 1.34E+01 2.30E+01 5.97E+01 4.16E+02 5.01E+03 5.20E+04 5.35E+05 3.05E+06 1.18E+07 2.53E+07 2.87E RN-218 2.27E-01 7.45E-01 1.28E+00 3.34E+00 2.24E+01 2.18E+02 1.52E+03 8.63E+03 2.78E+04 6.74E+04 8.05E+04 4.04E RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.0	.30E+05	, 1.	1.30E+05	1.14E+05	5.98E+04	2.40E+04	7.71E+03	2.62E+03	7.89E+02	2.63E+02	1.38E+02	9.28E+01	3.60E+01	AT-215
AT-219 1.26E+01 3.25E+01 4.82E+01 9.18E+01 2.75E+02 9.15E+02 2.69E+03 8.39E+03 2.09E+04 3.98E+04 4.54E+04 4.55E RN-217 4.11E+00 1.34E+01 2.30E+01 5.97E+01 4.16E+02 5.01E+03 5.20E+04 5.35E+05 3.05E+06 1.18E+07 2.53E+07 2.87E RN-218 2.27E-01 7.45E-01 1.28E+00 3.34E+00 2.24E+01 2.18E+02 1.52E+03 8.63E+03 2.78E+04 6.74E+04 8.05E+04 4.04E RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.08E+11 1.08E+11 1.08E+11 1.08E+11 1.08E+11 1.08E+11 1.08E+11 1.08E+11 2.02E	.39E+11	. 2.	2.11E+11	9.86E+10	2.54E+10	4.46E+09	4.33E+08	4.18E+07	3.47E+06	4.98E+05	1.91E+05	1.12E+05	3.42E+04	AT-217
RN-217 4.11E+00 1.34E+01 2.30E+01 5.97E+01 4.16E+02 5.01E+03 5.20E+04 5.35E+05 3.05E+06 1.18E+07 2.53E+07 2.87E RN-218 2.27E-01 7.45E-01 1.28E+00 3.34E+00 2.24E+01 2.18E+02 1.52E+03 8.63E+03 2.78E+04 6.74E+04 8.05E+04 4.04E RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 2.02E	.04E+07	4.	8.04E+07	6.74E+07	2.77E+07	8.62E+06	1.52E+06	2.17E+05	2.24E+04	3.33E+03	1.28E+03	7.44E+02	2.26E+02	AT-218
RN-218 2.27E-01 7.45E-01 1.28E+00 3.34E+00 2.24E+01 2.18E+02 1.52E+03 8.63E+03 2.78E+04 6.74E+04 8.05E+04 4.04E RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 2.02E RN-222 1.13E+06 3.72E+06 6.40E+06 1.67E+07 1.12E+08 1.09E+09 7.61E+09 4.31E+10 1.39E+11 3.37E+11 4.03E+11 2.02E	.55E+04	4.	4.54E+04	3.98E+04	2.09E+04	8.39E+03	2.69E+03	9.15E+02	2.75E+02	9.18E+01	4.82E+01	3.25E+01	1.26E+01	AT-219
RN-219 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.08E RN-222 1.13E+06 3.72E+06 6.40E+06 1.67E+07 1.12E+08 1.09E+09 7.61E+09 4.31E+10 1.39E+11 3.37E+11 4.03E+11 2.02E	.87E+07	2.	2.53E+07	1.18E+07	3.05E+06	5.35E+05	5.20E+04	5.01E+03	4.16E+02	5.97E+01	2.30E+01	1.34E+01	4.11E+00	RN-217
RN-220 1.36E+11 1.41E+11 1.45E+11 1.08E+11 1.08E	.04E+04	4.	8.05E+04	6.74E+04	2.78E+04	8.63E+03	1.52E+03	2.18E+02	2.24E+01	3.34E+00	1.28E+00	7.45E-01	2.27E-01	RN-218
RN-222 1.13E+06 3.72E+06 6.40E+06 1.67E+07 1.12E+08 1.09E+09 7.61E+09 4.31E+10 1.39E+11 3.37E+11 4.03E+11 2.02E	.67E+10) 5.	5.66E+10	4.95E+10	2.60E+10	1.04E+10	3.35E+09	1.14E+09	3.43E+08	1.14E+08	5.99E+07	4.03E+07	1.57E+07	RN-219
	.08E+11	. 1.	1.08E+11	1.45E+11	1.41E+11	1.36E+11	RN-220							
FR-221 3.43E+04 1.12E+05 1.91E+05 4.98E+05 3.47E+06 4.18E+07 4.33E+08 4.46E+09 2.54E+10 9.86E+10 2.11E+11 2.40E	.02E+11	. 2.	4.03E+11	3.37E+11	1.39E+11	4.31E+10	7.61E+09	1.09E+09	1.12E+08	1.67E+07	6.40E+06	3.72E+06	1.13E+06	RN-222
	.40E+11	. 2.	2.11E+11	9.86E+10	2.54E+10	4.46E+09	4.33E+08	4.18E+07	3.47E+06	4.98E+05	1.91E+05	1.12E+05	3.43E+04	FR-221
FR-223 1.30E+01 3.35E+01 4.97E+01 9.46E+01 2.84E+02 9.43E+02 2.78E+03 8.65E+03 2.15E+04 4.10E+04 4.69E+04 4.69E	.69E+04	4.	4.69E+04	4.10E+04	2.15E+04	8.65E+03	2.78E+03	9.43E+02	2.84E+02	9.46E+01	4.97E+01	3.35E+01	1.30E+01	FR-223
RA-223 1.57E+07 4.03E+07 5.99E+07 1.14E+08 3.43E+08 1.14E+09 3.35E+09 1.04E+10 2.60E+10 4.95E+10 5.66E+10 5.67E	.67E+10) 5.	5.66E+10	4.95E+10	2.60E+10	1.04E+10	3.35E+09	1.14E+09	3.43E+08	1.14E+08	5.99E+07	4.03E+07	1.57E+07	RA-223
RA-224 1.36E+11 1.41E+11 1.45E+11 1.08E+11	.08E+11	1.	1.08E+11	1.45E+11	1.41E+11	1.36E+11	RA-224							
RA-226 1.13E+06 3.73E+06 6.40E+06 1.67E+07 1.12E+08 1.09E+09 7.61E+09 4.31E+10 1.39E+11 3.37E+11 4.03E+11 2.02E	.02E+11	2.	4.03E+11	3.37E+11	1.39E+11	4.31E+10	7.61E+09	1.09E+09	1.12E+08	1.67E+07	6.40E+06	3.73E+06	1.13E+06	RA-226
AC-225 3.43E+04 1.12E+05 1.91E+05 4.98E+05 3.47E+06 4.18E+07 4.33E+08 4.46E+09 2.54E+10 9.86E+10 2.11E+11 2.40E	.40E+11	2.	2.11E+11	9.86E+10	2.54E+10	4.46E+09	4.33E+08	4.18E+07	3.47E+06	4.98E+05	1.91E+05	1.12E+05	3.43E+04	AC-225
AC-227 2.17E+05 5.58E+05 8.28E+05 1.58E+06 4.73E+06 1.57E+07 4.63E+07 1.44E+08 3.59E+08 6.83E+08 7.81E+08 7.82E	.82E+08	3 7.	7.81E+08	6.83E+08	3.59E+08	1.44E+08	4.63E+07	1.57E+07	4.73E+06	1.58E+06	8.28E+05	5.58E+05	2.17E+05	AC-227
TH-227 1.55E+07 3.98E+07 5.91E+07 1.13E+08 3.38E+08 1.12E+09 3.31E+09 1.03E+10 2.56E+10 4.88E+10 5.58E+10 5.59E	.59E+10) 5.	5.58E+10	4.88E+10	2.56E+10	1.03E+10	3.31E+09	1.12E+09	3.38E+08	1.13E+08	5.91E+07	3.98E+07	1.55E+07	TH-227

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TH-228	1.52E+11	1.57E+11	1.61E+11	1.08E+11								
TH-229	3.44E+04	1.12E+05	1.92E+05	4.99E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
TH-230	1.39E+08	2.67E+08	3.61E+08	6.13E+08	1.71E+09	5.77E+09	1.72E+10	5.54E+10	1.49E+11	3.41E+11	4.02E+11	2.02E+11
TH-232	9.71E+10	1.03E+11	1.08E+11									
PA-231	3.75E+07	6.96E+07	9.21E+07	1.50E+08	3.79E+08	1.17E+09	3.39E+09	1.05E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
U-233	1.91E+07	3.62E+07	4.87E+07	8.24E+07	2.42E+08	9.91E+08	3.60E+09	1.29E+10	3.77E+10	1.08E+11	2.14E+11	2.39E+11
U-234	4.38E+11	4.94E+11	5.29E+11	5.64E+11	6.22E+11	6.36E+11	6.34E+11	6.24E+11	5.99E+11	5.20E+11	3.65E+11	1.90E+11
U-235	4.87E+10	5.19E+10	5.40E+10	5.40E+10	5.40E+10	5.41E+10	5.42E+10	5.47E+10	5.56E+10	5.65E+10	5.67E+10	5.66E+10
U-236	4.60E+10	4.91E+10	5.12E+10	5.14E+10	5.21E+10	5.45E+10	6.04E+10	7.35E+10	8.39E+10	8.51E+10	8.46E+10	8.29E+10
U-238	1.46E+11	1.55E+11	1.62E+11									
NP-237	1.24E+11	1.38E+11	1.48E+11	1.60E+11	2.02E+11	2.76E+11	3.10E+11	3.10E+11	3.08E+11	3.01E+11	2.82E+11	2.25E+11
PU-238	3.82E+14	3.31E+14	3.03E+14	2.04E+14	4.20E+13	1.67E+11	2.29E+04	0.	0.	0.	0.	0.
PU-239	7.08E+13	7.54E+13	7.84E+13	7.83E+13	7.79E+13	7.63E+13	7.20E+13	5.89E+13	3.32E+13	4.43E+12	1.41E+10	2.57E+01
PU-240	1.11E+14	1.18E+14	1.22E+14	1.22E+14	1.19E+14	1.11E+14	8.96E+13	4.26E+13	5.11E+12	3.06E+09	1.88E+00	0.
PU-241	1.14E+11	4.75E+10	3.47E+10	3.13E+09	2.06E+05	4.80E-10	0.	0.	0.	0.	0.	0.
PU-242	3.79E+11	4.04E+11	4.21E+11	4.21E+11	4.21E+11	4.20E+11	4.19E+11	4.13E+11	3.98E+11	3.50E+11	2.42E+11	6.67E+10
AM-241	6.21E+14	7.32E+14	7.60E+14	7.42E+14	5.42E+14	1.76E+14	7.13E+12	9.50E+07	1.07E-06	0.	0.	0.
Summe	1.19E+15	1.26E+15	1.27E+15	1.15E+15	7.83E+14	3.66E+14	1.71E+14	1.04E+14	4.17E+13	9.48E+12	5.88E+12	4.42E+12

W S 1004

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie kerntechnische Industrie (I)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CO-60	2.37E+11	1.54E+11	1.52E+11	2.12E+08	8.02E-04	0.	0.	0.	0.	0.	0.	0.
SR-90	4.24E+12	2.54E+12	1.92E+12	5.84E+11	5.00E+09	2.90E+02	0.	0.	0.	0.	0.	0.
Y-90	4.24E+12	2.54E+12	1.92E+12	5.84E+11	5.00E+09	2.90E+02	0.	0.	0.	0.	0.	0.
TC-99	1.19E+13	1.26E+13	1.32E+13	1.32E+13	1.31E+13	1.31E+13	1.30E+13	1.27E+13	1.19E+13	9.50E+12	4.96E+12	5.08E+11
RU-106	1.36E+10	1.36E+10	1.36E+10	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.36E+10	1.36E+10	1.36E+10	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	4.56E+07	4.57E+07	4.57E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	9.24E+09	9.24E+09	9.24E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.97E+06	2.10E+06	2.18E+06	2.17E+06	2.15E+06	2.09E+06						
CS-134	1.96E+10	1.96E+10	1.96E+10	9.83E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	3.49E+07	3.72E+07	3.87E+07	3.87E+07	3.87E+07	3.87E+07	3.87E+07	3.86E+07	3.84E+07	3.76E+07	3.54E+07	2.87E+07
CS-137	2.92E+12	1.77E+12	1.35E+12	4.25E+11	4.19E+09	3.96E+02	0.	0.	0.	0.	0.	0.
BA-137M	2.76E+12	1.67E+12	1.27E+12	4.01E+11	3.95E+09	3.74E+02	0.	0.	0.	0.	0.	0.
CE-144	1.54E+10	1.54E+10	1.54E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	1.54E+10	1.54E+10	1.54E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	1.84E+08	1.84E+08	1.84E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	4.50E-01	2.13E+00	4.21E+00	1.35E+01	1.19E+02	1.33E+03	9.72E+03	5.59B+04	1.80E+05	4.38E+05	5.23E+05	2.63E+05
TL-207	1.56E+07	4.02E+07	5.97E+07	1.14E+08	3.42E+08	1.14E+09	3.34E+09	1.04E+10	2.59E+10	4.94E+10	5.64E+10	5.65E+10
TL-208	5.00E+10	5.19E+10	5.34E+10	3.87E+10								
TL-209	7.16E+02	2.33E+03	4.00E+03	1.04E+04	7.24E+04	8.73E+05	9.05E+06	9.32E+07	5.31E+08	2.06E+09	4.41E+09	5.01E+09
TL-210	2.38E+02	7.82E+02	1.34E+03	3.50E+03	2.35E+04	2.29E+05	1.60E+06	9.06E+06	2.92E+07	7.08E+07	8.45E+07	4.25E+07
PB-209	3.42E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
PB-210	3.47E+05	1.64E+06	3.24E+06	1.04E+07	9.16E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
PB-211	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
PB-212	1.39E+11	1.44E+11	1.48E+11	1.08E+11								
PB-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.02E+11	2.02E+11
BI-210	3.46E+05	1.63E+06	3.24E+06	1.04E+07	9.15E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
BI-211	4.32E+04	1.11E+05	1.65E+05	3.15E+05	9.46E+05	3.14E+06	9.25E+06	2.88E+07	7.17E+07	1.37E+08	1.56E+08	1.56E+08
BI-212	8.88E+10	9.21E+10	9.48E+10	6.90E+10								
BI-213	3.35E+04	1.09E+05	1.87E+05	4.87E+05	3.39E+06	4.09E+07	4.24E+08	4.36E+09	2.49E+10	9.66E+10	2.07E+11	2.34E+11
BI-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.02E+11	2.02E+11

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BI-215	1.26E+01	3.25E+01	4.82E+01	9.18E+01	2.75E+02	9.15E+02	2.69E+03	8.39E+03	2.09E+04	3.98E+04	4.54E+04	4.55E+04
PO-215	3.60E+01	9.28E+01	1.38E+02	2.63E+02	7.89E+02	2.62E+03	7.71E+03	2.40E+04	5.98E+04	1.14E+05	1.30E+05	1.30E+05
PO-218	2.27E+02	7.45E+02	1.28E+03	3.34E+03	2.24E+04	2.18E+05	1.52E+06	8.63E+06	2.78E+07	6.74E+07	8.05E+07	4.04E+07
AT-217	4.11E+00	1.34E+01	2.30E+01	5.97E+01	4.16E+02	5.01E+03	5.20E+04	5.35E+05	3.05E+06	1.18E+07	2.53B+07	2.87E+07
AT-218	2.27E-01	7.45E-01	1.28E+00	3.34E+00	2.24E+01	2.18E+02	1.52E+03	8.63E+03	2.78E+04	6.74E+04	8.05E+04	4.04E+04
AT-219	3.91E-01	1.00E+00	1.49E+00	2.84E+00	8.52E+00	2.83E+01	8.33E+01	2.59E+02	6.45E+02	1.23E+03	1.41E+03	1.41E+03
FR-223	2.17E+05	5.58E+05	8.28E+05	1.58E+06	4.73E+06	1.57E+07	4.63E+07	1.44E+08	3.59E+08	6.83E+08	7.81E+08	7.82E+08
RA-225	3.43E+04	1.12E+05	1.92E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
RA-228	9.88E+10	1.04E+11	1.09E+11	1.08E+11								
AC-227	1.55E+07	3.99E+07	5.92E+07	1.13E+08	3.38E+08	1.12E+09	3.31E+09	1.03E+10	2.56E+10	4.88E+10	5.58E+10	5.59E+10
AC-228	9.88E+10	1.04E+11	1.09E+11	1.08E+11								
TH-231	4.91E+10	5.23E+10	5.44E+10	5.40E+10	5.40E+10	5.41E+10	5.42E+10	5.47E+10	5.56E+10	5.65E+10	5.67E+10	5.66E+10
TH-234	1.46E+11	1.55E+11	1.62E+11									
PA-233	1.24E+11	1.38E+11	1.48E+11	1.60E+11	2.02E+11	2.76E+11	3.10E+11	3.10E+11	3.08E+11	3.01E+11	2.82E+11	2.25E+11
PA-234	7.11E+08	7.26E+08	7.36E+08	2.59E+08								
PA-234M	1.46E+11	1.55E+11	1.62E+11									
U-237	1.13E+11	4.63E+10	3.35E+10	3.14E+09	2.07E+05	0.	0.	0.	0.	0.	0.	0.
PU-241	4.67E+15	1.94E+15	1.42E+15	1.28E+14	8.42E+09	1.96E-05	0.	0.	0.	0.	0.	0.
Summe	4.70E+15	1.96E+15	1.44E+15	1.44E+14	1.42E+13	1.42E+13	1.42E+13	1.41E+13	1.38E+13	1.24E+13	8.46E+12	3.24E+12

W S 1004

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie kerntechnische Industrie (I)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	4.50E-01	2.13E+00	4.21E+00	1.35E+01	1.19E+02	1.33E+03	9.72E+03	5.59E+04	1.80E+05	4.38E+05	5.23E+05	2.63E+05
TL-207	1.56E+07	4.02E+07	5.97E+07	1.14E+08	3.42E+08	1.14E+09	3.34E+09	1.04E+10	2.59E+10	4.94E+10	5.64E+10	5.65E+10
TL-208	5.00E+10	5.19E+10	5.34E+10	3.87E+10								
TL-209	7.16E+02	2.33E+03	4.00E+03	1.04E+04	7.24E+04	8.73E+05	9.05E+06	9.32E+07	5.31E+08	2.06E+09	4.41E+09	5.01E+09
TL-210	2.38E+02	7.82E+02	1.34E+03	3.50E+03	2.35E+04	2.29E+05	1.60E+06	9.06E+06	2.92E+07	7.08E+07	8.45E+07	4.25E+07
PB-209	3.42E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
PB-210	3.47E+05	1.64E+06	3.24E+06	1.04E+07	9.16E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
PB-211	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
PB-212	1.39E+11	1.44E+11	1.48E+11	1.08E+11								
PB-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.02E+11	2.02E+11
BI-210	3.46E+05	1.63E+06	3.24E+06	1.04E+07	9.15E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
BI-211	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
BI-212	1.39E+11	1.44E+11	1.48E+11	1.08E+11								
BI-213	3.42E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.39E+11
BI-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
BI-215	1.26E+01	3.25E+01	4.82E+01	9.18E+01	2.75E+02	9.15E+02	2.69E+03	8.39E+03	2.09E+04	3.98E+04	4.54E+04	4.55E+04
PO-210	3.33E+05	1.60E+06	3.18E+06	1.03E+07	9.12E+07	1.02E+09	7.48E+09	4.30E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
PO-211	4.32E+04	1.11E+05	1.65E+05	3.15E+05	9.46E+05	3.14E+06	9.25E+06	2.88E+07	7.17E+07	1.37E+08	1.56E+08	1.56E+08
PO-212	8.69E+10	9.03E+10	9.30E+10	6.90E+10								
PO-213	3.35E+04	1.09E+05	1.87E+05	4.87E+05	3.39E+06	4.09E+07	4.24E+08	4.36E+09	2.49E+10	9.66E+10	2.07E+11	2.35E+11
PO-214	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.02E+11	2.02E+11
PO-215	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
PO-216	1.36E+11	1.41E+11	1.45E+11	1.08E+11								
PO-218	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
AT-215	3.60E+01	9.28E+01	1.38E+02	2.63E+02	7.89E+02	2.62E+03	7.71E+03	2.40E+04	5.98E+04	1.14E+05	1.30E+05	1.30E+05
AT-217	3.43E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
AT-218	2.27E+02	7.45E+02	1.28E+03	3.34E+03	2.24E+04	2.18E+05	1.52E+06	8.63E+06	2.78E+07	6.74E+07	8.05E+07	4.04E+07
AT-219	1.30E+01	3.35E+01	4.97E+01	9.46E+01	2.84E+02	9.43E+02	2.78E+03	8.65E+03	2.15E+04	4.10E+04	4.69E+04	4.69E+04
RN-217	4.11E+00	1.34E+01	2.30E+01	5.97E+01	4.16E+02	5.01E+03	5.20E+04	5.35E+05	3.05E+06	1.18E+07	2.53E+07	2.87E+07
RN-218	2.27E-01	7.45E-01	1.28E+00	3.34E+00	2.24E+01	2.18E+02	1.52E+03	8.63E+03	2.78E+04	6.74E+04	8.05E+04	4.04E+04
RN-219	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-220	1.36E+11	1.41E+11	1.45E+11	1.08E+11								
RN-222	1.13E+06	3.72E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
FR-221	3.43E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
FR-223	2.17E+05	5.58E+05	8.28E+05	1.58E+06	4.73E+06	1.57E+07	4.63E+07	1.44E+08	3.59E+08	6.83E+08	7.81E+08	7.82E+08
RA-223	1.57E+07	4.03E+07	5.99E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
RA-224	1.36E+11	1.41E+11	1.45E+11	1.08E+11								
RA-225	3.43E+04	1.12E+05	1.92E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
RA-226	1.13E+06	3.73E+06	6.40E+06	1.67E+07	1.12E+08	1.09E+09	7.61E+09	4.31E+10	1.39E+11	3.37E+11	4.03E+11	2.02E+11
RA-228	9.88E+10	1.04E+11	1.09E+11	1.08E+11								
AC-225	3.43E+04	1.12E+05	1.91E+05	4.98E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
AC-227	1.57E+07	4.04E+07	6.00E+07	1.14E+08	3.43E+08	1.14E+09	3.35E+09	1.04E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
AC-228	9.88E+10	1.04E+11	1.09E+11	1.08E+11								
TH-227	1.55E+07	3.98E+07	5.91E+07	1.13E+08	3.38E+08	1.12E+09	3.31E+09	1.03E+10	2.56E+10	4.88E+10	5.58E+10	5.59E+10
TH-228	1.52E+11	1.57E+11	1.61E+11	1.08E+11								
TH-229	3.44E+04	1.12E+05	1.92E+05	4.99E+05	3.47E+06	4.18E+07	4.33E+08	4.46E+09	2.54E+10	9.86E+10	2.11E+11	2.40E+11
TH-230	1.39E+08	2.67E+08	3.61E+08	6.13E+08	1.71E+09	5.77E+09	1.72E+10	5.54E+10	1.49E+11	3.41E+11	4.02E+11	2.02E+11
TH-231	4.91E+10	5.23E+10	5.44E+10	5.40E+10	5.40E+10	5.41E+10	5.42E+10	5.47E+10	5.56E+10	5.65E+10	5.67E+10	5.66E+10
TH-232	9.71E+10	1.03E+11	1.08E+11									
TH-234	1.46E+11	1.55E+11	1.62E+11									
PA-231	3.75E+07	6.96E+07	9.21E+07	1.50E+08	3.79E+08	1.17E+09	3.39E+09	1.05E+10	2.60E+10	4.95E+10	5.66E+10	5.67E+10
PA-233	1.24E+11	1.38E+11	1.48E+11	1.60E+11	2.02E+11	2.76E+11	3.10E+11	3.10E+11	3.08E+11	3.01E+11	2.82E+11	2.25E+11
PA-234	7.11E+08	7.26E+08	7.36E+08	2.59E+08								
PA-234M	1.46E+11	1.55E+11	1.62E+11									
U-233	1.91E+07	3.62E+07	4.87E+07	8.24E+07	2.42E+08	9.91E+08	3.60E+09	1.29E+10	3.77E+10	1.08E+11	2.14E+11	2.39E+11
U-234	4.38E+11	4.94E+11	5.29E+11	5.64E+11	6.22E+11	6.36E+11	6.34E+11	6.24E+11	5.99E+11	5.20E+11	3.65E+11	1.90E+11
U-235	4.87E+10	5.19E+10	5.40E+10	5.40E+10	5.40E+10	5.41E+10	5.42E+10	5.47E+10	5.56E+10	5.65E+10	5.67E+10	5.66E+10
U-236	4.60E+10	4.91E+10	5.12E+10	5.14E+10	5.21E+10	5.45E+10	6.04E+10	7.35E+10	8.39E+10	8.51E+10	8.46E+10	8.29E+10
U-237	1.13E+11	4.63E+10	3.35E+10	3.14E+09	2.07E+05	0.	0.	0.	0.	0.	0.	0.
U-238	1.46E+11	1.55E+11	1.62E+11									
NP-237	1.24E+11	1.38E+11	1.48E+11	1.60E+11	2.02E+11	2.76E+11	3.10E+11	3.10E+11	3.08E+11	3.01E+11	2.82E+11	2.25E+11
PU-238	3.82E+14	3.31E+14	3.03E+14	2.04E+14	4.20E+13	1.67E+11	2.29E+04	0.	0.	0.	0.	0.
PU-239	7.08E+13	7.54E+13	7.84E+13	7.83E+13	7.79E+13	7.63E+13	7.20E+13	5.89E+13	3.32E+13	4.43E+12	1.41E+10	2.57E+01
PU-240	1.11E+14	1.18E+14	1.22E+14	1.22E+14	1.19E+14	1.11E+14	8.96E+13	4.26E+13	5.11E+12	3.06E+09	1.88E+00	0.
PU-241	4.67E+15	1.94E+15	1.42E+15	1.28E+14	8.42E+09	1.96E-05	0.	0.	0.	0.	0.	0.
PU-242	3.79E+11	4.04E+11	4.21E+11	4.21E+11	4.21E+11	4.20E+11	4.19E+11	4.13E+11	3.98E+11	3.50E+11	2.42E+11	6.67E+10
AM-241	6.21E+14	7.32E+14	7.60E+14	7.42E+14	5.42E+14	1.76E+14	7.13E+12	9.50E+07	1.07E-06	0.	0.	0.
Summe	5.86E+15	3.20E+15	2.69E+15	1.28E+15	7.84E+14	3.67E+14	1.72E+14	1.06E+14	4.35E+13	1.24E+13	9.38E+12	7.15E+12

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie kerntechnische Industrie (I)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CO-60	2.37E+11	1.54E+11	1.52E+11	2.12E+08	8.02E-04	0.	0.	0.	0.	0.	0.	0.
SR-90	4.24E+12	2.54E+12	1.92E+12	5.84E+11	5.00E+09	2.90E+02	0.	0.	0.	0.	0.	0.
Y-90	4.24E+12	2.54E+12	1.92E+12	5.84E+11	5.00E+09	2.90E+02	0.	0.	0.	0.	0.	0.
TC-99	1.19E+13	1.26E+13	1.32E+13	1.32E+13	1.31E+13	1.31E+13	1.30E+13	1.27E+13	1.19E+13	9.50E+12	4.96E+12	5.08E+11
RU-106	1.36E+10	1.36E+10	1.36E+10	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.36E+10	1.36E+10	1.36E+10	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	4.56E+07	4.57E+07	4.57E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	9.24E+09	9.24E+09	9.24E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.97E+06	2.10E+06	2.18E+06	2.18B+06	2.18E+06	2.18E+06	2.18E+06	2.18E+06	2.18E+06	2.17E+06	2.15E+06	2.09E+06
CS-134	1.96E+10	1.96E+10	1.96E+10	9.83E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	3.49E+07	3.72E+07	3.87E+07	3.87E+07	3.87E+07	3.87E+07	3.87E+07	3.86E+07	3.84E+07	3.76E+07	3.54E+07	2.87E+07
CS-137	2.92E+12	1.77E+12	1.35E+12	4.25E+11	4.19E+09	3.96E+02	0.	0.	0.	0.	0.	0.
BA-137M	2.76E+12	1.67E+12	1.27E+12	4.01E+11	3.95E+09	3.74E+02	0.	0.	0.	0.	0.	0.
CE-144	1.54E+10	1.54E+10	1.54E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	1.54E+10	1.54E+10	1.54E+10	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	1.84E+08	1.84E+08	1.84E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	1.53E-03	1.63E-03	1.69E-03	1.70E-03								
									_			
Summe	2.63E+13	2.14E+13	1.99E+13	1.51E+13	1.32E+13	1.31E+13	1.30E+13	1.27E+13	1.19E+13	9.50E+12	4.96E+12	5.08E+11

C.6

C.6.1

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie Kernkraftwerke (K)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.38E+14	6.28E+13	2.04E+13	1.23E+12	1.65E+07	0.	0.	0.	0.	0.	0.	0.
C-14	2.08E+12	2.07E+12	2.07E+12	2.06E+12	2.01E+12	1.84E+12	1.45E+12	6.21E+11	5.52E+10	1.16E+07	3.61E-04	0.
NA-22	2.80E+06	9.47E+02	4.60E+00	7.55E-06	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.35E+10	1.33E+10	1.27E+10	1.08E+10	6.83E+09	1.36E+09
MN-54	8.10E+07	2.25E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.85E+13	8.38E+09	4.94E+07	1.31E+02	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	9.61E+14	1.86E+13	1.34E+12	1.87E+09	7.07E-03	0.	0.	0.	0.	0.	0.	0.
NI-59	3.83E+13	3.83E+13	3.83E+13	3.83E+13	3.82E+13	3.80E+13	3.73E+13	3.49E+13	2.90E+13	1.52E+13	2.40E+12	3.71E+09
NI-63	4.55E+15	3.67E+15	3.17E+15	2.21E+15	5.22E+14	3.33E+12	1.78E+06	0.	0.	0.	0.	0.
ZN-65	3.06E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	5.80E+13	2.84E+13	1.76E+13	5.37E+12	4.59E+10	2.67E+03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
Y-90	5.80E+13	2.84E+13	1.77E+13	5.37E+12	4.60E+10	2.67E+03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
ZR-93	5.42E+08	5.42E+08	5.42E+08	5.42E+08	5.42E+08	5.42E+08	5.41E+08	5.40E+08	5.35E+08	5.18E+08	4.73E+08	3.45E+08
NB-93M	3.85E+10	1.10E+10	4.93E+09	1.03E+09	5.15E+08	5.15E+08	5.14E+08	5.13E+08	5.08E+08	4.92E+08	4.50E+08	3.27E+08
NB-94	1.40E+08	1.40E+08	1.40E+08	1.40E+08	1.39E+08	1.36E+08	1.27E+08	9.98E+07	5.04E+07	4.62E+06	5.00E+03	2.08E-07
TC-99	1.59E+11	1.59E+11	1.59E+11	1.59E+11	1.58E+11	1.58E+11	1.57E+11	1.54E+11	1.44E+11	1.15E+11	5.98E+10	6.13E+09
RU-106	1.44E+07	1.58E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.44E+07	1.58E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	2.57E+06	2.55E+06	2.49E+06	2.31E+06								
AG-110	1.38E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	1.02E+07	6.42E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.32E+09	1.30E+09	1.24E+09	1.08E+09	6.64E+08	1.66E+08	1.30E+06
SB-125	1.11E+11	6.11E+07	4.10E+05	1.51E+00	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	1.86E+08	1.86E+08	1.86E+08	1.86E+08	1.86E+08	1.85E+08	1.82E+08	1.73E+08	1.51E+08	9.30E+07	2.32E+07	1.82E+05
SB-126M	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.32E+09	1.30E+09	1.24E+09	1.08E+09	6.64E+08	1.66E+08	1.30E+06
TE-125M	2.71E+10	1.49E+07	9.99E+04	3.68E-01	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.34E+08	7.33E+08	7.31E+08	7.25E+08	7.03E+08							
CS-134	2.15E+11	8.99E+06	1.08E+04	5.42E-04	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.70B+09	9.70E+09	9.69E+09	9.67E+09	9.61E+09	9.41E+09	8.86E+09	7.18E+09
CS-137	1.12E+15	5.58E+14	3.51E+14	1.11E+14	1.09E+12	1.03E+05	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
BA-137M	1.05E+15	5.27E+14	3.32E+14	1.05E+14	1.03E+12	9.73E+04	7.34E-03	7.34E-03	7.33E-03	7.33E-03	7.32E-03	7.28E-03

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-144	3.10E+07	7.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.10E+07	7.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.72E+05	9.28E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	6.52E-03											
PM-147	1.58E+10	5.71E+06	2.89E+04	5.30E-02	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	2.27E+02											
EU-152	1.97E+08	4.22E+07	1.51E+07	1.16E+06	4.03E+01	0.	0.	0.	0.	0.	0.	0.
EU-154	1.57E+11	1.39E+10	2.77E+09	4.90E+07	4.80E+00	0.	0.	0.	0.	0.	0.	0.
EU-155	1.32E+10	1.67E+08	9.08E+06	6.25E+03	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	3.00E-05	3.54E-05	3.64E-05	3.69E-05								
TL-206	2.20E-06	1.45E-05	3.42E-05	1.48E-04	2.13E-03	3.31E-02	2.69E-01	1.60E+00	5.17E+00	1.24E+01	1.41E+01	5.30E+00
TL-207	4.59E+01	1.10E+02	1.57E+02	2.84E+02	8.09E+02	2.68E+03	8.28E+03	3.02E+04	1.02E+05	2.91E+05	3.81E+05	3.83E+05
TL-208	2.31E+04	1.71E+04	1.40E+04	8.45E+03	1.13E+03	1.04E+00	1.56E-01	6.60E-01	2.54E+00	9.69E+00	3.01E+01	1.01E+02
TL-209	3.80E-02	9.96E-02	1.57E-01	3.66E-01	2.29E+00	2.81E+01	3.07E+02	3.24E+03	1.86E+04	7.25E+04	1.55E+05	1.76E+05
TL-210	1.30E-03	6.08E-03	1.23E-02	4.20E-02	4.36E-01	5.71E+00	4.42E+01	2.59E+02	8.37E+02	2.01E+03	2.28E+03	8.57E+02
PB-209	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
PB-210	1.69E+00	1.12E+01	2.63E+01	1.14E+02	1.64E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PB-211	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PB-212	6.43E+04	4.76E+04	3.89E+04	2.35B+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PB-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-210	1.69E+00	1.12E+01	2.63E+01	1.14E+02	1.64E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-211	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
BI-212	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
BI-213	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.91E+05	3.47E+06	7.42E+06	8.43E+06
BI-214	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-215	3.72E-05	8.85E-05	1.27E-04	2.29E-04	6.52E-04	2.16E-03	6.67E-03	2.44E-02	8.21E-02	2.34E-01	3.07E-01	3.08E-01
PO-210	1.62E+00	1.09E+01	2.58E+01	1.12E+02	1.63E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PO-211	1.27E-01	3.03E-01	4.36E-01	7.87E-01	2.24E+00	7.42E+00	2.29E+01	8.37E+01	2.82E+02	8.05E+02	1.06E+03	1.06E+03
PO-212	4.12E+04	3.05E+04	2.49E+04	1.51E+04	2.01E+03	1.85E+00	2.78E-01	1.18E+00	4.53E+00	1.73E+01	5.36E+01	1.79E+02
PO-213	1.78E+00	4.66E+00	7.37E+00	1.71E+01	1.07E+02	1.32E+03	1.44E+04	1.52E+05	8.73E+05	3.40E+06	7.27E+06	8.25E+06
PO-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PO-215	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PO-216	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PO-218	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
AT-215	1.06E-04	2.53E-04	3.63E-04	6.56E-04	1.87E-03	6.18E-03	1.91E-02	6.97E-02	2.35E-01	6.71E-01	8.79E-01	8.83E-01
AT-217	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
AT-218	1.24E-03	5.79E-03	1.17E-02	4.00E-02	4.15E-01	5.44E+00	4.21E+01	2.47E+02	7.97E+02	1.91E+03	2.17E+03	8.16E+02

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AT-219	3.83E-05	9.12E-05	1.31E-04	2.36E-04	6.72E-04	2.23E-03	6.88E-03	2.51E-02	8.47E-02	2.42E-01	3.17E-01	3.18E-01
RN-217	2.18E-04	5.72E-04	9.04E-04	2.10E-03	1.31E-02	1.61E-01	1.76E+00	1.86E+01	1.07E+02	4.16E+02	8.91E+02	1.01E+03
RN-218	1.24E-06	5.79E-06	1.17E-05	4.00E-05	4.15B-04	5.44E-03	4.21E-02	2.47E-01	7.97E-01	1.91E+00	2.17E+00	8.16E-01
RN-219	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
RN-220	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
RN-222	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
FR-221	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
FR-223	6.39E-01	1.52E+00	2.18E+00	3.94E+00	1.12E+01	3.71E+01	1.15E+02	4.18E+02	1.41E+03	4.03E+03	5.28E+03	5.30E+03
RA-223	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
RA-224	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
RA-225	1.82E+00	4.77E+00	7.54E+00	1.75E+01	1.10E+02	1.35E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
RA-226	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
RA-228	4.02E-03	7.61E-03	1.00E-02	1.61E-02	4.08E-02	1.32E-01	4.35E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
AC-225	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
AC-227	4.63E+01	1.10E+02	1.58E+02	2.86E+02	8.12E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
AC-228	4.02E-03	7.61E-03	1.00E-02	1.61E-02	4.08E-02	1.32E-01	4.35E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-227	4.55E+01	1.08E+02	1.56E+02	2.81E+02	8.00E+02	2.65E+03	8.19E+03	2.99E+04	1.01E+05	2.88E+05	3.77E+05	3.79E+05
TH-228	6.43E+04	4.75E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-229	1.83E+00	4.78E+00	7.54E+00	1.75E+01	1.10E+02	1.35E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
TH-230	9.64E+02	2.70E+03	4.26E+03	9.24E+03	3.73E+04	1.54E+05	4.85E+05	1.58E+06	4.27E+06	9.68E+06	1.08E+07	4.07E+06
TH-231	1.23E+05	1.23E+05	1.23E+05	1.24E+05	1.25E+05	1.30E+05	1.44E+05	1.88E+05	2.73B+05	3.69E+05	3.84E+05	3.84E+05
TH-232	5.00E-03	8.61E-03	1.10E-02	1.71E-02	4.18E-02	1.34E-01	4.36E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-234	2.74E+06											
PA-231	1.05E+02	1.83E+02	2.36E+02	3.67E+02	8.95E+02	2.77E+03	8.39E+03	3.04E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PA-233	3.62E+06	3.94E+06	4.16E+06	4.68E+06	6.40E+06	9.47E+06	1.09E+07	1.09E+07	1.08E+07	1.06E+07	9.94E+06	7.92E+06
PA-234	4.39E+03											
PA-234M	2.74E+06											
U-232	6.25E+04	4.62E+04	3.78E+04	2.29E+04	3.06E+03	2.67E+00	0.	0.	0.	0.	0.	0.
U-233	8.01E+02	1.30E+03	1.65E+03	2.62E+03	7.50E+03	3.26E+04	1.24E+05	4.49E+05	1.32E+06	3.80E+06	7.54E+06	8.41E+06
U-234	4.82E+06	7.68E+06	9.25E+06	1.22E+07	1.71E+07	1.84E+07	1.83E+07	1.80E+07	1.71E+07	1.46E+07	9.44E+06	3.66E+06
U-235	1.23E+05	1.23E+05	1.23E+05	1.24E+05	1.25E+05	1.30E+05	1.44E+05	1.88E+05	2.73E+05	3.69E+05	3.84E+05	3.84E+05
U-236	2.42E+06	2.43E+06	2.44E+06	2.46E+06	2.53E+06	2.76E+06	3.33E+06	4.61E+06	5.62E+06	5.75E+06	5.72E+06	5.60E+06
U-237	3.14E+06	7.41E+05	2.83E+05	2.55E+04	1.68E+00	0.	0.	0.	0.	0.	0.	0.
U-238	2.74E+06											
U-240	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
NP-237	3.62E+06	3.94E+06	4.16E+06	4.68E+06	6.40E+06	9.47E+06	1.09E+07	1.09E+07	1.08E+07	1.06E+07	9.94E+06	7.92E+06
NP-238	1.68E+05	1.45E+05	1.31E+05	1.03E+05	3.84E+04	1.23E+03	6.61E-02	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
NP-239	2.41E+08	2.40E+08	2.40E+08	2.39E+08	2.34E+08	2.19E+08	1.82E+08	9.41E+07	1.43E+07	1.98E+04	1.34E-04	0.
NP-240	7.06E-03	7.05E-03	7.04E-03	7.00E-03								
NP-240M	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
PU-238	3.78E+10	2.99E+10	2.55E+10	1.72E+10	3.55E+09	1.46E+07	3.36E+01	0.	0.	0.	0.	0.
PU-239	7.55E+09	7.55E+09	7.54E+09	7.53E+09	7.49E+09	7.35E+09	6.95E+09	5.70E+09	3.23E+09	4.32E+08	1.38E+06	2.50E-03
PU-240	1.19E+10	1.19E+10	1.19E+10	1.18E+10	1.16E+10	1.08E+10	8.71E+09	4.15E+09	4.97E+08	2.97E+05	6.40E+00	6.36E+00
PU-241	1.28E+11	3.02E+10	1.15E+10	1.04E+09	6.85E+04	0.	0.	0.	0.	0.	0.	0.
PU-242	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.25E+07	2.22E+07	2.14E+07	1.88E+07	1.30E+07	3.59E+06
PU-244	6.42E+00	6.41E+00	6.37E+00									
AM-241	3.20E+10	3.37E+10	3.32E+10	3.10E+10	2.25E+10	7.33E+09	2.97E+08	3.95E+03	0.	0.	0.	0.
AM-242	3.64E+07	3.14E+07	2.85E+07	2.23E+07	8.33E+06	2.67E+05	1.43E+01	0.	0.	0.	0.	0.
AM-242M	3.66E+07	3.15E+07	2.86E+07	2.24E+07	8.37E+06	2.68E+05	1.44E+01	0.	0.	0.	0.	0.
AM-243	2.41E+08	2.40E+08	2.40E+08	2.39E+08	2.34E+08	2.19E+08	1.82E+08	9.41E+07	1.43E+07	1.98E+04	1.34E-04	0.
CM-242	3.02E+07	2.60E+07	2.36E+07	1.85E+07	6.91E+06	2.21E+05	1.19E+01	0.	0.	0.	0.	0.
CM-243	8.48E+07	4.09E+07	2.51E+07	7.45E+06	5.75E+04	2.32E-03	0.	0.	0.	0.	0.	0.
CM-244	1.45E+10	4.59E+09	2.14E+09	3.15E+08	1.49E+05	3.45E-07	0.	0.	0.	0.	0.	0.
C11 2 1 1												_
Summe	8.20E+15	4.93E+15	3.96E+15	2.48E+15	5.65E+14	4.34E+13	3.89E+13	3.57E+13	2.93E+13	1.53E+13	2.47E+12	1.99E+10

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie Kernkraftwerke (K)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	6.52B-03	6.52E-03	6.52B-03	6.52E-03								
SM-147	2.27E+02											
GD-152	3.00E-05	3.54E-05	3.64E-05	3.69E-05								
BI-210	2.20E-06	1.45E-05	3.42E-05	1.48E-04	2.13E-03	3.31E-02	2.69E-01	1.60E+00	5.17E+00	1.24E+01	1.41E+01	5.30E+00
BI-211	4.59E+01	1.10E+02	1.57E+02	2.84E+02	8.09E+02	2.68E+03	8.28E+03	3.02E+04	1.02E+05	2.91E+05	3.81E+05	3.83E+05
BI-212	2.31E+04	1.71E+04	1.40E+04	8.45E+03	1.13E+03	1.04E+00	1.56E-01	6.60E-01	2.54E+00	9.69E+00	3.01E+01	1.01E+02
BI-213	3.80E-02	9.96E-02	1.57E-01	3.66E-01	2.29E+00	2.81E+01	3.07E+02	3.24E+03	1.86E+04	7.25E+04	1.55E+05	1.76E+05
BI-214	1.30E-03	6.08E-03	1.23E-02	4.20E-02	4.36E-01	5.71E+00	4.42E+01	2.59E+02	8.37E+02	2.01E+03	2.28E+03	8.57E+02
PO-210	1.62E+00	1.09E+01	2.58E+01	1.12E+02	1.63E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PO-211	1.27E-01	3.03E-01	4.36E-01	7.87E-01	2.24E+00	7.42E+00	2.29E+01	8.37E+01	2.82E+02	8.05E+02	1.06E+03	1.06E+03
PO-212	4.12E+04	3.05E+04	2.49E+04	1.51E+04	2.01E+03	1.85E+00	2.78E-01	1.18E+00	4.53E+00	1.73E+01	5.36E+01	1.79E+02
PO-213	1.78E+00	4.66E+00	7.37E+00	1.71E+01	1.07E+02	1.32E+03	1.44E+04	1.52E+05	8.73E+05	3.40E+06	7.27E+06	8.25E+06
PO-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PO-215	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PO-216	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PO-218	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
AT-215	1.06E-04	2.53E-04	3.63E-04	6.56E-04	1.87E-03	6.18E-03	1.91E-02	6.97E-02	2.35E-01	6.71E-01	8.79E-01	8.83E-01
AT-217	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.91E+05	3.47E+06	7.42E+06	8.43E+06
AT-218	1.24E-03	5.79E-03	1.17E-02	3.99E-02	4.14E-01	5.43E+00	4.21E+01	2.46E+02	7.96E+02	1.91E+03	2.17E+03	8.15E+02
AT-219	3.72E-05	8.85E-05	1.27E-04	2.29E-04	6.52E-04	2.16E-03	6.67E-03	2.44E-02	8.21E-02	2.34E-01	3.07E-01	3.08E-01
RN-217	2.18E-04	5.72E-04	9.04E-04	2.10E-03	1.31E-02	1.61E-01	1.76E+00	1.86E+01	1.07E+02	4.16E+02	8.91E+02	1.01E+03
RN-218	1.24E-06	5.79E-06	1.17E-05	4.00E-05	4.15E-04	5.44E-03	4.21E-02	2.47E-01	7.97E-01	1.91E+00	2.17E+00	8.16E-01
RN-219	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92B+05	3.82E+05	3.84E+05
RN-220	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
RN-222	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
FR-221	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
FR-223	3.83E-05	9.12E-05	1.31E-04	2.36E-04	6.72E-04	2.23E-03	6.88E-03	2.51E-02	8.47E-02	2.42E-01	3.17E-01	3.18E-01
RA-223	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
RA-224	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
RA-226	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
AC-225	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AC-227	6.39E-01	1.52E+00	2.18E+00	3.94E+00	1.12E+01	3.71E+01	1.15E+02	4.18E+02	1.41E+03	4.03E+03	5.28E+03	5.30E+03
TH-227	4.55E+01	1.08E+02	1.56E+02	2.81E+02	8.00E+02	2.65E+03	8.19E+03	2.99E+04	1.01E+05	2.88E+05	3.77E+05	3.79E+05
TH-228	6.43E+04	4.75E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-229	1.83E+00	4.78E+00	7.54E+00	1.75E+01	1.10E+02	1.35E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
TH-230	9.64E+02	2.70E+03	4.26E+03	9.24E+03	3.73E+04	1.54E+05	4.85E+05	1.58E+06	4.27E+06	9.68E+06	1.08E+07	4.07E+06
TH-232	5.00E-03	8.61E-03	1.10E-02	1.71E-02	4.18E-02	1.34E-01	4.36E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PA-231	1.05E+02	1.83E+02	2.36E+02	3.67E+02	8.95E+02	2.77E+03	8.39E+03	3.04E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
U-232	6.25E+04	4.62E+04	3.78E+04	2.29E+04	3.06E+03	2.67E+00	0.	0.	0.	0.	0.	0.
U-233	8.01E+02	1.30E+03	1.65E+03	2.62E+03	7.50E+03	3.26E+04	1.24E+05	4.49E+05	1.32E+06	3.80E+06	7.54E+06	8.41E+06
U-234	4.82E+06	7.68E+06	9.25E+06	1.22E+07	1.71E+07	1.84E+07	1.83E+07	1.80E+07	1.71E+07	1.46E+07	9.44E+06	3.66E+06
U-235	1.23E+05	1.23E+05	1.23E+05	1.24E+05	1.25E+05	1.30E+05	1.44E+05	1.88E+05	2.73E+05	3.69E+05	3.84E+05	3.84E+05
U-236	2.42E+06	2.43E+06	2.44E+06	2.46E+06	2.53E+06	2.76E+06	3.33E+06	4.61E+06	5.62E+06	5.75E+06	5.72E+06	5.60E+06
U-238	2.74E+06											
NP-237	3.62E+06	3.94E+06	4.16E+06	4.68E+06	6.40E+06	9.47E+06	1.09E+07	1.09E+07	1.08E+07	1.06E+07	9.94E+06	7.92E+06
PU-238	3.78E+10	2.99E+10	2.55E+10	1.72E+10	3.55E+09	1.46E+07	3.36E+01	0.	0.	0.	0.	0.
PU-239	7.55E+09	7.55E+09	7.54E+09	7.53E+09	7.49E+09	7.35E+09	6.95E+09	5.70E+09	3.23E+09	4.32E+08	1.38E+06	2.50E-03
PU-240	1.19E+10	1.19E+10	1.19E+10	1.18E+10	1.16E+10	1.08E+10	8.71E+09	4.15E+09	4.97E+08	2.97E+05	6.40E+00	6.36E+00
PU-241	3.13E+06	7.40E+05	2.82E+05	2.54E+04	1.68E+00	0.	0.	0.	0.	0.	0.	0.
PU-242	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.25E+07	2.22E+07	2.14E+07	1.88E+07	1.30E+07	3.59E+06
PU-244	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
AM-241	3.20E+10	3.37E+10	3.32E+10	3.10E+10	2.25E+10	7.33E+09	2.97E+08	3.95E+03	0.	0.	0.	0.
AM-242M	1.68E+05	1.45E+05	1.31E+05	1.03E+05	3.84E+04	1.23E+03	6.61E-02	0.	0.	0.	0.	0.
AM-243	2.41E+08	2.40E+08	2.40E+08	2.39E+08	2.34E+08	2.19E+08	1.82E+08	9.41E+07	1.43E+07	1.98E+04	1.34E-04	0.
CM-242	3.02E+07	2.60E+07	2.36E+07	1.85E+07	6.91E+06	2.21E+05	1.19E+01	0.	0.	0.	0.	0.
CM-243	8.45E+07	4.07E+07	2.51E+07	7.43E+06	5.73E+04	2.31E-03	0.	0.	0.	0.	0.	0.
CM-244	1.45E+10	4.59E+09	2.14E+09	3.15E+08	1.49E+05	3.45E-07	0.	0.	0.	0.	0.	0.
Summe	1.04E+11	8.80E+10	8.07E+10	6.82E+10	4.55E+10	2.57E+10	1.62E+10	1.00E+10	3.83E+09	5.66E+08	1.55E+08	1.01E+08

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie Kernkraftwerke (K)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.38E+14	6.28E+13	2.04E+13	1.23E+12	1.65E+07	0.	0.	0.	0.	0.	0.	0.
C-14	2.08E+12	2.07E+12	2.07E+12	2.06E+12	2.01E+12	1.84E+12	1.45E+12	6.21E+11	5.52E+10	1.16E+07	3.61E-04	0.
NA-22	2.80E+06	9.47E+02	4.60E+00	7.55E-06	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.35E+10	1.33E+10	1.27E+10	1.08E+10	6.83E+09	1.36E+09
MN-54	8.10E+07	2.25E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.85E+13	8.38E+09	4.94E+07	1.31E+02	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	9.61E+14	1.86E+13	1.34E+12	1.87E+09	7.07E-03	0.	0.	0.	0.	0.	0.	0.
NI-59	3.83E+13	3.83E+13	3.83E+13	3.83E+13	3.82E+13	3.80E+13	3.73E+13	3.49E+13	2.90E+13	1.52E+13	2.40E+12	3.71E+09
NI-63	4.55E+15	3.67E+15	3.17E+15	2.21E+15	5.22E+14	3.33E+12	1.78E+06	0.	0.	0.	0.	0.
ZN-65	3.06E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	5.80E+13	2.84E+13	1.76E+13	5.37E+12	4.59E+10	2.67E+03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
Y-90	5.80E+13	2.84E+13	1.77E+13	5.37E+12	4.60E+10	2.67E+03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
ZR-93	5.42E+08	5.42E+08	5.42E+08	5.42E+08	5.42E+08	5.42E+08	5.41E+08	5.40E+08	5.35E+08	5.18E+08	4.73E+08	3.45E+08
NB-93M	3.85E+10	1.10E+10	4.93E+09	1.03E+09	5.15E+08	5.15E+08	5.14E+08	5.13E+08	5.08E+08	4.92E+08	4.50E+08	3.27E+08
NB-94	1.40E+08	1.40E+08	1.40E+08	1.40E+08	1.39E+08	1.36E+08	1.27E+08	9.98E+07	5.04E+07	4.62E+06	5.00E+03	2.08E-07
TC-99	1.59E+11	1.59E+11	1.59E+11	1.59E+11	1.58E+11	1.58E+11	1.57E+11	1.54E+11	1.44E+11	1.15E+11	5.98E+10	6.13E+09
RU-106	1.44E+07	1.58E-02	0.	0.	0.	0.	0.	0.	0.	0.	0 -	0.
RH-106	1.44E+07	1.58E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	2.57E+06	2.55E+06	2.49E+06	2.31E+06								
AG-110	1.38E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	1.02E+07	6.42E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.32E+09	1.30E+09	1.24E+09	1.08E+09	6.64E+08	1.66E+08	1.30E+06
SB-125	1.11E+11	6.11E+07	4.10E+05	1.51E+00	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	1.86E+08	1.86E+08	1.86E+08	1.86E+08	1.86E+08	1.85E+08	1.82E+08	1.73E+08	1.51E+08	9.30E+07	2.32E+07	1.82E+05
SB-126M	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.32E+09	1.30E+09	1.24E+09	1.08E+09	6.64E+08	1.66E+08	1.30E+06
TE-125M	2.71E+10	1.49E+07	9.99E+04	3.68E-01	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.34E+08	7.33E+08	7.31E+08	7.25E+08	7.03E+08							
CS-134	2.15E+11	8.99E+06	1.08E+04	5.42E-04	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.69E+09	9.67E+09	9.61E+09	9.41E+09	8.86E+09	7.18E+09
CS-137	1.12E+15	5.58E+14	3.51E+14	1.11E+14	1.09E+12	1.03E+05	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
BA-137M	1.05E+15	5.27E+14	3.32E+14	1.05B+14	1.03E+12	9.73E+04	7.34E-03	7.34E-03	7.33E-03	7.33E-03	7.32E-03	7.28E-03

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-144	3.10E+07	7.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.10E+07	7.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.72E+05	9.28E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-147	1.58E+10	5.71E+06	2.89E+04	5.30E-02	0.	0.	0.	0.	0.	0.	0.	0.
EU-152	1.97E+08	4.22E+07	1.51E+07	1.16E+06	4.03E+01	0.	0.	0.	0.	0.	0.	0.
EU-154	1.57E+11	1.39E+10	2.77E+09	4.90E+07	4.80E+00	0.	0.	0.	0.	0.	0.	0.
EU-155	1.32E+10	1.67E+08	9.08E+06	6.25E+03	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	2.20E-06	1.45E-05	3.42E-05	1.48E-04	2.13E-03	3.31E-02	2.69E-01	1.60E+00	5.17E+00	1.24E+01	1.41E+01	5.30E+00
TL-207	4.59E+01	1.10E+02	1.57E+02	2.84E+02	8.09E+02	2.68E+03	8.28E+03	3.02E+04	1.02E+05	2.91E+05	3.81E+05	3.83E+05
TL-208	2.31E+04	1.71E+04	1.40E+04	8.45E+03	1.13E+03	1.04E+00	1.56E-01	6.60E-01	2.54E+00	9.69E+00	3.01E+01	1.01E+02
TL-209	3.80E-02	9.96E-02	1.57E-01	3.66E-01	2.29E+00	2.81E+01	3.07E+02	3.24E+03	1.86E+04	7.25E+04	1.55E+05	1.76E+05
TL-210	1.30E-03	6.08E-03	1.23E-02	4.20E-02	4.36E-01	5.71E+00	4.42E+01	2.59E+02	8.37E+02	2.01E+03	2.28E+03	8.57E+02
PB-209	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
PB-210	1.69E+00	1.12E+01	2.63E+01	1.14E+02	1.64E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PB-211	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PB-212	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PB-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-210	1.69E+00	1.12E+01	2.63E+01	1.14E+02	1.64E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-211	1.27E-01	3.03E-01	4.36E-01	7.87E-01	2.24E+00	7.42E+00	2.29E+01	8.37E+01	2.82E+02	8.05E+02	1.06E+03	1.06E+03
BI-212	4.12E+04	3.05E+04	2.49E+04	1.51E+04	2.01E+03	1.85E+00	2.78E-01	1.18E+00	4.53E+00	1.73E+01	5.36E+01	1.79E+02
BI-213	1.78E+00	4.66E+00	7.37E+00	1.71E+01	1.07E+02	1.32E+03	1.44E+04	1.52E+05	8.73E+05	3.40E+06	7.27E+06	8.25E+06
BI-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-215	3.72E-05	8.85E-05	1.27E-04	2.29E-04	6.52E-04	2.16E-03	6.67E-03	2.44E-02	8.21E-02	2.34E-01	3.07E-01	3.08E-01
PO-215	1.06E-04	2.53E-04	3.63E-04	6.56E-04	1.87E-03	6.18E-03	1.91E-02	6.97E-02	2.35E-01	6.71E-01	8.79E-01	8.83E-01
PO-218	1.24E-03	5.79E-03	1.17E-02	4.00E-02	4.15E-01	5.44E+00	4.21E+01	2.47E+02	7.97E+02	1.91E+03	2.17E+03	8.16E+02
AT-217	2.18E-04	5.72E-04	9.04E-04	2.10E-03	1.31E-02	1.61E-01	1.76E+00	1.86E+01	1.07E+02	4.16E+02	8.91E+02	1.01E+03
AT-218	1.24E-06	5.79E-06	1.17E-05	4.00E-05	4.15E-04	5.44E-03	4.21E-02	2.47E-01	7.97E-01	1.91E+00	2.17E+00	8.16E-01
AT-219	1.15E-06	2.74E-06	3.93E-06	7.09E-06	2.02E-05	6.68E-05	2.06E-04	7.53E-04	2.54B-03	7.25E-03	9.50E-03	9.53E-03
FR-223	6.38E-01	1.52E+00	2.18E+00	3.94E+00	1.12E+01	3.71E+01	1.15E+02	4.18E+02	1.41E+03	4.03E+03	5.28E+03	5.30E+03
RA-225	1.82E+00	4.77E+00	7.54E+00	1.75E+01	1.10E+02	1.35E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
RA-228	4.02E-03	7.61E-03	1.00E-02	1.61E-02	4.08E-02	1.32E-01	4.35E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
AC-227	4.56E+01	1.09E+02	1.56E+02	2.82E+02	8.00E+02	2.65E+03	8.19E+03	2.99E+04	1.01E+05	2.88E+05	3.77E+05	3.79E+05
AC-228	4.02E-03	7.61E-03	1.00E-02	1.61E-02	4.08E-02	1.32E-01	4.35E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-231	1.23E+05	1.23E+05	1.23E+05	1.24E+05	1.25E+05	1.30E+05	1.44E+05	1.88E+05	2.73E+05	3.69E+05	3.84E+05	3.84E+05
TH-234	2.74E+06											
PA-233	3.62E+06	3.94E+06	4.16E+06	4.68E+06	6.40E+06	9.47E+06	1.09E+07	1.09E+07	1.08E+07	1.06E+07	9.94E+06	7.92E+06
PA-234	4.39E+03											

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PA-234M	2.74E+06											
U-237	3.14E+06	7.41E+05	2.83E+05	2.55E+04	1.68E+00	0.	0.	0.	0.	0.	0.	0.
U-240	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
NP-238	1.68E+05	1.45E+05	1.31E+05	1.03E+05	3.84E+04	1.23E+03	6.61E-02	0.	0.	0.	0.	0.
NP-239	2.41E+08	2.40E+08	2.40E+08	2.39E+08	2.34E+08	2.19E+08	1.82E+08	9.41E+07	1.43E+07	1.98E+04	1.34E-04	0.
NP-240	7.06E-03	7.05E-03	7.04E-03	7.00E-03								
NP-240M	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
PU-241	1.28E+11	3.02E+10	1.15E+10	1.04E+09	6.85E+04	0.	0.	0.	0.	0.	0.	0.
PU-244	7.77E-03	7.75E-03	7.71E-03									
AM-242	3.64E+07	3.14E+07	2.85E+07	2.23E+07	8.33E+06	2.67E+05	1.43E+01	0.	0.	0.	0.	0.
AM-242M	3.64E+07	3.14E+07	2.85E+07	2.23E+07	8.33E+06	2.67E+05	1.43E+01	0.	0.	0.	0.	0.
CM-243	2.46E+05	1.19E+05	7.29E+04	2.16E+04	1.67E+02	6.73E-06	0.	0.	0.	0.	0.	0.
CIT-243												
Summe	8.20E+15	4.93E+15	3.95E+15	2.48E+15	5.65E+14	4.33E+13	3.89E+13	3.57E+13	2.93E+13	1.53E+13	2.47E+12	1.98E+10

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie Kernkraftwerke (K)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	2.20E-06	1.45E-05	3.42E-05	1.48E-04	2.13E-03	3.31E-02	2.69E-01	1.60E+00	5.17E+00	1.24E+01	1.41E+01	5.30E+00
TL-207	4.59E+01	1.10E+02	1.57E+02	2.84E+02	8.09E+02	2.68E+03	8.28E+03	3.02E+04	1.02E+05	2.91E+05	3.81E+05	3.83E+05
TL-208	2.31E+04	1.71E+04	1.40E+04	8.45E+03	1.13E+03	1.04E+00	1.56E-01	6.60E-01	2.54E+00	9.69E+00	3.01E+01	1.01E+02
TL-209	3.80E-02	9.96E-02	1.57E-01	3.66E-01	2.29E+00	2.81E+01	3.07E+02	3.24E+03	1.86E+04	7.25E+04	1.55E+05	1.76E+05
TL-210	1.30E-03	6.08E-03	1.23E-02	4.20E-02	4.36E-01	5.71E+00	4.42E+01	2.59E+02	8.37E+02	2.01E+03	2.28E+03	8.57E+02
PB-209	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
PB-210	1.69E+00	1.12E+01	2.63E+01	1.14E+02	1.64E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PB-211	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PB-212	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PB-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-210	1.69E+00	1.12E+01	2.63E+01	1.14E+02	1.64E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-211	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
BI-212	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
BI-213	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.91E+05	3.47E+06	7.42E+06	8.43E+06
BI-214	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
BI-215	3.72E-05	8.85E-05	1.27E-04	2.29E-04	6.52E-04	2.16E-03	6.67E-03	2.44E-02	8.21E-02	2.34E-01	3.07E-01	3.08E-01
PO-210	1.62E+00	1.09E+01	2.58E+01	1.12E+02	1.63E+03	2.54E+04	2.07E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PO-211	1.27E-01	3.03E-01	4.36E-01	7.87E-01	2.24E+00	7.42E+00	2.29E+01	8.37E+01	2.82E+02	8.05E+02	1.06E+03	1.06E+03
PO-212	4.12E+04	3.05E+04	2.49E+04	1.51E+04	2.01E+03	1.85E+00	2.78E-01	1.18E+00	4.53E+00	1.73E+01	5.36E+01	1.79E+02
PO-213	1.78E+00	4.66E+00	7.37E+00	1.71E+01	1.07E+02	1.32E+03	1.44E+04	1.52E+05	8.73E+05	3.40E+06	7.27E+06	8.25E+06
PO-214	6.20E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.10E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
PO-215	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PO-216	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
PO-218	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
AT-215	1.06E-04	2.53E-04	3.63E-04	6.56E-04	1.87E-03	6.18E-03	1.91E-02	6.97E-02	2.35E-01	6.71E-01	8.79E-01	8.83E-01
AT-217	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
AT-218	1.24E-03	5.79E-03	1.17E-02	4.00E-02	4.15E-01	5.44E+00	4.21E+01	2.47E+02	7.97E+02	1.91E+03	2.17E+03	8.16E+02
AT-219	3.83E-05	9.12E-05	1.31E-04	2.36E-04	6.72E-04	2.23E-03	6.88E-03	2.51E-02	8.47E-02	2.42E-01	3.17E-01	3.18E-01
RN-217	2.18E-04	5.72E-04	9.04E-04	2.10E-03	1.31E-02	1.61E-01	1.76E+00	1.86E+01	1.07E+02	4.16E+02	8.91E+02	1.01E+03
RN-218	1.24E-06	5.79E-06	1.17E-05	4.00E-05	4.15E-04	5.44E-03	4.21E-02	2.47E-01	7.97E-01	1.91E+00	2.17E+00	8.16E-01
RN-219	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-220	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
RN-222	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
FR-221	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
FR-223	6.39E-01	1.52E+00	2.18E+00	3.94E+00	1.12E+01	3.71E+01	1.15E+02	4.18E+02	1.41E+03	4.03E+03	5.28E+03	5.30E+03
RA-223	4.61E+01	1.10E+02	1.58E+02	2.85E+02	8.11E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
RA-224	6.43E+04	4.76E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
RA-225	1.82E+00	4.77E+00	7.54E+00	1.75E+01	1.10E+02	1.35E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
RA-226	6.21E+00	2.90E+01	5.86E+01	2.00E+02	2.07E+03	2.72E+04	2.11E+05	1.23E+06	3.98E+06	9.57E+06	1.08E+07	4.08E+06
RA-228	4.02E-03	7.61E-03	1.00E-02	1.61E-02	4.08E-02	1.32E-01	4.35E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
AC-225	1.82E+00	4.76E+00	7.53E+00	1.75E+01	1.10E+02	1.34E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
AC-227	4.63E+01	1.10E+02	1.58E+02	2.86E+02	8.12E+02	2.69E+03	8.30E+03	3.03E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
AC-228	4.02E-03	7.61E-03	1.00E-02	1.61E-02	4.08E-02	1.32E-01	4.35E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-227	4.55E+01	1.08E+02	1.56E+02	2.81E+02	8.00E+02	2.65E+03	8.19E+03	2.99E+04	1.01E+05	2.88E+05	3.77E+05	3.79E+05
TH-228	6.43E+04	4.75E+04	3.89E+04	2.35E+04	3.14E+03	2.88E+00	4.34E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-229	1.83E+00	4.78E+00	7.54E+00	1.75E+01	1.10E+02	1.35E+03	1.47E+04	1.55E+05	8.92E+05	3.47E+06	7.43E+06	8.43E+06
TH-230	9.64E+02	2.70E+03	4.26E+03	9.24E+03	3.73E+04	1.54E+05	4.85E+05	1.58E+06	4.27E+06	9.68E+06	1.08E+07	4.07E+06
TH-231	1.23E+05	1.23E+05	1.23E+05	1.24E+05	1.25E+05	1.30E+05	1.44E+05	1.88E+05	2.73E+05	3.69E+05	3.84E+05	3.84E+05
TH-232	5.00E-03	8.61E-03	1.10E-02	1.71E-02	4.18E-02	1.34E-01	4.36E-01	1.84E+00	7.07E+00	2.70E+01	8.37E+01	2.80E+02
TH-234	2.74E+06											
PA-231	1.05E+02	1.83E+02	2.36E+02	3.67E+02	8.95E+02	2.77E+03	8.39E+03	3.04E+04	1.02E+05	2.92E+05	3.82E+05	3.84E+05
PA-233	3.62E+06	3.94E+06	4.16E+06	4.68E+06	6.40E+06	9.47E+06	1.09E+07	1.09E+07	1.08E+07	1.06E+07	9.94E+06	7.92E+06
PA-234	4.39E+03											
PA-234M	2.74E+06											
U-232	6.25E+04	4.62E+04	3.78E+04	2.29E+04	3.06E+03	2.67E+00	0.	0.	0.	0.	0.	0.
U-232	8.01E+02	1.30E+03	1.65E+03	2.62E+03	7.50E+03	3.26E+04	1.24E+05	4.49E+05	1.32E+06	3.80E+06	7.54E+06	8.41E+06
U-234	4.82E+06	7.68E+06	9.25B+06	1.22E+07	1.71E+07	1.84E+07	1.83E+07	1.80E+07	1.71E+07	1.46E+07	9.44E+06	3.66E+06
U-235	1.23E+05	1.23E+05	1.23E+05	1.24E+05	1.25E+05	1.30E+05	1.44E+05	1.88E+05	2.73E+05	3.69E+05	3.84E+05	3.84E+05
U-236	2.42E+06	2.43E+06	2.44E+06	2.46E+06	2.53E+06	2.76E+06	3.33E+06	4.61E+06	5.62E+06	5.75E+06	5.72E+06	5.60E+06
U-237	3.14E+06	7.41E+05	2.83E+05	2.55E+04	1.68E+00	0.	0.	0.	0.	0.	0.	0.
U-238	2.74E+06											
U-240	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
NP-237	3.62B+06	3.94E+06	4.16E+06	4.68E+06	6.40E+06	9.47E+06	1.09E+07	1.09E+07	1.08E+07	1.06E+07	9.94E+06	7.92E+06
NP-238	1.68E+05	1.45E+05	1.31E+05	1.03E+05	3.84E+04	1.23E+03	6.61E-02	0.	0.	0.	0.	0.
NP-239	2.41E+08	2.40E+08	2.40E+08	2.39E+08	2.34E+08	2.19E+08	1.82E+08	9.41E+07	1.43E+07	1.98E+04	1.34E-04	0.
NP-240	7.06E-03	7.05E-03	7.04E-03	7.00E-03								
NP-240M	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.36E+00						
PU-238	3.78E+10	2.99E+10	2.55E+10	1.72E+10	3.55E+09	1.46E+07	3.36E+01	0.	0.	0.	0.	0.
20 250	3											

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-239	7.55E+09	7.55E+09	7.54E+09	7.53E+09	7.49E+09	7.35E+09	6.95E+09	5.70E+09	3.23E+09	4.32E+08	1.38E+06	2.50E-03
PU-240	1.19E+10	1.19E+10	1.19E+10	1.18E+10	1.16E+10	1.08E+10	8.71E+09	4.15E+09	4.97E+08	2.97E+05	6.40E+00	6.36E+00
PU-241	1.28E+11	3.02E+10	1.15E+10	1.04E+09	6.85E+04	0.	0.	0.	0.	0.	0.	0.
PU-242	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.25E+07	2.22E+07	2.14E+07	1.88E+07	1.30E+07	3.59E+06
PU-244	6.42E+00	6.41E+00	6.37E+00									
AM-241	3.20E+10	3.37E+10	3.32E+10	3.10E+10	2.25E+10	7.33E+09	2.97E+08	3.95E+03	0.	0.	0.	0.
AM-242	3.64E+07	3.14E+07	2.85E+07	2.23E+07	8.33E+06	2.67E+05	1.43E+01	0.	0.	0.	0.	0.
AM-242M	3.66E+07	3.15E+07	2.86E+07	2.24E+07	8.37E+06	2.68E+05	1.44E+01	0.	0.	0.	0.	0.
AM-243	2.41E+08	2.40E+08	2.40E+08	2.39E+08	2.34E+08	2.19E+08	1.82E+08	9.41E+07	1.43E+07	1.98E+04	1.34E-04	0.
CM-242	3.02E+07	2.60E+07	2.36E+07	1.85E+07	6.91E+06	2.21E+05	1.19E+01	0.	0.	0.	0.	0.
CM-243	8.48E+07	4.09E+07	2.51E+07	7.45E+06	5.75E+04	2.32E-03	0.	0.	0.	0.	0.	0.
CM-244	1.45E+10	4.59E+09	2.14E+09	3.15E+08	1.49E+05	3.45E-07	0.	0.	0.	0.	0.	0.
0.1 2 1 1												
Summe	2.33E+11	1.18E+11	9.25E+10	6.95E+10	4.57E+10	2.60E+10	1.64E+10	1.01E+10	3.88E+09	6.32E+08	2.37E+08	1.58E+08

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie Kernkraftwerke (K)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.38E+14	6.28E+13	2.04E+13	1.23E+12	1.65E+07	0.	0.	0.	0.	0.	0.	0.
C-14	2.08E+12	2.07E+12	2.07E+12	2.06E+12	2.01E+12	1.84E+12	1.45E+12	6.21E+11	5.52E+10	1.16E+07	3.61E-04	0.
NA-22	2.80E+06	9.47E+02	4.60E+00	7.55E-06	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.36E+10	1.35E+10	1.33E+10	1.27E+10	1.08E+10	6.83E+09	1.36E+09
MN-54	8.10E+07	2.25E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.85E+13	8.38E+09	4.94E+07	1.31E+02	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	9.61E+14	1.86E+13	1.34E+12	1.87E+09	7.07E-03	0.	0.	0.	0.	0.	0.	0.
NI-59	3.83E+13	3.83E+13	3.83E+13	3.83E+13	3.82E+13	3.80E+13	3.73E+13	3.49E+13	2.90E+13	1.52E+13	2.40E+12	3.71E+09
NI-63	4.55E+15	3.67E+15	3.17E+15	2.21E+15	5.22E+14	3.33E+12	1.78E+06	0.	0.	0.	0.	0.
ZN-65	3.06E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	5.80E+13	2.84E+13	1.76E+13	5.37E+12	4.59E+10	2.67E+03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
Y-90	5.80E+13	2.84E+13	1.77E+13	5.37E+12	4.60E+10	2.67E+03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
ZR-93	5.42E+08	5.42E+08	5.42E+08	5.42B+08	5.42E+08	5.42E+08	5.41E+08	5.40E+08	5.35E+08	5.18E+08	4.73E+08	3.45E+08
NB-93M	3.85E+10	1.10E+10	4.93E+09	1.03E+09	5.15E+08	5.15E+08	5.14E+08	5.13E+08	5.08E+08	4.92E+08	4.50E+08	3.27E+08
NB-94	1.40E+08	1.40E+08	1.40E+08	1.40E+08	1.39E+08	1.36E+08	1.27E+08	9.98E+07	5.04E+07	4.62E+06	5.00E+03	2.08E-07
TC-99	1.59E+11	1.59E+11	1.59E+11	1.59E+11	1.58E+11	1.58E+11	1.57E+11	1.54E+11	1.44E+11	1.15E+11	5.98E+10	6.13E+09
RU-106	1.44E+07	1.58E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.44E+07	1.58E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	2.57E+06	2.55E+06	2.49E+06	2.31E+06								
AG-110	1.38E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	1.02E+07	6.42E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.32E+09	1.30E+09	1.24E+09	1.08E+09	6.64E+08	1.66E+08	1.30E+06
SB-125	1.11E+11	6.11E+07	4.10E+05	1.51E+00	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	1.86E+08	1.86E+08	1.86E+08	1.86E+08	1.86E+08	1.85E+08	1.82E+08	1.73E+08	1.51E+08	9.30E+07	2.32E+07	1.82E+05
SB-126M	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.33E+09	1.32E+09	1.30E+09	1.24E+09	1.08E+09	6.64E+08	1.66E+08	1.30E+06
TE-125M	2.71E+10	1.49E+07	9.99E+04	3.68E-01	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.34E+08	7.33E+08	7.31E+08	7.25E+08	7.03E+08							
CS-134	2.15E+11	8.99E+06	1.08E+04	5.42E-04	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.70E+09	9.69E+09	9.67E+09	9.61E+09	9.41E+09	8.86E+09	7.18E+09
CS-137	1.12E+15	5.58E+14	3.51E+14	1.11E+14	1.09E+12	1.03E+05	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.75E-03	7.71E-03
BA-137M	1.05E+15	5.27E+14	3.32E+14	1.05E+14	1.03E+12	9.73E+04	7.34E-03	7.34E-03	7.33E-03	7.33E-03	7.32E-03	7.28E-03

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-144	3.10E+07	7.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.10E+07	7.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.72E+05	9.28E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	6.52E-03											
PM-147	1.58E+10	5.71E+06	2.89E+04	5.30E-02	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	2.27E+02											
EU-152	1.97E+08	4.22E+07	1.51E+07	1.16E+06	4.03E+01	0.	0.	0.	0.	0.	0.	0.
EU-154	1.57E+11	1.39E+10	2.77E+09	4.90E+07	4.80E+00	0.	0.	0.	0.	0.	0.	0.
EU-155	1.32E+10	1.67E+08	9.08E+06	6.25E+03	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	3.00E-05	3.54E-05	3.64E-05	3.69E-05								
										4 500.10	2 427.12	1.98E+10
Summe	8.20E+15	4.93E+15	3.95E+15	2.48E+15	5.65E+14	4.33E+13	3.89E+13	3.57E+13	2.93E+13	1.53E+13	2.47E+12	1.30E+10

C.7

C.7.1

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie Landessammelstellen (L)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	1.17E+12	5.96E+11	4.01E+11	2.42E+10	3.23E+05	0.	0.	0.	0.	0.	0.	0.
BE-10	8.04E+02	1.07E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.14E+03	1.10E+03	1.01E+03	7.48E+02
C-14	1.88E+13	2.49E+13	2.69E+13	2.68E+13	2.61E+13	2.40E+13	1.88E+13	8.08E+12	7.19E+11	1.51E+08	4.70E-03	0.
NA-22	4.89E+08	1.24E+08	1.22E+08	2.01E+02	0.	0.	0.	0.	0.	0.	0.	0.
AL-26	1.49E+03	1.97E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.11E+03	2.07E+03	1.94E+03	1.60E+03	8.11E+02
P-32	8.24E+08	2.06E+08	2.06E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
P-33	1.51E+06	3.77E+05	3.77E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.39E+09	1.35E+09	1.35E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.17E+10	1.56E+10	1.69E+10	1.69E+10	1.69E+10	1.68E+10	1.68E+10	1.65E+10	1.57E+10	1.34E+10	8.45E+09	1.69E+09
K-40	6.91E+08	9.16E+08	9.92E+08	9.91E+08	9.91E+08							
CA-41	1.87E+05	2.48E+05	2.68E+05	2.68E+05	2.68E+05	2.67E+05	2.63E+05	2.51E+05	2.19E+05	1.36E+05	3.49E+04	3.00E+02
CA-45	2.27E+07	5.68E+06	5.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	4.25E+07	1.06E+07	1.06E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48	6.42E+06	1.60E+06	1.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	1.20E+10	3.00E+09	3.00E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.75E+11	4.38E+10	4.38E+10	1.12E-07	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	2.70E+10	6.87E+09	6.75E+09	1.80E+04	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	7.62E+05	1.90E+05	1.90E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-56	1.02E+05	2.54E+04	2.54E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.30E+10	3.25E+09	3.25E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	8.65E+07	2.16E+07	2.16E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	8.48E+12	2.62E+12	2.19E+12	3.06E+09	1.16E-02	0.	0.	0.	0.	0.	0.	0.
NI-59	8.08E+08	1.07E+09	1.16E+09	1.16E+09	1.16E+09	1.15E+09	1.13E+09	1.06E+09	8.79E+08	4.60E+08	7.25E+07	1.12E+05
NI-63	2.76E+11	3.13E+11	3.03E+11	2.11E+11	4.99E+10	3.18E+08	1.70E+02	0.	0.	0.	0.	0.
ZN-65	1.71E+09	4.27E+08	4.27E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
GA-67	5.17E+02	1.29E+02	1.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-75	8.31E+07	2.08E+07	2.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	8.57E+04	1.14E+05	1.23E+05	1.23E+05	1.23E+05	1.23E+05	1.22E+05	1.20E+05	1.15E+05	9.73E+04	6.08E+04	1.17E+04
BR-82	3.60E+07	8.99E+06	8.99E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
KR-85	4.36E+10	1.96E+10	1.32E+10	5.19E+08	1.26E+03	0.	0.	0.	0.	0.	0.	0.
RB-83	3.12E+03	7.80E+02	7.80E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.

RB-84 2.92E+03 7.29E+02 7.29E+02 0.	Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RB-86 R-94E-07 2,24E-07 2,24E-07 0. 0. 0. 0. 0. 0. 0.	RB-84	2.92E+03	7.29E+02	7.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-87				2.24E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
NR-85				1.76E+05									
SR-89 3.48E-01 8.69E-00 8.69E-00 0. 0. 0. 0. 0. 0. 0.			1.15E+08	1.15E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
N=90			8.69E+00	8.69E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.
Y-88			2.77E+11	2.20E+11	6.69E+10	5.73E+08	1.36E+02	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
Y-90 3,25E+11 2,75E+11 2,19E+11 6,70E+10 5,73E+08 1,36E+02 8,48E+01 5,10E+01 3,26E+01 2,68E+01 1,79E+03 4,45E+00 ZR-95 3,88E+06 2,75E+05 2,56E+06 2,56E+06 2,55E+06 2,55E+06<			1.82E+06	1.82E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
				2.19E+11	6.70E+10	5.73E+08	1.36E+02	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
NR-95			2.37E+06	2.56E+06	2.56E+06	2.56E+06	2.56E+06	2.56E+06	2.55E+06	2.53E+06	2.45E+06	2.24E+06	1.63E+06
NB-93M			9.70E+05	9.70E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-94		2.32E+06	2.81E+06	2.96E+06	2.83E+06	2.80E+06	2.75E+06	2.65E+06	2.48E+06	2.40E+06	2.33E+06	2.12E+06	1.55E+06
NB-95		1.17E+07	1.55E+07	1.68E+07	1.68E+07	1.66E+07	1.62E+07	1.52E+07	1.19E+07	6.04E+06	5.53E+05	5.98E+02	2.49E-08
NB-95M NG-93 3.06E+05 4.04E+05 4.36E+05 4.32E+05 4.15E+05 3.61E+05 2.43E+05 6.08E+04 1.16E+03 1.10E+03 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.		1.73E+07	4.33E+06	4.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95	NB-95M	8.45E+03	2.11E+03	2.11E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95M 8.59E+05 2.15E+05 2.15E+05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	MO-93	3.06E+05	4.04E+05	4.36E+05	4.32E+05	4.15E+05	3.61E+05	2.43E+05	6.08E+04	1.16E+03	1.10E-03	0.	0.
TC-95M 8.59E+05 2.15BE+05 2.40E+11 2.40E+11 2.40E+11 2.40E+11 2.39E+11 2.38E+11 2.38E+11 2.38E+11 1.73E+11 9.05E+10 9.27E+09 RU-103 4.73E+06 1.18E+06 1.18E+06 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	TC-95	1.92E+04	4.79E+03	4.79E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-103	TC-95M	8.59E+05	2.15E+05	2.15E+05	0.	0.	0.	0.	0.	0.	0.	0.	
RU-106 7.02E+10 1.76E+10 1.76E+10 2.06E-05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. RH-101 9.78E+04 2.54E+04 2.44E+04 4.83E-01 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	TC-99	1.67E+11	2.22E+11	2.40E+11	2.40E+11	2.40E+11	2.39E+11	2.38E+11	2.32E+11	2.18E+11	1.73E+11		
RU-106 7.02E+10 1.76E+10 1.76E+10 1.76E+10 2.06E-05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. RH-103M 4.2TE+06 1.07E+06 1.07E+06 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	RU-103	4.73E+06	1.18E+06	1.18E+06	0.	0.	0.	0.	0.	0.	0.		
RH-101	RU-106	7.02E+10	1.76E+10	1.76E+10	2.06E-05	0.	0.	0.	0.	0.	0.	0.	
RH-103M	RH-101	9.78E+04	2.54E+04	2.44E+04	4.83E-01	0.	0.	0.	0.	0.	0.	0.	
PD-107 6.52E+04 8.65E+04 9.36E+04 9.36E+04 9.36E+04 9.36E+04 9.36E+04 9.36E+04 9.35E+04 9.35E+04 9.35E+04 9.35E+04 9.35E+04 9.37E+04 8.41E+04 AG-108 2.03E+06 2.39E+06 2.38E+06 1.81E+06 6.07E+05 1.33E+04 2.42E-01 0. 0. 0. 0. 0. 0. AG-108M 2.33E+07 2.75E+07 2.73E+07 2.08E+07 6.98E+06 1.53E+05 2.78E+00 0. 0. 0. 0. 0. AG-109M 2.29E+09 5.73E+08 5.73E+08 8.13E-04 0. 0. 0. 0. 0. 0. 0. 0. 0. AG-110 5.96E+05 1.49E+05 1.49E+05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. AG-110M 4.38E+07 1.10E+07 1.10E+07 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. CD-109 2.29E+09 5.73E+08 5.73E+08 8.13E-04 0. 0. 0. 0. 0. 0. 0. 0. 0. CD-113 2.83E-10 5.36E-10 6.24E-10 6.91E-10 6.97E-10 6.97E-10 6.97E-10 6.97E-10 6.97E-10 6.97E-10 CD-113M 9.87E+07 5.30E+07 3.57E+07 2.79E+06 1.05E+02 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. CD-115M 6.62E+05 1.65E+05 1.65E+05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. IN-113M 1.06E+07 2.64E+06 2.64E+06 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. IN-114M 3.84E+05 9.59E+04 9.59E+04 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	RH-103M	4.27E+06	1.07E+06	1.07E+06	0.	0.	0.	0.	0.	0.	0.		
AG-108	RH-106	7.02E+10	1.76E+10	1.76E+10	2.06E-05	0.	0.	0.	0.	0.		-	
AG-108M 2.33E+06 2.75E+07 2.75E+07 2.08E+07 6.98E+06 1.53E+05 2.78E+00 0. 0. 0. 0. 0. 0. AG-109M 2.29E+09 5.73E+08 5.73E+08 8.13E-04 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. AG-110 5.96E+05 1.49E+05 1.49E+05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	PD-107	6.52E+04	8.65E+04	9.36E+04	9.36E+04	9.36E+04	9.36E+04	9.36E+04	9.35E+04				
AG-109M 2.29E+09 5.73E+08 5.73E+08 8.13E-04 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. AG-110 5.96E+05 1.49E+05 1.49E+05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	AG-108	2.03E+06	2.39E+06	2.38E+06	1.81E+06	6.07E+05	1.33E+04	2.42E-01	0.	0.			-
AG-109M 2.29B+09 5.73B+08 5.73E+08 6.13B=04 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	AG-108M	2.33E+07	2.75E+07	2.73E+07	2.08E+07	6.98E+06	1.53E+05	2.78E+00	0.				
AG-110	AG-109M	2.29E+09	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.				
CD-109	AG-110	5.96E+05	1.49E+05	1.49E+05	0.	0.	0.	0.	0.				
CD-113	AG-110M	4.38E+07	1.10E+07	1.10E+07	0.	0.	0.	0.	0.				
CD-113M 9.87E+07 5.30E+07 3.57E+07 2.79E+06 1.05E+02 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	CD-109	2.29E+09	5.73E+08	5.73E+08	8.13E-04	0.				-			
CD-113M 9.87E+07 5.30E+07 3.57E+07 2.79E+06 1.05E+02 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	CD-113	2.83E-10	5.36E-10	6.24E-10	6.91E-10	6.97E-10	6.97E-10						
IN-113M 1.06E+07 2.64E+06 2.64E+06 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	CD-113M	9.87E+07	5.30E+07	3.57E+07	2.79E+06	1.05E+02	0.	0.	-				
IN-113M 1.06E+07 2.64E+06 2.64E+06 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	CD-115M	6.62E+05	1.65E+05	1.65E+05	0.	0.	0.		-				
IN-114 3.84E+05 9.59E+04 9.59E+04 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	IN-113M	1.06E+07	2.64E+06	2.64E+06	0.	0.	-		-				
IN-114M 3.84E+05 9.59E+04 9.59E+04 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	IN-114	3.67E+05	9.17E+04	9.17E+04	0.	0.		-	-				
IN-115 8.35E-09 1.13E-08 1.22E-08 1.23E-08 1.23E-08 1.23E-08 1.23E-08 1.23E-08 1.23E-08 1.23E-08 1.23E-08	IN-114M	3.84E+05	9.59E+04	9.59E+04	0.	0.							
	IN-115	8.35E-09	1.13E-08	1.22E-08	1.23E-08								

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
IN-115M	4.54E+01	1.13E+01	1.13E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-113	1.06E+07	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	1.77E+03	4.43E+02	4.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121	1.13E+05	1.16E+05	1.04E+05	5.58E+04	4.49E+03	6.62E-01	0.	0.	0.	0.	0.	0.
SN-121M	1.48E+05	1.50E+05	1.35E+05	7.19E+04	5.78E+03	8.53E-01	0.	0.	0.	0.	0.	0.
SN-123	1.15E+03	2.86E+02	2.86E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	4.00E+05	5.31B+05	5.74E+05	5.74E+05	5.73E+05	5.70E+05	5.63E+05	5.36E+05	4.67E+05	2.87E+05	7.18E+04	5.61E+02
SB-124	1.21E+06	3.03E+05	3.03E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	2.79E+08	7.12E+07	6.98E+07	2.57E+02	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	5.84E+04	7.49E+04	8.10E+04	8.04E+04	8.02E+04	7.99E+04	7.88E+04	7.50E+04	6.53E+04	4.02E+04	1.01E+04	7.85E+01
SB-126M	4.00E+05	5.31E+05	5.74E+05	5.74E+05	5.73E+05	5.70E+05	5.63E+05	5.36E+05	4.67E+05	2.87E+05	7.18E+04	5.61E+02
TE-125M	5.36E+07	1.37E+07	1.34E+07	6.27E+01	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	7.19E+01	1.80E+01	1.80E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	6.27E+08	1.57E+08	1.57E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.38E+09	9.80E+09	1.06E+10	1.05E+10	1.01E+10							
J-131	1.61E+07	4.03E+06	4.03E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	1.06E+04	2.64E+03	2.64E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	1.36E+10	3.42E+09	3.40E+09	1.71E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	5.83E+06	7.73E+06	8.36E+06	8.36B+06	8.36E+06	8.36E+06	8.36E+06	8.34E+06	8.29E+06	8.12E+06	7.64E+06	6.19E+06
CS-137	5.32E+12	4.47E+12	3.57E+12	1.12E+12	1.11E+10	1.15E+03	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
BA-133	8.62E+08	4.04E+08	2.74E+08	1.09E+07	2.69E+01	0.	0.	0.	0.	0.	0.	0.
BA-137M	5.02E+12	4.22E+12	3.37E+12	1.06E+12	1.04E+10	1.08E+03	8.01E+01	4.82E+01	3.01E+01	2.53E+01	1.69E+01	4.20E+00
CE-139	1.32E+07	3.30E+06	3.30E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	6.76E+07	1.69E+07	1.69E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-144	7.62E+08	1.91E+08	1.91E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	7.62E+08	1.91E+08	1.91E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	9.15E+06	2.29E+06	2.29E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	7.38E-06	1.01E-05	1.09E-05	1.10E-05								
PM-147	1.83E+12	4.65E+11	4.58E+11	8.38E+05	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	4.94E+02	7.05E+02	7.64E+02	7.75E+02	7.75E+02	7.75B+02	7.75E+02	7.75E+02	7.75E+02	7.75E+02	7.75E+02	7.75E+02
SM-148	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.08E-14	9.20E-14
SM-151	2.32E+10	2.61E+10	2.51E+10	1.71E+10	3.67E+09	1.67E+07	3.41E+00	0.	0.	0.	0.	0.
EU-152	7.60E+09	4.29E+09	2.94E+09	2.25E+08	7.82E+03	0.	0.	0.	0.	0.	0.	0.
EU-154	1.17E+09	4.81E+08	3.39E+08	5.99B+06	5.87E-01	0.	0.	0.	0.	0.	0.	0.
BU-155	8.07E+07	2.31E+07	2.01E+07	1.38E+04	0.	0.	0.	0.	0.	0.	0.	0.
GD-153	4.35E-04	7.79E-04	9.03E-04	9.97E-04	1.01E-03							
GD-152	2.15E+07	5.37E+06	5.37E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
OD 155	2.135707	5.57570	5.5.5.00		-							

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TB-160	1,24E+08	3.11E+07	3.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	9.11E+04	1.19E+05	1.28E+05	1.24E+05	1.11E+05	7.39E+04	2.33E+04	4.08E+02	3.92E-03	0.	0.	0.
TM-170	5.33E+06	1.33E+06	1.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-171	1.18E+04	2.97E+03	2.96E+03	4.28E-05	0.	0.	0.	0.	0.	0.	0.	0.
YB-169	1.17E+03	2.91E+02	2.91E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.20E+08	3.00E+07	3.00E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TA-179	6.76E+09	1.69E+09	1.69E+09	7.34E+00	0.	0.	0.	0.	0.	0.	0.	0.
TA-182	1.23E+06	3.07E+05	3.07E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-181	1.49E+08	3.73E+07	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-186	1.84E+03	4.61E+02	4.61E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-186	4.74E-13	6.38E-13	6.91E-13	6.93E-13								
OS-191	1.16E+08	2.91E+07	2.91E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	3.36E+07	8.41E+06	8.41E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-197	5.27E+07	1.32E+07	1.32E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	1.84E+07	4.60E+06	4.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-204	1.97E+09	5.32E+08	4.95E+08	5.15E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	2.19E+05	4.17E+05	5.04E+05	5.92E+05	5.68E+05	4.20E+05	1.82E+05	3.86E+04	9.93E+04	2.64E+05	4.24E+05	4.67E+05
TL-207	9.90E+09	1.87E+10	2.26E+10	2.70E+10	2.80E+10	2.78E+10	2.73E+10	2.56E+10	2.20E+10	1.67E+10	1.52E+10	1.52E+10
TL-208	8.27E+10	1.38E+11	1.52E+11	1.59E+11								
TL-209	2.76E+04	7.73E+04	1.15E+05	2.13E+05	6.03E+05	1.95E+06	5.63E+06	1.72E+07	4.41E+07	1.15E+08	2.21E+08	2.45E+08
TL-210	7.01E+07	9.35E+07	1.01E+08	9.87E+07	9.05E+07	6.69E+07	2.89E+07	6.23E+06	1.61E+07	4.26E+07	6.85E+07	7.54E+07
PB-207M	1.64E+07	1.45E+07	1.20E+07	4.45E+06	8.48E+04	8.08E-02	0.	0.	0.	0.	0.	0.
PB-209	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
PB-210	1.69E+11	3.21E+11	3.88E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PB-211	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PB-212	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
PB-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-207	1.95E+07	1.73E+07	1.42E+07	5.29E+06	1.01E+05	9.60E-02	0.	0.	0.	0.	0.	0.
BI-210	1.69E+11	3.21E+11	3.88E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-211	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
BI-212	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
BI-213	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.88E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
BI-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-215	8.00E+03	1.51E+04	1.83E+04	2.17E+04	2.26E+04	2.24E+04	2.20E+04	2.06E+04	1.77E+04	1.35E+04	1.23E+04	1.22E+04
PO-208	4.25E+04	1.09E+04	1.06E+04	6.81E-02	0.	0.	0.	0.	0.	0.	0.	0.
PO-210	1.66E+11	3.19E+11	3.86E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PO-211	2.74E+07	5.17E+07	6.27E+07	7.47E+07	7.76E+07	7.71E+07	7.56E+07	7.10E+07	6.09E+07	4.63E+07	4.21E+07	4.21E+07

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PO-212	1.47E+11	2.45E+11	2.70E+11	2.83E+11								
PO-213	1.29E+06	3.62E+06	5.39E+06	9.98E+06	2.83E+07	9.12E+07	2.64E+08	8.05E+08	2.07E+09	5.38E+09	1.04E+10	1.15E+10
PO-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PO-215	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PO-216	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
PO-218	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
AT-215	2.28E+04	4.31E+04	5.22E+04	6.22E+04	6.47E+04	6.42E+04	6.30E+04	5.91E+04	5.08E+04	3.86E+04	3.51E+04	3.50E+04
AT-217	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
AT-218	6.67E+07	8.90E+07	9.57E+07	9.40E+07	8.62E+07	6.37E+07	2.76E+07	5.93E+06	1.53E+07	4.06E+07	6.52E+07	7.18E+07
AT-219	8.25E+03	1.55E+04	1.88E+04	2.24E+04	2.33E+04	2.31E+04	2.27E+04	2.13E+04	1.83E+04	1.39E+04	1.26E+04	1.26E+04
RN-217	1.58E+02	4.44E+02	6.60E+02	1.22E+03	3.46E+03	1.12E+04	3.23E+04	9.87E+04	2.53E+05	6.60E+05	1.27E+06	1.40E+06
RN-218	6.67E+04	8.90E+04	9.57E+04	9.40E+04	8.62E+04	6.37E+04	2.76E+04	5.93E+03	1.53E+04	4.06E+04	6.52E+04	7.18E+04
RN-219	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
RN-220	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
RN-222	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
FR-221	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
FR-223	1.37E+08	2.59E+08	3.14E+08	3.73E+08	3.88E+08	3.85E+08	3.78E+08	3.55E+08	3.05E+08	2.32E+08	2.11E+08	2.10E+08
RA-223	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
RA-224	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
RA-225	1.32E+06	3.70E+06	5.51E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
RA-226	3.40E+11	4.47E+11	4.80E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
RA-228	2.48E+11	3.89E+11	4.27E+11	4.42E+11								
AC-225	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
AC-227	9.96E+09	1.88E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
AC-228	2.48E+11	3.89E+11	4.27E+11	4.42E+11								
TH-227	9.80E+09	1.85E+10	2.24E+10	2.67E+10	2.77E+10	2.75E+10	2.70E+10	2.54E+10	2.18E+10	1.66E+10	1.51E+10	1.50E+10
TH-228	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
TH-229	1.33E+06	3.71E+06	5.51E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
TH-230	5.52E+07	1.34E+08	1.94E+08	3.50E+08	9.72E+08	3.14E+09	9.27E+09	2.99E+10	8.20E+10	2.06E+11	3.27E+11	3.59E+11
TH-231	1.05E+10	1.40E+10	1.52E+10									
TH-232	3.08E+11	4.08E+11	4.42E+11									
TH-234	2.47E+11	3.33E+11	3.60E+11	3.61E+11								
PA-231	1.96E+10	2.60E+10	2.82E+10	2.82E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PA-232	1.21E+02	1.62E+02	1.75E+02	1.75E+02	1.75E+02	1.74E+02	1.73E+02	1.68E+02	1.53E+02	1.12E+02	4.58E+01	2.00E+00
PA-233	9.35E+09	1.27E+10	1.37E+10	1.39E+10	1.43E+10	1.49E+10	1.52E+10	1.51E+10	1.50E+10	1.47E+10	1.38E+10	1.10E+10
PA-234	3.95E+08	5.32E+08	5.76E+08	5.78E+08								
PA-234M	2.47E+11	3.33E+11	3.60E+11	3.61E+11								

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
U-232	3.65E+08	3.91E+08	3.64E+08	2.20E+08	2.94E+07	3.95E+04	1.37E+04	1.33E+04	1.21E+04	8.87E+03	3.63E+03	1.59E+02
U-233	6.95E+08	9.23E+08	9.99E+08	1.00E+09	1.01E+09	1.06E+09	1.18E+09	1.60E+09	2.73E+09	5.93E+09	1.07E+10	1.17E+10
U-234	2.36E+11	3.13E+11	3.39E+11	3.39E+11	3.39E+11	3.39E+11	3.40E+11	3.40E+11	3.41E+11	3.45E+11	3.52E+11	3.60E+11
	1.06E+10	1.41E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10	1.52E+10
U-235		3.99E+09	4.32E+09	4.32E+09	4.32E+09	4.32E+09	4.33E+09	4.33E+09	4.34E+09	4.33E+09	4.30E+09	4.22E+09
U-236	3.01E+09	2.24E+07	1.50E+07	1.40E+06	9.64E+01	4.65E+00	4.14E+00	2.34E+00	4.58E-01	1.52E-03	0.	0.
U-237	3.88E+07		3.61E+11	3.61E+11	3.61E+11	3.61E+11	3.61E+11	3.61E+11	3.61E+11	3.61E+11	3.61E+11	3.61E+11
U-238	2.52E+11	3.34E+11		1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02
U-240	1.36E+02	1.81E+02	1.96E+02		1.09E+05	1.09E+05	1.08E+05	1.05E+05	9.58E+04	7.00E+04	2.86E+04	1.25E+03
NP-236	7.63E+04	1.01E+05	1.10E+05	1.10E+05	1.43E+10	1.49E+10	1.52E+10	1.51E+10	1.50E+10	1.47E+10	1.38E+10	1.10E+10
NP-237	9.55E+09	1.27E+10	1.38E+10	1.39E+10	2.34E+03	7.49E+01	4.02E-03	0.	0.	0.	0.	0.
NP-238	6.57E+03	7.94E+03	7.96E+03	6.25E+03			1.75E+09	9.09E+08	1.38E+08	1.92E+05	1.30E-03	0.
NP-239	1.59E+09	2.14E+09	2.31E+09	2.31E+09	2.26E+09	2.12E+09	2.16E-01	2.16E-01	2.16E-01	2.16E-01	2.16E-01	2.15E-01
NP-240	1.49E-01	1.99E-01	2.15E-01	2.16E-01	2.16E-01	2.16E-01		1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02
NP-240M	1.36E+02	1.81E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02		1.20E+04	8.76E+03	3.58E+03	1.56E+02
PU-236	1.89E+06	4.92E+05	4.82E+05	1.37E+04	1.37E+04	1.36E+04	1.35E+04	1.31E+04 0.	0.	0.705+03	0.	0.
PU-238	1.79E+12	2.02E+12	1.94E+12	1.31E+12	2.69E+11	1.07E+09	1.49E+02	-	0. 2.22E+11	0. 2.96E+10	9.43E+07	1.72E-01
PU-239	3.65E+11	4.84E+11	5.24E+11	5.23E+11	5.20E+11	5.10E+11	4.81E+11	3.94E+11		1.84E+06	1.96E+02	1.96E+02
PU-240	5.06E+10	6.77E+10	7.34E+10	7.34E+10	7.19E+10	6.68E+10	5.40E+10	2.57E+10	3.09E+09		5.12E-06	0.
PU-241	1.66E+12	9.30E+11	6.32E+11	5.70E+10	3.93E+06	1.90E+05	1.69E+05	9.55E+04	1.87E+04	6.20E+01	6.48E+08	1.78E+08
PU-242	7.84E+08	1.04E+09	1.13E+09	1.13E+09	1.12E+09	1.12E+09	1.12E+09	1.10E+09	1.06E+09	9.36E+08		1.96E+02
PU-244	1.37E+02	1.81E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	
AM-241	5.03E+12	6.50E+12	6.87E+12	6.36E+12	4.61E+12	1.50E+12	6.07E+10	9.10E+05	1.97E+04	6.53E+01	5.40E-06	0.
AM-242	1.44E+06	1.72E+06	1.73E+06	1.35E+06	5.07E+05	1.62E+04	8.72E-01	0.	0.	0.	0.	0.
AM-242M	1.46E+06	1.74E+06	1.74E+06	1.36E+06	5.09E+05	1.63E+04	8.76E-01	0.	0.	0.	0.	0.
AM-243	1.62E+09	2.14E+09	2.32E+09	2.31E+09	2.26E+09	2.12E+09	1.75E+09	9.09E+08	1.38E+08	1.92E+05	1.30E-03	0.
CM-242	2.44E+06	1.74E+06	1.75E+06	1.12E+06	4.21E+05	1.35E+04	7.23E-01	0.	0.	0.	0.	0.
CM-243	3.25E+07	2.65E+07	2.08E+07	6.16E+06	4.75E+04	1.92E-03	0.	0.	0.	0.	0.	0.
CM-244	3.74E+11	2.54E+11	1.82E+11	2.69E+10	1.27E+07	2.95E-05	0.	0.	0.	0.	0.	0.
CM-245	1.06E+05	1.43E+05	1.57E+05	1.61E+05	1.75E+05	1.90E+05	1.69E+05	9.53E+04	1.87E+04	6.19E+01	5.11E-06	0.
CM-246	2.12E+05	2.80E+05	3.03E+05	3.01E+05	2.92E+05	2.64E+05	1.97E+05	7.15E+04	3.93E+03	1.54E-01	0.	0.
CM-248	2.48E+02	3.57E+02	3.87E+02	3.94E+02	3.94E+02	3.93E+02	3.91E+02	3.86E+02	3.70E+02	3.21E+02	2.13E+02	5.10E+01
BK-250	7.25E+02	1.81E+02	1.81E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
CF-249	1.01E+06	1.28E+06	1.35E+06	1.22E+06	8.21E+05	2.06E+05	3.95E+03	3.85E-03	0.	0.	0.	0.
CF-250	4.65E+02	2.52E+02	1.65E+02	1.24E+01	3.10E-04	0.	0.	0.	0.	0.	0.	0.
CF-252	3.43E+06	8.70E+05	8.57E+05	1.79E+00	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	7.27E+02	1.82E+02	1.82E+02	0.	0.	0.	0.	0.	0.	0 -	0.	0.
Summe	5.76E+13	5.79E+13	5.83E+13	4.83E+13	4.20E+13	3.54E+13	2.71E+13	1.52E+13	8.09E+12	8.37E+12	9.52E+12	9.77E+12

C.7.2

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RA-224	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
RA-226	3.40E+11	4.47E+11	4.80E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
AC-225	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
AC-227	1.37E+08	2.59E+08	3.14E+08	3.73E+08	3.88E+08	3.85E+08	3.78E+08	3.55E+08	3.05E+08	2.32E+08	2.11E+08	2.10E+08
TH-227	9.80E+09	1.85E+10	2.24E+10	2.67E+10	2.77E+10	2.75E+10	2.70E+10	2.54E+10	2.18E+10	1.66E+10	1.51E+10	1.50E+10
TH-228	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
TH-229	1.33E+06	3.71E+06	5.51E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
TH-230	5.52E+07	1.34E+08	1.94E+08	3.50E+08	9.72E+08	3.14E+09	9.27E+09	2.99E+10	8.20E+10	2.06E+11	3.27E+11	3.59E+11
TH-232	3.08E+11	4.08E+11	4.42E+11									
PA-231	1.96E+10	2.60E+10	2.82E+10	2.82E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
U-232	3.65E+08	3.91E+08	3.64E+08	2.20E+08	2.94E+07	3.95E+04	1.37E+04	1.33E+04	1.21E+04	8.87E+03	3.63E+03	1.59E+02
U-233	6.95E+08	9.23E+08	9.99E+08	1.00E+09	1.01E+09	1.06E+09	1.18E+09	1.60E+09	2.73E+09	5.93E+09	1.07E+10	1.17E+10
U-234	2.36E+11	3.13E+11	3.39E+11	3.39E+11	3.39E+11	3.39E+11	3.40E+11	3.40E+11	3.41E+11	3.45E+11	3.52E+11	3.60E+11
U-235	1.06E+10	1.41E+10	1.52E+10									
U-236	3.01E+09	3.99E+09	4.32E+09	4.32E+09	4.32E+09	4.32E+09	4.33E+09	4.33E+09	4.34E+09	4.33E+09	4.30E+09	4.22E+09
U-238	2.52E+11	3.34E+11	3.61E+11									
NP-236	1.22E+02	1.62E+02	1.75E+02	1.75E+02	1.75E+02	1.74E+02	1.73E+02	1.68E+02	1.53E+02	1.12E+02	4.58E+01	2.00E+00
NP-237	9.55E+09	1.27E+10	1.38E+10	1.39E+10	1.43E+10	1.49E+10	1.52E+10	1.51E+10	1.50E+10	1.47E+10	1.38E+10	1.10E+10
PU-236	1.89E+06	4.92E+05	4.82E+05	1.37E+04	1.37E+04	1.36E+04	1.35E+04	1.31E+04	1.20E+04	8.76E+03	3.58E+03	1.56E+02
PU-238	1.79E+12	2.02E+12	1.94E+12	1.31E+12	2.69E+11	1.07E+09	1.49E+02	0.	0.	0.	0.	0.
PU-239	3.65E+11	4.84E+11	5.24E+11	5.23E+11	5.20E+11	5.10E+11	4.81E+11	3.94E+11	2.22E+11	2.96E+10	9.43E+07	1.72E-01
PU-240	5.06E+10	6.77E+10	7.34E+10	7.34E+10	7.19E+10	6.68E+10	5.40E+10	2.57E+10	3.09E+09	1.84E+06	1.96E+02	1.96E+02
PU-241	4.06E+07	2.28E+07	1.55E+07	1.40E+06	9.63E+01	4.65E+00	4.14E+00	2.34E+00	4.58E-01	1.52E-03	1.25E-10	0.
PU-242	7.84E+08	1.04E+09	1.13E+09	1.13E+09	1.12E+09	1.12E+09	1.12E+09	1.10E+09	1.06E+09	9.36E+08	6.48E+08	1.78E+08
PU-244	1.36E+02	1.81E+02	1.96E+02									
AM-241	5.03E+12	6.50E+12	6.87E+12	6.36E+12	4.61E+12	1.50E+12	6.07E+10	9.10E+05	1.97E+04	6.53E+01	5.40E-06	0.
AM-242M	6.69E+03	7.97E+03	7.99E+03	6.25E+03	2.34E+03	7.49E+01	4.02E-03	0.	0.	0.	0.	0.
AM-243	1.62E+09	2.14E+09	2.32E+09	2.31E+09	2.26E+09	2.12E+09	1.75E+09	9.09E+08	1.38E+08	1.92E+05	1.30E-03	0.
CM-242	2.44E+06	1.74E+06	1.75E+06	1.12E+06	4.21E+05	1.35E+04	7.23E-01	0.	0.	0.	0.	0.
CM-243	3.25E+07	2.64E+07	2.07E+07	6.14E+06	4.74E+04	1.91E-03	0.	0.	0.	0.	0.	0.
CM-244	3.74E+11	2.54E+11	1.82E+11	2.69E+10	1.27E+07	2.95E-05	0.	0.	0.	0.	0.	0.
CM-245	1.06E+05	1.43E+05	1.57E+05	1.61E+05	1.75E+05	1.90E+05	1.69E+05	9.53E+04	1.87E+04	6.19E+01	5.11E-06	0.
CM-246	2.12E+05	2.80E+05	3.03E+05	3.00E+05	2.92E+05	2.64E+05	1.97E+05	7.15E+04	3.93E+03	1.54E-01	0.	0.
CM-248	2.28E+02	3.28E+02	3.55E+02	3.61E+02	3.61E+02	3.61E+02	3.59E+02	3.54E+02	3.40E+02	2.94E+02	1.96E+02	4.68E+01
CF-249	1.01E+06	1.28E+06	1.35E+06	1.22E+06	8.21E+05	2.06E+05	3.95E+03	3.85E-03	0.	0.	0.	0.
CF-250	4.65E+02	2.52E+02	1.65E+02	1.24E+01	3.10E-04	0.	0.	0.	0.	0.	0.	0.
CF-252	3.32E+06	8.43E+05	8.30E+05	1.74E+00	0.	0.	0.	0.	0.	0.	0.	0.

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie Landessammelstellen (L)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	7.38E-06	1.01E-05	1.09E-05	1.10E-05								
SM-147	4.94E+02	7.05E+02	7.64E+02	7.75E+02								
SM-148	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.08E-14	9.20E-14
GD-152	4.35E-04	7.79E-04	9.03E-04	9.97E-04	1.01E-03							
OS-186	4.74E-13	6.38E-13	6.91E-13	6.93E-13								
BI-210	2.19E+05	4.17E+05	5.04E+05	5.92E+05	5.68E+05	4.20E+05	1.82E+05	3.86E+04	9.93E+04	2.64E+05	4.24E+05	4.67E+05
BI-211	9.90E+09	1.87E+10	2.26E+10	2.70E+10	2.80E+10	2.78E+10	2.73E+10	2.56E+10	2.20E+10	1.67E+10	1.52E+10	1.52E+10
BI-212	8.27E+10	1.38E+11	1.52E+11	1.59E+11								
BI-213	2.76E+04	7.73E+04	1.15E+05	2.13E+05	6.03E+05	1.95E+06	5.63E+06	1.72E+07	4.41E+07	1.15E+08	2.21E+08	2.45E+08
BI-214	7.01E+07	9.35E+07	1.01E+08	9.87E+07	9.05E+07	6.69E+07	2.89E+07	6.23E+06	1.61E+07	4.26E+07	6.85E+07	7.54E+07
PO-208	4.25E+04	1.09E+04	1.06E+04	6.81E-02	0.	0.	0.	0.	0.	0.	0.	0.
PO-210	1.66E+11	3.19E+11	3.86E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PO-211	2.74E+07	5.17E+07	6.27E+07	7.47E+07	7.76E+07	7.71E+07	7.56E+07	7.10E+07	6.09E+07	4.63E+07	4.21E+07	4.21E+07
PO-212	1.47E+11	2.45E+11	2.70E+11	2.83E+11								
PO-213	1.29E+06	3.62E+06	5.39E+06	9.98E+06	2.83E+07	9.12E+07	2.64E+08	8.05E+08	2.07E+09	5.38E+09	1.04E+10	1.15E+10
PO-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PO-215	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PO-216	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
PO-218	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
AT-215	2.28E+04	4.31E+04	5.22E+04	6.22E+04	6.47E+04	6.42E+04	6.30E+04	5.91E+04	5.08E+04	3.86E+04	3.51E+04	3.50E+04
AT-217	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.88E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
AT-218	6.67E+07	8.90E+07	9.56E+07	9.39E+07	8.61E+07	6.37E+07	2.75E+07	5.93E+06	1.53E+07	4.05E+07	6.52E+07	7.18E+07
AT-219	8.00E+03	1.51E+04	1.83E+04	2.17E+04	2.26E+04	2.24E+04	2.20E+04	2.06E+04	1.77E+04	1.35E+04	1.23E+04	1.22E+04
RN-217	1.58E+02	4.44E+02	6.60E+02	1.22E+03	3.46E+03	1.12E+04	3.23E+04	9.87E+04	2.53E+05	6.60E+05	1.27E+06	1.40E+06
RN-218	6.67E+04	8.90E+04	9.57E+04	9.40E+04	8.62E+04	6.37E+04	2.76E+04	5.93E+03	1.53E+04	4.06E+04	6.52E+04	7.18E+04
RN-219	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
RN-220	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
RN-222	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
FR-221	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
FR-223	8.25E+03	1.55E+04	1.88E+04	2.24E+04	2.33E+04	2.31E+04	2.27E+04	2.13E+04	1.83E+04	1.39E+04	1.26E+04	1.26E+04
RA-223	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a	
ES-254	7.27E+02	1.82E+02	1.82E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	-												
Summe	1.12E+13	1.45E+13	1.53E+13	1.42E+13	1.12E+13	7.24E+12	4.85E+12	4.15E+12	4.22E+12	4.78E+12	5.51E+12	5.72E+12	

C.7.3

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
P.D. 04	2.92E+03	7.29E+02	7.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-84		2.24E+07	2.24E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-86	8.94E+07	1.62E+05	1.76E+05	1.76E+05	1.76E+05	1.76E+05	1.76E+05	1.76E+05	1.76B+05	1.76E+05	1.76E+05	1.76E+05
RB-87	1.22E+05	1.62E+05	1.15E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-85	4.59E+08		8.69E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-89	3.48E+01	8.69E+00	2.20E+11	6.69E+10	5.73E+08	1.36E+02	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
SR-90	3.31E+11	2.77E+11		0.092410	0.	0.	0.	0.	0.	0.	0.	0.
Y-88	7.26E+06	1.82E+06	1.82E+06	6.70E+10	5.73E+08	1.36E+02	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
Y-90	3.25E+11	2.75E+11	2.19E+11		2.56E+06	2.56E+06	2.56E+06	2.55E+06	2.53E+06	2.45E+06	2.24E+06	1.63E+06
ZR-93	1.78E+06	2.37E+06	2.56E+06	2.56E+06	0.	0.	0.	0.	0.	0.	0.	0.
ZR-95	3.88E+06	9.70E+05	9.70E+05	0.	0. 2.80E+06	2.75E+06	2.65E+06	2.48E+06	2.40E+06	2.33E+06	2.12E+06	1.55E+06
NB-93M	2.32E+06	2.81E+06	2.96E+06	2.83E+06		1.62E+07	1.52E+07	1.19E+07	6.04E+06	5.53E+05	5.98E+02	2.49E-08
NB-94	1.17E+07	1.55E+07	1.68E+07	1.68E+07	1.66E+07	0.	0.	0.	0.041100	0.	0.	0.
NB-95	1.73E+07	4.33E+06	4.33E+06	0.	0.		0.	0.	0.	0.	0.	0.
NB-95M	8.45E+03	2.11E+03	2.11E+03	0.	0.	0.	2.43E+05	6.08E+04	1.16E+03	1.10E-03	0.	0.
MO-93	3.06E+05	4.04E+05	4.36E+05	4.32E+05	4.15E+05	3.61E+05	0.	0.	0.	0.	0.	0.
TC-95	1.92E+04	4.79E+03	4.79E+03	0.	0.	0.			0.	0.	0.	0.
TC-95M	8.59E+05	2.15E+05	2.15E+05	0.	0.	0.	0.	0.	0. 2.18E+11	1.73E+11	9.05E+10	9.27E+09
TC-99	1.67E+11	2.22E+11	2.40E+11	2.40E+11	2.40E+11	2.39E+11	2.38E+11	2.32E+11	0.	0.	0.	0.
RU-103	4.73E+06	1.18E+06	1.18E+06	0.	0.	0.	0.	0.		0.	0.	0.
RU-106	7.02E+10	1.76E+10	1.76E+10	2.06E-05	0.	0.	0.	0.	0.		0.	0.
RH-101	9.78E+04	2.54E+04	2.44E+04	4.83E-01	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	4.27E+06	1.07E+06	1.07E+06	0.	0.	0.	0.	0.	0.	0.		0.
RH-106	7.02E+10	1.76E+10	1.76E+10	2.06E-05	0.	0.	0.	0.	0.	0.	0.	8.41E+04
PD-107	6.52E+04	8.65E+04	9.36E+04	9.36E+04	9.36E+04	9.36E+04	9.36E+04	9.35E+04	9.33E+04	9.26E+04	9.07E+04	
AG-108	2.03E+06	2.39E+06	2.38E+06	1.81E+06	6.07E+05	1.33E+04	2.42E-01	0.	0.	0.	0.	0.
AG-108M	2.33E+07	2.75E+07	2.73E+07	2.08E+07	6.98E+06	1.53E+05	2.78E+00	0.	0.	0.	0.	0.
AG-109M	2.29E+09	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	5.96E+05	1.49E+05	1.49E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	4.38E+07	1.10E+07	1.10E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	2.29E+09	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	2.83E-10	5.36E-10	6.24E-10	6.91E-10	6.97E-10	6.97E-10	6.97E-10	6.97E-10	6.97E-10	6.97E-10	6.97E-10	6.97E-10
CD-113M	9.87E+07	5.30E+07	3.57E+07	2.79E+06	1.05E+02	0.	0.	0.	0.	0.	0.	0.
CD-115M	6.62E+05	1.65E+05	1.65E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.06E+07	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114	3.67E+05	9.17E+04	9.17E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	3.84E+05	9.59E+04	9.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	8.35E-09	1.13E-08	1.22E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08

Nukli	id	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
IN-11	L5M	4.54E+01	1.13E+01	1.13E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-11		1.06E+07	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-11		1.77E+03	4.43E+02	4.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-12		1.13E+05	1.16E+05	1.04E+05	5.58E+04	4.49E+03	6.62E-01	0.	0.	0.	0.	0.	0.
SN-12		1.48E+05	1.50E+05	1.35E+05	7.19E+04	5.78E+03	8.53E-01	0.	0.	0.	0.	0.	0.
SN-12		1.15E+03	2.86E+02	2.86E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-12		4.00E+05	5.31E+05	5.74E+05	5.74E+05	5.73E+05	5.70E+05	5.63E+05	5.36E+05	4.67E+05	2.87E+05	7.18E+04	5.61E+02
SB-12		1.21E+06	3.03E+05	3.03E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-12		2.79E+08	7.12E+07	6.98E+07	2.57E+02	0.	0.	0.	0.	0.	0.	0.	0.
SB-12		5.84E+04	7.49E+04	8.10E+04	8.04E+04	8.02E+04	7.99E+04	7.88E+04	7.50E+04	6.53E+04	4.02E+04	1.01E+04	7.85E+01
SB-12		4.00E+05	5.31E+05	5.74E+05	5.74E+05	5.73E+05	5.70E+05	5.63E+05	5.36E+05	4.67E+05	2.87E+05	7.18E+04	5.61E+02
TE-12		5.36E+07	1.37E+07	1.34E+07	6.27E+01	0.	0.	0.	0.	0.	0.	0.	0.
TE-12		7.19E+01	1.80E+01	1.80E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125		6.27E+08	1.57E+08	1.57E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129		7.38E+09	9.80E+09	1.06E+10	1.05E+10	1.01E+10							
J-13		1.61E+07	4.03E+06	4.03E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-13		1.06E+04	2.64E+03	2.64E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-13	34	1.36E+10	3.42E+09	3.40E+09	1.71E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-13	35	5.83E+06	7.73E+06	8.36E+06	8.36E+06	8.36E+06	8.36E+06	8.36E+06	8.34E+06	8.29E+06	8.12E+06	7.64E+06	6.19E+06
CS-13	37	5.32E+12	4.47E+12	3.57E+12	1.12E+12	1.11E+10	1.15E+03	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
BA-13	33	8.62E+08	4.04E+08	2.74E+08	1.09E+07	2.69E+01	0.	0.	0.	0.	0.	0.	0.
BA-13	37M	5.02E+12	4.22E+12	3.37E+12	1.06E+12	1.04E+10	1.08E+03	8.01E+01	4.82E+01	3.01E+01	2.53E+01	1.69E+01	4.20E+00
CE-1:	39	1.32E+07	3.30E+06	3.30E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-1	41	6.76E+07	1.69E+07	1.69E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-1	44	7.62E+08	1.91E+08	1.91E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-1	44	7.62E+08	1.91E+08	1.91E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-1	44M	9.15E+06	2.29E+06	2.29E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-1	47	1.83E+12	4.65E+11	4.58E+11	8.38E+05	0.	0.	0.	0.	0.	0.	0.	0.
SM-1	51	2.32E+10	2.61E+10	2.51E+10	1.71E+10	3.67E+09	1.67E+07	3.41E+00	0.	0.	0.	0.	0.
EU-1	52	7.60E+09	4.29E+09	2.94E+09	2.25E+08	7.82E+03	0.	0.	0.	0.	0.	0.	0.
EU-1	54	1.17E+09	4.81E+08	3.39E+08	5.99E+06	5.87E-01	0.	0.	0.	0.	0.	0.	0.
EU-1	55	8.07E+07	2.31E+07	2.01E+07	1.38E+04	0.	0.	0.	0.	0.	0.	0.	0.
GD-1	53	2.15E+07	5.37E+06	5.37E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TB-1	60	1.24E+08	3.11E+07	3.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-1	66M	9.11E+04	1.19E+05	1.28E+05	1.24E+05	1.11E+05	7.39E+04	2.33E+04	4.08E+02	3.92E-03	0.	0.	0.
TM-1	.70	5.33E+06	1.33E+06	1.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TM-1	71	1.18E+04	2.97E+03	2.96E+03	4.28E-05	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
YB-169	1.17E+03	2.91E+02	2.91E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.20E+08	3.00E+07	3.00E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TA-179	6.76E+09	1.69E+09	1.69E+09	7.34E+00	0.	0.	0.	0.	0.	0.	0.	0.
TA-182	1.23E+06	3.07E+05	3.07E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-181	1.49E+08	3.73E+07	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-186	1.84E+03	4.61B+02	4.61E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-191	1.16E+08	2.91E+07	2.91E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	3.36E+07	8.41E+06	8.41E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-197	5.27E+07	1.32E+07	1.32E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	1.84E+07	4.60E+06	4.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-204	1.97E+09	5.32E+08	4.95E+08	5.15E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	2.19E+05	4.17E+05	5.04E+05	5.92E+05	5.68E+05	4.20E+05	1.82E+05	3.86E+04	9.93E+04	2.64E+05	4.24E+05	4.67E+05
TL-207	9.90E+09	1.87E+10	2.26E+10	2.70E+10	2.80E+10	2.78E+10	2.73E+10	2.56E+10	2.20E+10	1.67E+10	1.52E+10	1.52E+10
TL-208	8.27E+10	1.38E+11	1.52E+11	1.59E+11								
TL-209	2.76E+04	7.73E+04	1.15E+05	2.13E+05	6.03E+05	1.95E+06	5.63E+06	1.72E+07	4.41E+07	1.15E+08	2.21E+08	2.45E+08
TL-210	7.01E+07	9.35E+07	1.01E+08	9.87E+07	9.05E+07	6.69E+07	2.89E+07	6.23E+06	1.61E+07	4.26E+07	6.85E+07	7.54E+07
PB-207M	1.64E+07	1.45E+07	1.20E+07	4.45E+06	8.48E+04	8.08E-02	0.	0.	0.	0.	0.	0.
PB-209	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
PB-210	1.69E+11	3.21E+11	3.88E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PB-211	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PB-212	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
PB-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-207	1.95E+07	1.73E+07	1.42E+07	5.29E+06	1.01E+05	9.60E-02	0.	0.	0.	0.	0.	0.
BI-210	1.69E+11	3.21E+11	3.88E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-211	2.74E+07	5.17E+07	6.27E+07	7.47E+07	7.76E+07	7.71E+07	7.56E+07	7.10E+07	6.09E+07	4.63E+07	4.21E+07	4.21E+07
BI-212	1.47E+11	2.45E+11	2.70E+11	2.83E+11								
BI-213	1.29E+06	3.62E+06	5.39E+06	9.98E+06	2.82E+07	9.12E+07	2.64E+08	8.05E+08	2.07E+09	5.38E+09	1.04E+10	1.15E+10
BI-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-215	8.00E+03	1.51E+04	1.83E+04	2.17E+04	2.26E+04	2.24E+04	2.20E+04	2.06E+04	1.77E+04	1.35E+04	1.23E+04	1.22E+04
PO-215	2.28E+04	4.31E+04	5.22E+04	6.22E+04	6.47E+04	6.42E+04	6.30E+04	5.91E+04	5.08E+04	3.86E+04	3.51E+04	3.50E+04
PO-218	6.67E+07	8.90E+07	9.57E+07	9.40E+07	8.62E+07	6.37E+07	2.76E+07	5.93E+06	1.53E+07	4.06E+07	6.52E+07	7.18E+07
AT-217	1.58E+02	4.44E+02	6.60E+02	1.22E+03	3.46E+03	1.12E+04	3.23E+04	9.87E+04	2.53E+05	6.60E+05	1.27E+06	1.40E+06
AT-218	6.67E+04	8.90E+04	9.57E+04	9.40E+04	8.62E+04	6.37E+04	2.76E+04	5.93E+03	1.53E+04	4.06E+04	6.52E+04	7.18E+04
AT-219	2.47E+02	4.66E+02	5.65E+02	6.72E+02	6.98E+02	6.94E+02	6.80E+02	6.39E+02	5.48E+02	4.17E+02	3.79E+02	3.78E+02
FR-223	1.37E+08	2.59E+08	3.14E+08	3.73E+08	3.88E+08	3.85E+08	3.78E+08	3.55E+08	3.05E+08	2.32E+08	2.11E+08	2.10E+08
RA-225	1.32E+06	3.70E+06	5.51E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
RA-228	2.48E+11	3.89E+11	4.27E+11	4.42E+11								

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie Landessammelstellen (L)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	1.17E+12	5.96E+11	4.01E+11	2.42E+10	3.23E+05	0.	0.	0.	0.	0.	0.	0.
BE-10	8.04E+02	1.07E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.14E+03	1.10E+03	1.01E+03	7.48E+02
C-14	1.88E+13	2.49E+13	2.69E+13	2.68E+13	2.61E+13	2.40E+13	1.88E+13	8.08E+12	7.19E+11	1.51E+08	4.70E-03	0.
NA-22	4.89E+08	1.24E+08	1.22E+08	2.01E+02	0.	0.	0.	0.	0.	0.	0.	0.
AL-26	1.49E+03	1.97E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.11E+03	2.07E+03	1.94E+03	1.60E+03	8.11E+02
P-32	8.24E+08	2.06E+08	2.06E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
P-32 P-33	1.51E+06	3.77E+05	3.77E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.39E+09	1.35E+09	1.35E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.17E+10	1.56E+10	1.69E+10	1.69E+10	1.69E+10	1.68E+10	1.68E+10	1.65E+10	1.57E+10	1.34E+10	8.45E+09	1.69E+09
K-40	6.91E+08	9.16E+08	9.92E+08	9.91E+08	9.91E+08							
CA-41	1.87E+05	2.48E+05	2.68E+05	2.68E+05	2.68E+05	2.67E+05	2.63E+05	2.51E+05	2.19E+05	1.36E+05	3.49E+04	3.00E+02
CA-41	2.27E+07	5.68E+06	5.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	4.25E+07	1.06E+07	1.06E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48	6.42E+06	1.60E+06	1.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48 CR-51	1.20E+10	3.00E+09	3.00E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.75E+11	4.38E+10	4.38E+10	1.12E-07	0.	0.	0.	0.	0.	0.	0.	0.
MN-54 FE-55	2.70E+10	6.87E+09	6.75E+09	1.80E+04	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	7.62E+05	1.90E+05	1.90E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-56	1.02E+05	2.54E+04	2.54E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.30E+10	3.25E+09	3.25E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	8.65E+07	2.16E+07	2.16E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	8.48E+12	2.62E+12	2.19E+12	3.06E+09	1.16E-02	0.	0.	0.	0.	0.	0.	0.
NI-59	8.08E+08	1.07E+09	1.16E+09	1.16E+09	1.16E+09	1.15E+09	1.13E+09	1.06E+09	8.79E+08	4.60E+08	7.25E+07	1.12E+05
NI-63	2.76E+11	3.13E+11	3.03E+11	2.11E+11	4.99E+10	3.18E+08	1.70E+02	0.	0.	0.	0.	0.
N1-65	1.71E+09	4.27E+08	4.27E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
		1.29E+02	1.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
GA-67	5.17E+02 8.31E+07	2.08E+07	2.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-75		1.14E+05	1.23E+05	1.23E+05	1.23E+05	1.23E+05	1.22E+05	1.20E+05	1.15E+05	9.73E+04	6.08E+04	1.17E+04
SE-79	8.57E+04	8.99E+06	8.99E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
BR-82	3.60E+07		1.32E+10	5.19E+08	1.26E+03	0.	0.	0.	0.	0.	0.	0.
KR-85	4.36E+10	1.96E+10			0.	0.	0.	0.	0.	0.	0.	0.
RB-83	3.12E+03	7.80E+02	7.80E+02	0.	٥.	٠.	· .	٠.	V *	• •		

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	l Mio a
												1 505.10
AC-227	9.82E+09	1.85E+10	2.24E+10	2.67E+10	2.77E+10	2.75E+10	2.70E+10	2.54E+10	2.18E+10	1.66E+10	1.51E+10	1.50E+10
AC-228	2.48E+11	3.89E+11	4.27E+11	4.42E+11								
TH-231	1.05E+10	1.40E+10	1.52E+10									
TH-234	2.47E+11	3.33E+11	3.60E+11	3.61E+11								
PA-232	1.21E+02	1.62E+02	1.75E+02	1.75E+02	1.75E+02	1.74E+02	1.73E+02	1.68E+02	1.53E+02	1.12E+02	4.58E+01	2.00E+00
PA-233	9.35E+09	1.27E+10	1.37E+10	1.39E+10	1.43E+10	1.49E+10	1.52E+10	1.51E+10	1.50E+10	1.47E+10	1.38E+10	1.10E+10
PA-234	3.95E+08	5.32E+08	5.76E+08	5.78E+08								
PA-234M	2.47E+11	3.33E+11	3.60E+11	3.61E+11								
U-237	3.88E+07	2.24E+07	1.50E+07	1.40E+06	9.64E+01	4.65E+00	4.14E+00	2.34E+00	4.58E-01	1.52E-03	0.	0.
U-240	1.36E+02	1.81E+02	1.96E+02									
NP-236	7.62E+04	1.01E+05	1.09E+05	1.09E+05	1.09E+05	1.09E+05	1.08E+05	1.05E+05	9.56E+04	6.99E+04	2.86E+04	1.25E+03
NP-238	6.57E+03	7.94E+03	7.96E+03	6.25E+03	2.34E+03	7.49E+01	4.02E-03	0.	0.	0.	0.	0.
NP-239	1.59E+09	2.14E+09	2.31E+09	2.31E+09	2.26E+09	2.12E+09	1.75E+09	9.09E+08	1.38E+08	1.92E+05	1.30E-03	0.
NP-240	1.49E-01	1.99E-01	2.15E-01	2.16E-01	2.15E-01							
NP-240M	1.36E+02	1.81E+02	1.96E+02									
PU-241	1.66E+12	9.30E+11	6.32E+11	5.70E+10	3.93E+06	1.90E+05	1.69E+05	9.55E+04	1.87E+04	6.20E+01	5.12E-06	0.
PU-244	1.65E-01	2.19E-01	2.37E-01	2.38E-01	2.37E-01							
AM-242	1.44E+06	1.72E+06	1.73E+06	1.35E+06	5.07E+05	1.62E+04	8.72E-01	0.	0.	0.	0.	0.
AM-242M	1.45E+06	1.73E+06	1.73E+06	1.35E+06	5.07E+05	1.62E+04	8.72E-01	0.	0.	0.	0.	0.
CM-243	9.44E+04	7.67E+04	6.03E+04	1.79E+04	1.38E+02	5.57E-06	0.	0.	0.	0.	0.	0.
CM-246	5.58E+01	7.38E+01	7.96E+01	7.90E+01	7.68E+01	6.94E+01	5.19E+01	1.88E+01	1.03E+00	4.04E-05	0.	0.
CM-248	2.05E+01	2.95E+01	3.20E+01	3.25E+01	3.25E+01	3.25E+01	3.23E+01	3.19E+01	3.06E+01	2.65E+01	1.76E+01	4.21E+00
BK-250	7.25E+02	1.81E+02	1.81E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
CF-250	3.58E-01	1.94E-01	1.27E-01	9.57E-03	2.39E-07	0.	0.	0.	0.	0.	0.	0.
CF-252	1.06E+05	2.69E+04	2.65E+04	5.54E-02	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	2.18E-05	5.45E-06	5.45E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	4.64E+13	4.33E+13	4.29E+13	3.41E+13	3.08E+13	2.82E+13	2.23E+13	1.11E+13	3.86E+12	3.60E+12	4.01E+12	4.06E+12

C.7.4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie Landessammelstellen (L)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	2.19E+05	4.17E+05	5.04E+05	5.92E+05	5.68E+05	4.20E+05	1.82E+05	3.86E+04	9.93E+04	2.64E+05	4.24E+05	4.67E+05
TL-207	9.90E+09	1.87E+10	2.26E+10	2.70E+10	2.80E+10	2.78E+10	2.73E+10	2.56E+10	2.20E+10	1.67E+10	1.52E+10	1.52E+10
TL-208	8.27E+10	1.38E+11	1.52E+11	1.59E+11	1.59E+11							
TL-209	2.76E+04	7.73E+04	1.15E+05	2.13E+05	6.03E+05	1.95E+06	5.63E+06	1.72E+07	4.41E+07	1.15E+08	2.21E+08	2.45E+08
TL-210	7.01E+07	9.35E+07	1.01E+08	9.87E+07	9.05E+07	6.69E+07	2.89E+07	6.23E+06	1.61E+07	4.26E+07	6.85E+07	7.54E+07
PB-207M	1.64E+07	1.45E+07	1.20E+07	4.45E+06	8.48E+04	8.08E-02	0.	0.	0.	0.	0.	0.
PB-209	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
PB-210	1.69E+11	3.21E+11	3.88E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PB-211	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PB-212	2.30E+11	3.83E+11	4.22E+11	4.42E+11	4.42E+11							
PB-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-207	1.95E+07	1.73E+07	1.42E+07	5.29E+06	1.01E+05	9.60E-02	0.	0.	0.	0.	0.	0.
BI-210	1.69E+11	3.21E+11	3.88E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-211	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79B+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
BI-212	2.30E+11	3.83E+11	4.22E+11	4.42E+11	4.42E+11							
BI-213	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.88E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
BI-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
BI-215	8.00E+03	1.51E+04	1.83E+04	2.17E+04	2.26E+04	2.24E+04	2.20E+04	2.06E+04	1.77E+04	1.35E+04	1.23E+04	1.22E+04
PO-210	1.66E+11	3.19E+11	3.86E+11	4.55E+11	4.37E+11	3.23E+11	1.40E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PO-211	2.74E+07	5.17E+07	6.27E+07	7.47E+07	7.76E+07	7.71E+07	7.56E+07	7.10E+07	6.09E+07	4.63E+07	4.21E+07	4.21E+07
PO-212	1.47E+11	2.45E+11	2.70E+11	2.83E+11	2.83E+11							
PO-213	1.29E+06	3.62E+06	5.39E+06	9.98E+06	2.83E+07	9.12E+07	2.64E+08	8.05E+08	2.07E+09	5.38E+09	1.04E+10	1.15E+10
PO-214	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
PO-215	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PO-216	2.30E+11	3.83E+11	4.22E+11	4.42E+11	4.42E+11 3.59E+11							
PO-218	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	
AT-215	2.28E+04	4.31E+04	5.22E+04	6.22E+04	6.47E+04	6.42E+04	6.30E+04	5.91E+04	5.08E+04	3.86E+04	3.51E+04	3.50E+04 1.17E+10
AT-217	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	7.18E+07
AT-218	6.67E+07	8.90E+07	9.57E+07	9.40E+07	8.62E+07	6.37E+07	2.76E+07	5.93E+06	1.53E+07	4.06E+07	6.52E+07	1.26E+04
AT-219	8.25E+03	1.55E+04	1.88E+04	2.24E+04	2.33E+04	2.31E+04	2.27E+04	2.13E+04	1.83E+04	1.39E+04	1.26E+04 1.27E+06	1.40E+06
RN-217	1.58E+02	4.44E+02	6.60E+02	1.22E+03	3.46E+03	1.12E+04	3.23E+04	9.87E+04	2.53E+05	6.60E+05	1.2/E+V6	1.405+00

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-218	6.67E+04	8.90E+04	9.57E+04	9.40E+04	8.62E+04	6.37E+04	2.76E+04	5.93E+03	1.53E+04	4.06E+04	6.52E+04	7.18E+04
RN-219	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
RN-220	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
RN-222	3.34E+11	4.45E+11	4.79E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
FR-221	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
FR-223	1.37E+08	2.59E+08	3.14E+08	3.73E+08	3.88E+08	3.85E+08	3.78E+08	3.55E+08	3.05E+08	2.32E+08	2.11E+08	2.10E+08
RA-223	9.92E+09	1.87E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
RA-224	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
RA-225	1.32E+06	3.70E+06	5.51E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
RA-226	3.40E+11	4.47E+11	4.80E+11	4.70E+11	4.31E+11	3.19E+11	1.38E+11	2.97E+10	7.64E+10	2.03E+11	3.26E+11	3.59E+11
RA-228	2.48E+11	3.89E+11	4.27E+11	4.42E+11								
AC-225	1.32E+06	3.70E+06	5.50E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
AC-227	9.96E+09	1.88E+10	2.27E+10	2.71E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
AC-228	2.48E+11	3.89E+11	4.27E+11	4.42E+11								
TH-227	9.80E+09	1.85E+10	2.24E+10	2.67E+10	2.77E+10	2.75E+10	2.70E+10	2.54E+10	2.18E+10	1.66E+10	1.51E+10	1.50E+10
TH-228	2.30E+11	3.83E+11	4.22E+11	4.42E+11								
TH-229	1.33E+06	3.71E+06	5.51E+06	1.02E+07	2.89E+07	9.32E+07	2.70E+08	8.22E+08	2.11E+09	5.50E+09	1.06E+10	1.17E+10
TH-230	5.52E+07	1.34E+08	1.94E+08	3.50E+08	9.72E+08	3.14E+09	9.27E+09	2.99E+10	8.20E+10	2.06E+11	3.27E+11	3.59E+11
TH-231	1.05E+10	1.40E+10	1.52E+10									
TH-232	3.08E+11	4.08E+11	4.42E+11									
TH-234	2.47E+11	3.33E+11	3.60E+11	3.61E+11								
PA-231	1.96E+10	2.60E+10	2.82E+10	2.82E+10	2.81E+10	2.79E+10	2.74E+10	2.57E+10	2.21E+10	1.68E+10	1.53E+10	1.52E+10
PA-232	1.21E+02	1.62E+02	1.75E+02	1.75E+02	1.75E+02	1.74E+02	1.73E+02	1.68E+02	1.53E+02	1.12E+02	4.58E+01	2.00E+00
PA-233	9.35E+09	1.27E+10	1.37E+10	1.39E+10	1.43E+10	1.49E+10	1.52E+10	1.51E+10	1.50E+10	1.47E+10	1.38E+10	1.10E+10
PA-234	3.95E+08	5.32E+08	5.76E+08	5.78E+08								
PA-234M	2.47E+11	3.33E+11	3.60E+11	3.61E+11								
U-232	3.65E+08	3.91E+08	3.64E+08	2.20E+08	2.94E+07	3.95E+04	1.37E+04	1.33E+04	1.21E+04	8.87E+03	3.63E+03	1.59E+02
U-233	6.95E+08	9.23E+08	9.99E+08	1.00E+09	1.01E+09	1.06E+09	1.18E+09	1.60E+09	2.73E+09	5.93E+09	1.07E+10	1.17E+10
U-234	2.36E+11	3.13E+11	3.39E+11	3.39E+11	3.39E+11	3.39E+11	3.40E+11	3.40E+11	3.41E+11	3.45E+11	3.52E+11	3.60E+11
U-235	1.06E+10	1.41E+10	1.52E+10									
U-236	3.01E+09	3.99E+09	4.32E+09	4.32E+09	4.32E+09	4.32E+09	4.33E+09	4.33E+09	4.34E+09	4.33E+09	4.30E+09	4.22E+09
U-237	3.88E+07	2.24E+07	1.50E+07	1.40E+06	9.64E+01	4.65E+00	4.14E+00	2.34E+00	4.58E-01	1.52E-03	0.	0.
U-238	2.52E+11	3.34E+11	3.61E+11									
U-240	1.36E+02	1.81E+02	1.96E+02									
NP-236	7.63E+04	1.01E+05	1.10E+05	1.10E+05	1.09E+05	1.09E+05	1.08E+05	1.05E+05	9.58E+04	7.00E+04	2.86E+04	1.25E+03
NP-237	9.55E+09	1.27E+10	1.38E+10	1.39E+10	1.43E+10	1.49E+10	1.52E+10	1.51E+10	1.50E+10	1.47E+10	1.38E+10	1.10E+10
NP-238	6.57E+03	7.94E+03	7.96E+03	6.25E+03	2.34E+03	7.49E+01	4.02E-03	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
NP-239	1.59E+09	2.14E+09	2.31E+09	2.31E+09	2.26E+09	2.12E+09	1.75E+09	9.09E+08	1.38E+08	1.92E+05	1.30E-03	0.
NP-240	1.49E-01	1.99E-01	2.15E-01	2.16E-01	2.15E-01							
NP-240M	1.36E+02	1.81E+02	1.96E+02									
PU-236	1.89E+06	4.92E+05	4.82E+05	1.37E+04	1.37E+04	1.36E+04	1.35E+04	1.31E+04	1.20E+04	8.76E+03	3.58E+03	1.56E+02
PU-238	1.79E+12	2.02E+12	1.94E+12	1.31E+12	2.69E+11	1.07E+09	1.49E+02	0.	0.	0.	0.	0.
PU-239	3.65E+11	4.84E+11	5.24E+11	5.23B+11	5.20E+11	5.10E+11	4.81E+11	3.94E+11	2.22E+11	2.96E+10	9.43E+07	1.72E-01
PU-240	5.06E+10	6.77E+10	7.34E+10	7.34E+10	7.19E+10	6.68E+10	5.40E+10	2.57E+10	3.09E+09	1.84E+06	1.96E+02	1.96E+02
PU-241	1.66E+12	9.30E+11	6.32E+11	5.70E+10	3.93E+06	1.90E+05	1.69E+05	9.55E+04	1.87E+04	6.20E+01	5.12E-06	0.
PU-242	7.84E+08	1.04E+09	1.13E+09	1.13E+09	1.12E+09	1.12E+09	1.12E+09	1.10E+09	1.06E+09	9.36E+08	6.48E+08	1.78E+08
PU-244	1.37E+02	1.81E+02	1.96E+02									
AM-241	5.03E+12	6.50E+12	6.87E+12	6.36E+12	4.61E+12	1.50E+12	6.07E+10	9.10E+05	1.97E+04	6.53E+01	5.40E-06	0.
AM-242	1.44E+06	1.72E+06	1.73E+06	1.35E+06	5.07E+05	1.62E+04	8.72E-01	0.	0.	0.	0.	0.
AM-242M	1.46E+06	1.74E+06	1.74E+06	1.36E+06	5.09E+05	1.63E+04	8.76E-01	0.	0.	0.	0.	0.
AM-243	1.62E+09	2.14E+09	2.32E+09	2.31E+09	2.26E+09	2.12E+09	1.75E+09	9.09E+08	1.38E+08	1.92E+05	1.30E-03	0.
CM-242	2.44E+06	1.74E+06	1.75E+06	1.12E+06	4.21E+05	1.35E+04	7.23E-01	0.	0.	0.	0.	0.
CM-243	3.25E+07	2.65E+07	2.08E+07	6.16E+06	4.75E+04	1.92E-03	0.	0.	0.	0.	0.	0.
CM-244	3.74E+11	2.54E+11	1.82E+11	2.69E+10	1.27E+07	2.95E-05	0.	0.	0.	0.	0.	0.
CM-245	1.06E+05	1.43E+05	1.57E+05	1.61E+05	1.75E+05	1.90E+05	1.69E+05	9.53E+04	1.87E+04	6.19E+01	5.11E-06	0.
CM-246	2.12E+05	2.80E+05	3.03E+05	3.01E+05	2.92E+05	2.64E+05	1.97E+05	7.15E+04	3.93E+03	1.54E-01	0.	0.
CM-248	2.48E+02	3.57E+02	3.87E+02	3.94E+02	3.94E+02	3.93E+02	3.91E+02	3.86E+02	3.70E+02	3.21E+02	2.13E+02	5.10E+01
BK-250	7.25E+02	1.81E+02	1.81E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
CF-249	1.01E+06	1.28E+06	1.35E+06	1.22E+06	8.21E+05	2.06E+05	3.95E+03	3.85E-03	0.	0.	0.	0.
CF-250	4.65E+02	2.52E+02	1.65E+02	1.24E+01	3.10E-04	0.	0.	0.	0.	0.	0.	0.
CF-252	3.43E+06	8.70E+05	8.57E+05	1.79E+00	0.	0.	0.	0.	0.	0.	0.	0.
BS-254	7.27E+02	1.82E+02	1.82E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	1.53E+13	1.93E+13	2.02E+13	1.87E+13	1.55E+13	1.11E+13	8.01E+12	6.86E+12	7.12E+12	8.17E+12	9.41E+12	9.75E+12

C.7.5

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie Landessammelstellen (L)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	1.17E+12	5.96E+11	4.01E+11	2.42E+10	3.23E+05	0.	0.	0.	0.	0.	0.	0.
BE-10	8.04E+02	1.07E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.14E+03	1.10E+03	1.01E+03	7.48E+02
C-14	1.88E+13	2.49E+13	2.69E+13	2.68E+13	2.61E+13	2.40E+13	1.88E+13	8.08E+12	7.19E+11	1.51E+08	4.70E-03	0.
NA-22	4.89E+08	1.24E+08	1.22E+08	2.01E+02	0.	0.	0.	0.	0.	0.	0.	0.
AL-26	1.49E+03	1.97E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.13E+03	2.11E+03	2.07E+03	1.94E+03	1.60E+03	8.11E+02
P-32	8.24E+08	2.06E+08	2.06E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
P-33	1.51E+06	3.77E+05	3.77E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.39E+09	1.35E+09	1.35E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.17E+10	1.56E+10	1.69E+10	1.69E+10	1.69E+10	1.68E+10	1.68E+10	1.65E+10	1.57E+10	1.34E+10	8.45E+09	1.69E+09
K-40	6.91E+08	9.16E+08	9.92E+08	9.91E+08	9.91E+08							
CA-41	1.87E+05	2.48E+05	2.68E+05	2.68E+05	2.68E+05	2.67E+05	2.63E+05	2.51E+05	2.19E+05	1.36E+05	3.49E+04	3.00E+02
CA-45	2.27E+07	5.68E+06	5.68E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SC-46	4.25E+07	1.06E+07	1.06E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-48	6.42E+06	1.60E+06	1.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	1.20E+10	3.00E+09	3.00E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	1.75E+11	4.38E+10	4.38E+10	1.12E-07	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	2.70E+10	6.87E+09	6.75E+09	1.80E+04	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	7.62E+05	1.90E+05	1.90E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-56	1.02E+05	2.54E+04	2.54E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	1.30E+10	3.25E+09	3.25E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	8.65E+07	2.16E+07	2.16E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	8.48E+12	2.62E+12	2.19E+12	3.06E+09	1.16E-02	0.	0.	0.	0.	0.	0.	0.
NI-59	8.08E+08	1.07E+09	1.16E+09	1.16E+09	1.16E+09	1.15E+09	1.13E+09	1.06E+09	8.79E+08	4.60E+08	7.25E+07	1.12E+05
NI-63	2.76E+11	3.13E+11	3.03E+11	2.11E+11	4.99E+10	3.18E+08	1.70E+02	0.	0.	0.	0.	0.
ZN-65	1.71E+09	4.27E+08	4.27E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
GA-67	5.17E+02	1.29E+02	1.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-75	8.31E+07	2.08E+07	2.08E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	8.57E+04	1.14E+05	1.23E+05	1.23E+05	1.23E+05	1.23E+05	1.22E+05	1.20E+05	1.15E+05	9.73E+04	6.08E+04	1.17E+04
BR-82	3.60E+07	8.99E+06	8.99E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
KR-85	4.36E+10	1.96E+10	1.32E+10	5.19E+08	1.26E+03	0.	0.	0.	0.	0.	0.	0.
RB-83	3.12E+03	7.80E+02	7.80E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RB-84	2.92E+03	7.29E+02	7.29E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-86	8.94E+07	2.24E+07	2.24E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RB-87	1.22E+05	1.62E+05	1.76E+05									
SR-85	4.59E+08	1.15E+08	1.15E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-89	3.48E+01	8.69E+00	8.69E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.
SR-90	3.31E+11	2.77E+11	2.20E+11	6.69E+10	5.73E+08	1.36E+02	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
Y-88	7.26E+06	1.82E+06	1.82E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
Y-90	3.25E+11	2.75E+11	2.19E+11	6.70E+10	5.73E+08	1.36E+02	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
ZR-93	1.78E+06	2.37E+06	2.56E+06	2.56E+06	2.56E+06	2.56E+06	2.56E+06	2.55E+06	2.53E+06	2.45E+06	2.24E+06	1.63E+06
ZR-95	3.88E+06	9.70E+05	9.70E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-93M	2.32E+06	2.81E+06	2.96E+06	2.83E+06	2.80E+06	2.75E+06	2.65E+06	2.48E+06	2.40E+06	2.33E+06	2.12E+06	1.55E+06
NB-94	1.17E+07	1.55E+07	1.68E+07	1.68E+07	1.66E+07	1.62E+07	1.52E+07	1.19E+07	6.04E+06	5.53E+05	5.98E+02	2.49E-08
NB-95	1.73E+07	4.33E+06	4.33E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	8.45E+03	2.11E+03	2.11E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
MO-93	3.06E+05	4.04E+05	4.36E+05	4.32E+05	4.15E+05	3.61E+05	2.43E+05	6.08E+04	1.16E+03	1.10E-03	0.	0.
TC-95	1.92E+04	4.79E+03	4.79E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-95M	8.59E+05	2.15E+05	2.15E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-99	1.67E+11	2.22E+11	2.40E+11	2.40E+11	2.40E+11	2.39E+11	2.38E+11	2.32E+11	2.18E+11	1.73E+11	9.05E+10	9.27E+09
RU-103	4.73E+06	1.18E+06	1.18E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	7.02E+10	1.76E+10	1.76E+10	2.06E-05	0.	0.	0.	0.	0.	0.	0.	0.
RH-101	9.78E+04	2.54E+04	2.44E+04	4.83E-01	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	4.27E+06	1.07E+06	1.07E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	7.02E+10	1.76E+10	1.76E+10	2.06E-05	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	6.52E+04	8.65E+04	9.36E+04	9.36E+04	9.36E+04	9.36E+04	9.36E+04	9.35E+04	9.33E+04	9.26E+04	9.07E+04	8.41E+04
AG-108	2.03E+06	2.39E+06	2.38E+06	1.81E+06	6.07E+05	1.33E+04	2.42E-01	0.	0.	0.	0.	0.
AG-108M	2.33E+07	2.75E+07	2.73E+07	2.08E+07	6.98E+06	1.53E+05	2.78E+00	0.	0.	0.	0.	0.
AG-109M	2.29E+09	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	5.96E+05	1.49E+05	1.49E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	4.38E+07	1.10E+07	1.10E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	2.29E+09	5.73E+08	5.73E+08	8.13E-04	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	2.83E-10	5.36E-10	6.24E-10	6.91E-10	6.97E-10							
CD-113M	9.87E+07	5.30E+07	3.57E+07	2.79E+06	1.05E+02	0.	0.	0.	0.	0.	0.	0.
CD-115M	6.62E+05	1.65E+05	1.65E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-113M	1.06E+07	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114	3.67E+05	9.17E+04	9.17E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-114M	3.84E+05	9.59E+04	9.59E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-115	8.35E-09	1.13E-08	1.22E-08	1.23E-08								

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
IN-115M	4.54E+01	1.13E+01	1.13E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-113	1.06E+07	2.64E+06	2.64E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	1.77E+03	4.43E+02	4.43E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121	1.13E+05	1.16E+05	1.04E+05	5.58E+04	4.49E+03	6.62E-01	0.	0.	0.	0.	0.	0.
SN-121M	1.48E+05	1.50E+05	1.35E+05	7.19E+04	5.78E+03	8.53E-01	0.	0.	0.	0.	0.	0.
SN-123	1.15E+03	2.86E+02	2.86E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	4.00E+05	5.31E+05	5.74E+05	5.74E+05	5.73E+05	5.70E+05	5.63E+05	5.36E+05	4.67E+05	2.87E+05	7.18E+04	5.61E+02
SB-124	1.21E+06	3.03E+05	3.03E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-125	2.79E+08	7.12E+07	6.98E+07	2.57E+02	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	5.84E+04	7.49E+04	8.10E+04	8.04E+04	8.02E+04	7.99E+04	7.88E+04	7.50E+04	6.53E+04	4.02E+04	1.01E+04	7.85E+01
SB-126M	4.00E+05	5.31E+05	5.74E+05	5.74E+05	5.73E+05	5.70E+05	5.63E+05	5.36E+05	4.67E+05	2.87E+05	7.18E+04	5.61E+02
TE-125M	5.36E+07	1.37E+07	1.34E+07	6.27E+01	0.	0.	0.	0.	0.	0.	0.	0.
TE-129	7.19E+01	1.80E+01	1.80E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	6.27E+08	1.57E+08	1.57E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-129	7.38E+09	9.80E+09	1.06E+10	1.05E+10	1.01E+10							
J-131	1.61E+07	4.03E+06	4.03E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	1.06E+04	2.64E+03	2.64E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS-134	1.36E+10	3.42E+09	3.40E+09	1.71E+02	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	5.83E+06	7.73E+06	8.36E+06	8.36E+06	8.36E+06	8.36E+06	8.36E+06	8.34E+06	8.29E+06	8.12E+06	7.64E+06	6.19E+06
CS-137	5.32E+12	4.47E+12	3.57E+12	1.12E+12	1.11E+10	1.15E+03	8.48E+01	5.10E+01	3.19E+01	2.68E+01	1.79E+01	4.45E+00
BA-133	8.62E+08	4.04E+08	2.74E+08	1.09E+07	2.69E+01	0.	0.	0.	0.	0.	0.	0.
BA-137M	5.02E+12	4.22E+12	3.37E+12	1.06E+12	1.04E+10	1.08E+03	8.01E+01	4.82E+01	3.01E+01	2.53E+01	1.69E+01	4.20E+00
CE-139	1.32E+07	3.30E+06	3.30E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-141	6.76E+07	1.69E+07	1.69E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CE-144	7.62E+08	1.91E+08	1.91E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	7.62E+08	1.91E+08	1.91E+08	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	9.15E+06	2.29E+06	2.29E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	7.38E-06	1.01E-05	1.09E-05	1.10E-05								
PM-147	1.83E+12	4.65E+11	4.58E+11	8.38E+05	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	4.94E+02	7.05E+02	7.64E+02	7.75E+02								
SM-148	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.08E-14	9.20E-14
SM-151	2.32E+10	2.61E+10	2.51E+10	1.71E+10	3.67E+09	1.67E+07	3.41E+00	0.	0.	0.	0.	0.
EU-152	7.60E+09	4.29E+09	2.94E+09	2.25E+08	7.82E+03	0.	0.	0.	0.	0.	0.	0.
EU-154	1.17E+09	4.81E+08	3.39E+08	5.99E+06	5.87E-01	0.	0.	0.	0.	0.	0.	0.
EU-155	8.07E+07	2.31E+07	2.01E+07	1.38E+04	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	4.35E-04	7.79E-04	9.03E-04	9.97E-04	1.01E-03							
GD-153	2.15B+07	5.37E+06	5.37E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TB-160	1.24E+08	3.11E+07	3.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	9.11E+04	1.19E+05	1.28E+05	1.24E+05	1.11E+05	7.39E+04	2.33E+04	4.08E+02	3.92E-03	0.	0.	0.
TM-170	5.33E+06	1.33E+06	1.33E+06	0.	0	0.	0.	0.	0.	0.	0.	0.
TM-171	1.18E+04	2.97E+03	2.96E+03	4.28E-05	0.	0.	0.	0.	0.	0.	0.	0.
YB-169	1.17E+03	2.91E+02	2.91E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-181	1.20E+08	3.00E+07	3.00E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TA-179	6.76E+09	1.69E+09	1.69E+09	7.34E+00	0.	0.	0.	0.	0.	0.	0.	0.
TA-182	1.23E+06	3.07E+05	3.07E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
W-181	1.49E+08	3.73E+07	3.73E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-186	1.84E+03	4.61E+02	4.61E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.
OS-186	4.74E-13	6.38E-13	6.91E-13	6.93E-13								
OS-191	1.16E+08	2.91E+07	2.91E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	3.36E+07	8.41E+06	8.41E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-197	5.27E+07	1.32E+07	1.32E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	1.84E+07	4.60E+06	4.60E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-204	1.97E+09	5.32E+08	4.95E+08	5.15E+04	0.	0.	0.	0.	0.	0.	0.	0.
PO-208	4.25E+04	1.09E+04	1.06E+04	6.81E-02	0.	0.	0.	0.	0.	0.	0.	0.
Summe	4.23E+13	3.86E+13	3.81E+13	2.96E+13	2.65E+13	2.43E+13	1.91E+13	8.34E+12	9.65E+11	1.99E+11	1.10E+11	2.21E+10

C.8

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie Stilllegung (S)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	4.28E+14	7.95E+13	2.59E+13	1.56E+12	2.08E+07	0.	0.	0.	0.	0.	0.	0.
BE-10	2.80E+03	2.79E+03	2.76E+03	2.68E+03	2.46E+03	1.82E+03						
C-14	1.17E+15	1.16E+15	1.16E+15	1.15E+15	1.13E+15	1.03E+15	8.12E+14	3.48E+14	3.10E+13	6.51E+09	2.03E-01	0.
NA-22	6.54E+03	2.21E+00	1.07E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	2.50E+11	2.50E+11	2.50E+11	2.50E+11	2.50E+11	2.49E+11	2.48E+11	2.44E+11	2.33E+11	1.98E+11	1.25E+11	2.50E+10
AR-39	3.17E+11	2.94E+11	2.79E+11	2.45E+11	1.46E+11	2.41E+10	1.39E+08	2.04E+00	0.	0.	0.	0.
K-40	1.28E+08											
CA-41	8.58E+10	8.58E+10	8.57E+10	8.57E+10	8.56E+10	8.52E+10	8.40E+10	8.01E+10	7.00E+10	4.35E+10	1.12E+10	9.60E+07
CA-45	5.08E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	9.97E+09	2.78E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	8.19E+13	3.70E+10	2.18E+08	5.81E+02	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	5.02E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	1.67E+16	3.23E+14	2.33E+13	3.24E+10	1.23E-01	0.	0.	0.	0.	0.	0.	0.
NI-59	4.17E+14	4.17E+14	4.17E+14	4.17E+14	4.16E+14	4.13E+14	4.06E+14	3.80E+14	3.16E+14	1.66E+14	2.61E+13	4.04E+10
NI-63	1.57E+17	1.27E+17	1.10E+17	7.64E+16	1.80E+16	1.15E+14	6.16E+07	0.	0.	0.	0.	0.
ZN-65	1.03E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.46E+11	1.44E+11	1.37E+11	1.16E+11	7.28E+10	1.41E+10
RB-87	6.67E+06											
SR-90	1.42E+14	6.95E+13	4.32E+13	1.31E+13	1.12E+11	1.03E+04	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
Y-90	1.42E+14	6.95E+13	4.32E+13	1.31E+13	1.13E+11	1.03E+04	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
ZR-93	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.69E+10	6.67E+10	6.61E+10	6.40E+10	5.85E+10	4.26E+10
NB-93M	1.56E+11	1.76E+11	1.80E+11	1.81E+11	1.77E+11	1.62E+11	1.30E+11	8.00E+10	6.31E+10	6.08E+10	5.56E+10	4.05E+10
NB-94	6.08E+13	6.08E+13	6.07B+13	6.06E+13	6.02E+13	5.88E+13	5.49E+13	4.32E+13	2.18E+13	2.00E+12	2.16E+09	9.01E-02
MO-93	1.36E+11	1.35E+11	1.35E+11	1.34E+11	1.28E+11	1.12E+11	7.52E+10	1.88E+10	3.58E+08	3.41E+02	0.	0.
TC-99	3.44E+13	3.44E+13	3.44E+13	3.44E+13	3.44E+13	3.43E+13	3.41E+13	3.33E+13	3.12E+13	2.49E+13	1.30E+13	1.33E+12
RU-106	8.60E+09	9.46E+00	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	8.60E+09	9.46E+00	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	3.81E+07	3.81E+07	3.81E+07	3.81E+07	3.81E+07	3.80E+07	3.80E+07	3.80E+07	3.79E+07	3.77E+07	3.69E+07	3.42E+07
AG-108	3.81E+11	3.23E+11	2.90E+11	2.21E+11	7.41E+10	1.62E+09	2.95E+04	0.	0.	0.	0.	0.
AG-108M	4.38E+12	3.72E+12	3.33E+12	2.54E+12	8.52E+11	1.87E+10	3.39E+05	0.	0.	0.	0.	0.
AG-109M	3.79E+05	2.95E-02	5.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	l'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AG-110	5.42E+06	3.42E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	3.99E+08	2.52E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	3.79E+05	2.95E-02	5.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	2.65E-07	3.33E-07	3.45E-07	3.51E-07	3.52E-07							
CD-113M	4.27E+10	9.26E+09	3.34E+09	2.61E+08	9.78E+03	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.86E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	1.87E+11	1.86E+11	1.86E+11	1.86E+11	1.86E+11	1.85E+11	1.83E+11	1.74E+11	1.51E+11	9.33E+10	2.33E+10	1.82E+08
SB-125	3.00E+13	1.65E+10	1.11E+08	4.08E+02	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	2.61E+10	2.61E+10	2.61E+10	2.61E+10	2.61E+10	2.59E+10	2.56E+10	2.44E+10	2.12E+10	1.31E+10	3.26E+09	2.55E+07
SB-126M	1.87E+11	1.86E+11	1.86E+11	1.86E+11	1.86E+11	1.85E+11	1.83E+11	1.74E+11	1.51E+11	9.33E+10	2.33E+10	1.82E+08
TE-125M	7.33E+12	4.03E+09	2.70E+07	9.95E+01	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.41E+09	1.40E+09	1.39E+09	1.35E+09								
CS-134	3.01E+12	1.25E+08	1.51E+05	7.57E-03	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	2.95E+11	2.94E+11	2.92E+11	2.86E+11	2.69E+11	2.18E+11						
CS-137	1.92E+16	9.59E+15	6.04E+15	1.90E+15	1.87E+13	1.78E+06	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
BA-133	1.93E+08	2.78E+07	7.66E+06	3.04E+05	7.53E-01	0.	0.	0.	0.	0.	0.	0.
BA-137M	1.81E+16	9.06E+15	5.71E+15	1.80E+15	1.77E+13	1.68E+06	2.67E+03	1.00E+03	1.08E+02	5.10E+01	4.08E+01	2.53E+01
CE-144	2.63E+08	6.58E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	2.63E+08	6.58E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.16E+06	7.89E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	3.33E-03											
SM-148	1.89E-14	4.24E-14	5.89E-14	1.01E-13	2.69E-13	8.59E-13	2.54E-12	8.44E-12	2.53E-11	8.42E-11	2.53E-10	8.42E-10
SM-151	2.13E+13	1.69E+13	1.45E+13	9.86E+12	2.11E+12	9.63E+09	1.97E+03	0.	0.	0.	0.	0.
EU-152	3.29E+13	7.05E+12	2.53E+12	1.94E+11	6.73E+06	0.	0.	0.	0.	0.	0.	0.
EU-154	1.53E+13	1.36E+12	2.70E+11	4.78E+09	4.68E+02	0.	0.	0.	0.	0.	0.	0.
EU-155	6.44E+11	8.16E+09	4.44E+08	3.05E+05	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	7.35E+00	8.26E+00	8.42E+00	8.50E+00								
TL-206	2.23E+00	7.82E+00	1.38E+01	3.74E+01	2.52E+02	2.34E+03	1.59E+04	8.99E+04	2.95E+05	7.77E+05	1.22E+06	1.30E+06
TL-207	9.21E+07	1.16E+08	1.32E+08	1.72E+08	3.33E+08	8.92E+08	2.45E+09	7.42E+09	1.83E+10	3.47E+10	3.97E+10	3.97E+10
TL-208	1.44E+10	1.07E+10	8.72E+09	5.28E+09	7.07E+08	1.85E+06	1.25E+06	1.32E+06	1.52E+06	2.22E+06	4.21E+06	1.11E+07
TL-209	2.56E+04	5.35E+04	7.61E+04	1.47E+05	6.25E+05	4.73E+06	3.55E+07	3.07E+08	1.66E+09	6.34E+09	1.35E+10	1.53E+10
TL-210	1.00E+03	2.60E+03	4.08E+03	9.17E+03	4.88E+04	4.00E+05	2.62E+06	1.46E+07	4.77E+07	1.26E+08	1.98E+08	2.10E+08
PB-209	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
PB-210	1.72E+06	6.02E+06	1.07E+07	2.88E+07	1.94E+08	1.80E+09	1.23E+10	6.92E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PB-211	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
PB-212	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
PB-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BI-210	1.72E+06	6.02E+06	1.07E+07	2.88E+07	1.94E+08	1.80E+09	1.23E+10	6.92E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
BI-211	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
BI-211	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
BI-212	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
BI-214	7.42E+01	9.34E+01	1.94E+07	1.39E+02	2.69E+02	7.19E+02	1.97E+03	5.98E+03	1.47E+04	2.80E+04	3.20E+04	3.20E+04
BI-215		5.91E+06	1.05E+02	2.85E+02	1.93E+02	1.80E+09	1.22E+10	6.91E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PO-210	1.67E+06		3.65E+05	4.77E+05	9.22E+05	2.47E+06	6.77E+06	2.05E+07	5.07E+07	9.62E+07	1.10E+08	1.10E+08
PO-211	2.55E+05	3.21E+05		9.40E+09	1.26E+09	3.30E+06	2.24E+06	2.36E+06	2.72E+06	3.96E+06	7.50E+06	1.97E+07
PO-212	2.57E+10	1.90E+10	1.55E+10	6.86E+06	2.93E+07	2.21E+08	1.66E+09	1.44E+10	7.77E+10	2.97E+11	6.34B+11	7.19E+11
PO-213	1.20E+06	2.51E+06	3.57E+06		2.33E+07 2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PO-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08 3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
PO-215	9.23E+07	1.16E+08	1.32E+08	1.73E+08		5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
PO-216	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09 2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PO-218	4.77E+06	1.24E+07	1.94E+07	4.36E+07 3.97E+02	7.69E+02	2.06E+03	5.64E+03	1.71E+04	4.22E+04	8.01E+04	9.15E+04	9.16E+04
AT-215	2.12E+02	2.67E+02	3.04E+02	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
AT-217	1.22E+06	2.56E+06	3.64E+06	8.73E+03	4.65E+04	3.81E+05	2.49E+06	1.39E+07	4.54E+07	1.20E+08	1.88E+08	2.00E+08
AT-218	9.55E+02	2.48E+03	3.88E+03		2.77E+02	7.41E+02	2.43E+00 2.03E+03	6.16E+03	1.52E+04	2.89E+04	3.29E+04	3.30E+04
AT-219	7.65E+01	9.63E+01	1.10E+02	1.43E+02 8.41E+02	3.59E+03	2.71E+04	2.04E+05	1.76E+06	9.53E+06	3.64E+07	7.77E+07	8.81E+07
RN-217	1.47E+02	3.07E+02	4.37E+02	8.73E+00	4.65E+01	3.81E+02	2.49E+03	1.39E+04	4.54E+04	1.20E+05	1.88E+05	2.00E+05
RN-218	9.55E-01	2.48E+00	3.88E+00 1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
RN-219	9.23E+07	1.16E+08				5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
RN-220	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
RN-222	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08		1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
FR-221	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	3.39E+07	1.47E+10	2.53E+08	4.81E+08	5.49E+08	5.50E+08
FR-223	1.28E+06	1.61E+06	1.83E+06	2.38E+06	4.61E+06	1.23E+07 8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
RA-223	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
RA-224	4.01E+10	2.97E+10	2.43E+10	1.47E+10 7.01E+06	1.97E+09 2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
RA-225	1.22E+06	2.56E+06	3.64E+06			1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
RA-226	4.78E+06	1.24E+07	1.94E+07	4.37E+07	2.33E+08	3.43E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
RA-228	3.39E+06	3.41E+06	3.41E+06	3.41E+06	3.41E+06	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
AC-225	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
AC-227	9.24E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08			3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
AC-228	3.39E+06	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.43E+06	3.49E+06	7.34E+09	1.81E+10	3.44E+10	3.92E+10	3.93E+10
TH-227	9.11E+07	1.15E+08	1.31E+08	1.70E+08	3.30E+08	8.82E+08	2.42E+09		4.24E+06	6.18E+06	1.17E+07	3.93E+10 3.08E+07
TH-228	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	7.94E+10	3.03E+11	6.47E+11	7.34E+11
TH-229	1.23E+06	2.57E+06	3.65E+06	7.02E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10				1.00E+12
TH-230	4.56E+08	7.33E+08	9.18E+08	1.38E+09	3.23E+09	9.69B+09	2.79E+10	8.91E+10	2.44E+11	6.07E+11	9.43E+11	1.00512

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a	
TH-231	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.82E+10	3.83E+10	3.86E+10	3.91E+10	3.98E+10	3.99E+10	3.98E+10	
TH-232	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.43E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07	
TH-234	1.00E+12												
PA-231	1.17E+08	1.42E+08	1.58E+08	1.98E+08	3.60E+08	9.20E+08	2.48E+09	7.46E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10	
PA-233	9.33E+11	9.33E+11	9.34E+11	9.36E+11	9.41E+11	9.49E+11	9.53E+11	9.51E+11	9.45E+11	9.23E+11	8.66E+11	6.90E+11	
PA-234	1.60E+09												
PA-234M	1.00E+12												
U-232	3.90E+10	2.89E+10	2.36E+10	1.43E+10	1.91E+09	1.67E+06	3.05E-03	0.	0.	0.	0.	0.	
U-233	4.13E+08	5.35E+08	6.17E+08	8.21E+08	1.64E+09	4.53E+09	1.28E+10	4.11E+10	1.17E+11	3.32E+11	6.57E+11	7.32E+11	
U-234	1.01E+12	1.00E+12											
U-235	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.82E+10	3.83E+10	3.86E+10	3.91E+10	3.98E+10	3.99E+10	3.98E+10	
U-236	5.61E+11	5.60E+11	5.59E+11	5.56E+11	5.45E+11								
U-237	4.29E+09	1.01E+09	3.86E+08	3.48E+07	4.45E+03	2.03E+03	1.73E+03	9.75E+02	1.91E+02	6.33E-01	0.	0.	
U-238	1.00E+12												
U-240	1.81E+04	1.80E+04	1.79E+04										
NP-237	9.33E+11	9.33E+11	9.34E+11	9.36E+11	9.41E+11	9.49E+11	9.53E+11	9.51E+11	9.45E+11	9.23E+11	8.66E+11	6.90E+11	
NP-238	7.08E+09	6.11E+09	5.54E+09	4.33E+09	1.62E+09	5.19E+07	2.79E+03	0.	0.	0.	0.	0.	
NP-239	2.28E+09	2.27E+09	2.27E+09	2.26E+09	2.22E+09	2.07E+09	1.72E+09	8.90E+08	1.36E+08	1.88E+05	7.44E+01	7.21E+01	
NP-240	1.99E+01	1.98E+01	1.97E+01										
NP-240M	1.81E+04	1.80E+04	1.79E+04										
PU-238	9.23E+12	7.53E+12	6.58E+12	4.72E+12	1.32E+12	2.70E+10	1.34E+06	0.	0.	0.	0.	0.	
PU-239	5.12E+13	5.12E+13	5.11E+13	5.11E+13	5.08E+13	4.98E+13	4.70E+13	3.84E+13	2.16E+13	2.89E+12	9.20E+09	8.90E+01	
PU-240	6.05E+11	6.03E+11	6.02E+11	5.99E+11	5.86E+11	5.44E+11	4.40E+11	2.10E+11	2.51E+10	1.50E+07	1.80E+04	1.79E+04	
PU-241	1.75E+14	4.12E+13	1.57E+13	1.42E+12	1.81E+08	8.29E+07	7.04E+07	3.98E+07	7.79E+06	2.59E+04	2.14E-03	0.	
PU-242	8.44E+11	8.44E+11	8.44E+11	8.44E+11	8.44E+11	8.43E+11	8.40E+11	8.29E+11	7.99E+11	7.02E+11	4.86E+11	1.34E+11	
PU-243	7.54E+01	7.53E+01	7.53E+01	7.50E+01	7.44E+01	7.21E+01							
PU-244	1.81E+04	1.79E+04											
AM-241	1.00E+14	9.97E+13	9.74E+13	9.04E+13	6.56E+13	2.13E+13	8.64E+11	5.34E+07	8.21E+06	2.72E+04	2.25E-03	0.	
AM-242	1.54E+12	1.33E+12	1.20E+12	9.40E+11	3.52E+11	1.13E+10	6.05E+05	0.	0.	0.	0.	0.	
AM-242M	1.54E+12	1.33E+12	1.21E+12	9.44E+11	3.53E+11	1.13E+10	6.07E+05	0.	0.	0.	0.	0.	
AM-243	2.28E+09	2.27E+09	2.27E+09	2.26E+09	2.22E+09	2.07E+09	1.72E+09	8.90E+08	1.36E+08	1.88E+05	7.44E+01	7.21E+01	
CM-242	1.27E+12	1.10E+12	9.97E+11	7.80E+11	2.92E+11	9.34E+09	5.02E+05	0.	0.	0.	0.	0.	
CM-243	3.02E+11	1.46E+11	8.95E+10	2.65E+10	2.05E+08	8.27E+00	0.	0.	0.	0.	0.	0.	
CM-244	1.47E+11	4.66E+10	2.17E+10	3.20E+09	1.51E+06	3.50E-06	0.	0.	0.	0.	0.	0.	
CM-245	8.98E+07	8.96E+07	8.94E+07	8.91E+07	8.76E+07	8.28E+07	7.03E+07	3.97E+07	7.78E+06	2.58E+04	2.13E-03	0.	
CM-246	1.62E+07	1.61E+07	1.60E+07	1.59E+07	1.55E+07	1.40E+07	1.05E+07	3.79E+06	2.09E+05	8.14E+00	0.	0.	
CM-247	7.54E+01	7.53E+01	7.53E+01	7.50E+01	7.44E+01	7.21E+01							

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CM-248	4.77E+02	4.77E+02	4.77E+02	4.77E+02	4.76E+02	4.76E+02	4.74E+02	4.67E+02	4.48E+02	3.89E+02	2.58E+02	6.17E+01
Summe	2.14E+17	1.48E+17	1.23E+17	8.20E+16	1.98E+16	1.74E+15	1.36E+15	8.54E+14	4.34E+14	2.13E+14	6.22E+13	2.48E+13

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie Stilllegung (S)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	3.33E-03											
SM-148	1.89E-14	4.24E-14	5.89E-14	1.01E-13	2.69E-13	8.59E-13	2.54E-12	8.44E-12	2.53E-11	8.42E-11	2.53E-10	8.42E-10
GD-152	7.35E+00	8.26E+00	8.42E+00	8.50E+00								
BI-210	2.23E+00	7.82E+00	1.38E+01	3.74E+01	2.52E+02	2.34E+03	1.59E+04	8.99E+04	2.95E+05	7.77E+05	1.22E+06	1.30E+06
BI-211	9.21E+07	1.16E+08	1.32E+08	1.72E+08	3.33E+08	8.92E+08	2.45E+09	7.42E+09	1.83E+10	3.47E+10	3.97E+10	3.97E+10
BI-212	1.44E+10	1.07E+10	8.72E+09	5.28E+09	7.07E+08	1.85E+06	1.25E+06	1.32E+06	1.52E+06	2.22E+06	4.21E+06	1.11E+07
BI-213	2.56E+04	5.35E+04	7.61E+04	1.47E+05	6.25E+05	4.73E+06	3.55E+07	3.07E+08	1.66E+09	6.34E+09	1.35E+10	1.53E+10
BI-214	1.00E+03	2.60E+03	4.08E+03	9.17E+03	4.88E+04	4.00E+05	2.62E+06	1.46E+07	4.77E+07	1.26E+08	1.98E+08	2.10E+08
PO-210	1.67E+06	5.91E+06	1.05E+07	2.85E+07	1.93E+08	1.80E+09	1.22E+10	6.91E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PO-211	2.55E+05	3.21E+05	3.65E+05	4.77E+05	9.22E+05	2.47E+06	6.77E+06	2.05E+07	5.07E+07	9.62E+07	1.10E+08	1.10E+08
PO-212	2.57E+10	1.90E+10	1.55E+10	9.40E+09	1.26E+09	3.30E+06	2.24E+06	2.36E+06	2.72E+06	3.96E+06	7.50E+06	1.97E+07
PO-213	1.20E+06	2.51E+06	3.57E+06	6.86E+06	2.93E+07	2.21E+08	1.66E+09	1.44E+10	7.77B+10	2.97E+11	6.34E+11	7.19E+11
PO-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PO-215	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
PO-216	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
PO-218	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
AT-215	2.12E+02	2.67E+02	3.04E+02	3.97E+02	7.69E+02	2.06E+03	5.64E+03	1.71E+04	4.22E+04	8.01E+04	9.15E+04	9.16E+04
AT-217	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
AT-218	9.54E+02	2.48E+03	3.88E+03	8.72E+03	4.65E+04	3.81E+05	2.49E+06	1.39E+07	4.54E+07	1.19E+08	1.88E+08	2.00E+08
AT-219	7.42E+01	9.34E+01	1.06E+02	1.39E+02	2.69E+02	7.19E+02	1.97E+03	5.98E+03	1.47E+04	2.80E+04	3.20E+04	3.20E+04
RN-217	1.47E+02	3.07E+02	4.37E+02	8.41E+02	3.59E+03	2.71E+04	2.04E+05	1.76E+06	9.53E+06	3.64E+07	7.77E+07	8.81E+07
RN-218	9.55E-01	2.48E+00	3.88E+00	8.73E+00	4.65E+01	3.81E+02	2.49E+03	1.39E+04	4.54E+04	1.20E+05	1.88E+05	2.00E+05
RN-219	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
RN-220	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
RN-222	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
FR-221	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
FR-223	7.65E+01	9.63E+01	1.10E+02	1.43E+02	2.77E+02	7.41E+02	2.03E+03	6.16E+03	1.52E+04	2.89E+04	3.29E+04	3.30E+04
RA-223	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
RA-224	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
RA-226	4.78E+06	1.24E+07	1.94E+07	4.37E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
AC-225	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AC-227	1.28E+06	1.61E+06	1.83E+06	2.38E+06	4.61E+06	1.23E+07	3.39E+07	1.03E+08	2.53E+08	4.81E+08	5.49E+08	5.50E+08
TH-227	9.11E+07	1.15E+08	1.31E+08	1.70E+08	3.30E+08	8.82E+08	2.42E+09	7.34E+09	1.81E+10	3.44E+10	3.92E+10	3.93E+10
TH-228	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
TH-229	1.23E+06	2.57E+06	3.65E+06	7.02E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
TH-230	4.56E+08	7.33E+08	9.18E+08	1.38E+09	3.23E+09	9.69E+09	2.79E+10	8.91E+10	2.44E+11	6.07E+11	9.43E+11	1.00E+12
TH-232	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.43E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
PA-231	1.17E+08	1.42E+08	1.58E+08	1.98E+08	3.60E+08	9.20E+08	2.48E+09	7.46E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
U-232	3.90E+10	2.89E+10	2.36E+10	1.43E+10	1.91E+09	1.67E+06	3.05E-03	0.	0.	0.	0.	0.
U-233	4.13E+08	5.35E+08	6.17E+08	8.21E+08	1.64E+09	4.53E+09	1.28E+10	4.11E+10	1.17E+11	3.32E+11	6.57E+11	7.32E+11
U-234	1.01E+12	1.00E+12										
U-235	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.82E+10	3.83E+10	3.86E+10	3.91E+10	3.98E+10	3.99E+10	3.98E+10
U-236	5.61E+11	5.60E+11	5.59E+11	5.56E+11	5.45E+11							
U-238	1.00E+12											
NP-237	9.33E+11	9.33E+11	9.34E+11	9.36E+11	9.41E+11	9.49E+11	9.53E+11	9.51E+11	9.45E+11	9.23E+11	8.66E+11	6.90E+11
PU-238	9.23E+12	7.53E+12	6.58E+12	4.72E+12	1.32E+12	2.70E+10	1.34E+06	0.	0.	0.	0.	0.
PU-239	5.12E+13	5.12E+13	5.11E+13	5.11E+13	5.08E+13	4.98E+13	4.70E+13	3.84E+13	2.16E+13	2.89E+12	9.20E+09	8.90E+01
PU-240	6.05E+11	6.03E+11	6.02E+11	5.99E+11	5.86E+11	5.44E+11	4.40E+11	2.10E+11	2.51E+10	1.50E+07	1.80E+04	1.79E+04
PU-241	4.28E+09	1.01E+09	3.86E+08	3.48E+07	4.44E+03	2.03E+03	1.73E+03	9.75E+02	1.91E+02	6.33E-01	5.23E-08	0.
PU-242	8.44E+11	8.44E+11	8.44E+11	8.44E+11	8.44E+11	8.43E+11	8.40E+11	8.29E+11	7.99E+11	7.02E+11	4.86E+11	1.34E+11
PU-244	1.81E+04	1.80E+04	1.79E+04									
AM-241	1.00E+14	9.97E+13	9.74E+13	9.04E+13	6.56E+13	2.13E+13	8.64E+11	5.34E+07	8.21E+06	2.72E+04	2.25E-03	0.
AM-242M	7.08E+09	6.11E+09	5.54E+09	4.33E+09	1.62E+09	5.19E+07	2.79E+03	0.	0.	0.	0.	0.
AM-243	2.28E+09	2.27E+09	2.27E+09	2.26E+09	2.22E+09	2.07E+09	1.72E+09	8.90E+08	1.36E+08	1.88E+05	7.44E+01	7.21E+01
CM-242	1.27E+12	1.10E+12	9.97E+11	7.80E+11	2.92E+11	9.34E+09	5.02E+05	0.	0.	0.	0.	0.
CM-243	3.01E+11	1.45E+11	8.93E+10	2.65E+10	2.04E+08	8.25E+00	0.	0.	0.	0.	0.	0.
CM-244	1.47E+11	4.66E+10	2.17E+10	3.20E+09	1.51E+06	3.50E-06	0.	0.	0.	0.	0.	0.
CM-245	8.98E+07	8.96E+07	8.94E+07	8.91E+07	8.76E+07	8.28E+07	7.03E+07	3.97E+07	7.78E+06	2.58E+04	2.13E-03	0.
CM-246	1.62E+07	1.61E+07	1.60E+07	1.59E+07	1.55E+07	1.40E+07	1.05E+07	3.79E+06	2.08E+05	8.14E+00	0.	0.
CM-247	7.54E+01	7.53E+01	7.53E+01	7.50E+01	7.44E+01	7.21E+01						
CM-248	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.36E+02	4.35E+02	4.29E+02	4.11E+02	3.57E+02	2.37E+02	5.66E+01
Summe	1.68E+14	1.65E+14	1.61E+14	1.52E+14	1.23E+14	7.61E+13	5.28E+13	4.36E+13	2.80E+13	1.28E+13	1.37E+13	1.41E+13

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie Stilllegung (S)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	4.28E+14	7.95E+13	2.59E+13	1.56E+12	2.08E+07	0.	0.	0.	0.	0.	0.	0.
BE-10	2.80E+03	2.79E+03	2.76E+03	2.68E+03	2.46E+03	1.82E+03						
C-14	1.17E+15	1.16E+15	1.16E+15	1.15E+15	1.13E+15	1.03E+15	8.12E+14	3.48E+14	3.10E+13	6.51E+09	2.03E-01	0.
NA-22	6.54E+03	2.21E+00	1.07E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	2.50E+11	2.50E+11	2.50E+11	2.50E+11	2.50E+11	2.49E+11	2.48E+11	2.44E+11	2.33E+11	1.98E+11	1.25E+11	2.50E+10
AR-39	3.17E+11	2.94E+11	2.79E+11	2.45E+11	1.46E+11	2.41E+10	1.39E+08	2.04E+00	0.	0.	0.	0.
K-40	1.28E+08											
CA-41	8.58E+10	8.58E+10	8.57E+10	8.57E+10	8.56E+10	8.52E+10	8.40E+10	8.01E+10	7.00E+10	4.35B+10	1.12E+10	9.60E+07
CA-45	5.08E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	9.97E+09	2.78E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	8.19E+13	3.70E+10	2.18E+08	5.81E+02	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	5.02E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	1.67E+16	3.23E+14	2.33E+13	3.24E+10	1.23E-01	0.	0.	0.	0.	0.	0.	0.
NI-59	4.17E+14	4.17E+14	4.17E+14	4.17E+14	4.16E+14	4.13E+14	4.06E+14	3.80E+14	3.16E+14	1.66E+14	2.61E+13	4.04E+10
NI-63	1.57E+17	1.27E+17	1.10E+17	7.64E+16	1.80E+16	1.15E+14	6.16E+07	0.	0.	0.	0.	0.
ZN-65	1.03E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.46E+11	1.44E+11	1.37E+11	1.16E+11	7.28E+10	1.41E+10
RB-87	6.67E+06											
SR-90	1.42E+14	6.95E+13	4.32E+13	1.31E+13	1.12E+11	1.03E+04	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
Y-90	1.42E+14	6.95E+13	4.32E+13	1.31E+13	1.13E+11	1.03E+04	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
ZR-93	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.69E+10	6.67E+10	6.61E+10	6.40E+10	5.85E+10	4.26E+10
NB-93M	1.56E+11	1.76E+11	1.80E+11	1.81E+11	1.77E+11	1.62E+11	1.30E+11	8.00E+10	6.31E+10	6.08E+10	5.56E+10	4.05E+10
NB-94	6.08E+13	6.08E+13	6.07E+13	6.06E+13	6.02E+13	5.88E+13	5.49E+13	4.32E+13	2.18E+13	2.00E+12	2.16E+09	9.01E-02
MO-93	1.36E+11	1.35E+11	1.35E+11	1.34E+11	1.28E+11	1.12E+11	7.52E+10	1.88E+10	3.58E+08	3.41E+02	0.	0.
TC-99	3.44E+13	3.44E+13	3.44E+13	3.44E+13	3.44E+13	3.43E+13	3.41E+13	3.33E+13	3.12E+13	2.49E+13	1.30E+13	1.33E+12
RU-106	8.60E+09	9.46E+00	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	8.60E+09	9.46E+00	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	3.81E+07	3.81E+07	3.81E+07	3.81E+07	3.81E+07	3.80E+07	3.80E+07	3.80E+07	3.79E+07	3.77E+07	3.69E+07	3.42E+07
AG-108	3.81E+11	3.23E+11	2.90E+11	2.21E+11	7.41E+10	1.62E+09	2.95E+04	0.	0.	0.	0.	0.
AG-108M	4.38E+12	3.72E+12	3.33E+12	2.54E+12	8.52E+11	1.87E+10	3.39E+05	0.	0.	0.	0.	0.
AG-109M	3.79E+05	2.95E-02	5.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AG-110	5.42E+06	3.42E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	3.99E+08	2.52E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	3.79E+05	2.95E-02	5.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	2.65E-07	3.33E-07	3.45E-07	3.51E-07	3.52E-07							
CD-113M	4.27E+10	9.26E+09	3.34E+09	2.61E+08	9.78E+03	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.86E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	1.87E+11	1.86E+11	1.86E+11	1.86E+11	1.86E+11	1.85E+11	1.83E+11	1.74E+11	1.51E+11	9.33E+10	2.33E+10	1.82E+08
SB-125	3.00E+13	1.65E+10	1.11E+08	4.08E+02	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	2.61E+10	2.61E+10	2.61E+10	2.61E+10	2.61E+10	2.59E+10	2.56E+10	2.44E+10	2.12E+10	1.31E+10	3.26E+09	2.55E+07
SB-126M	1.87E+11	1.86E+11	1.86E+11	1.86E+11	1.86E+11	1.85E+11	1.83E+11	1.74E+11	1.51E+11	9.33E+10	2.33E+10	1.82E+08
TE-125M	7.33E+12	4.03E+09	2.70E+07	9.95E+01	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.41E+09	1.40E+09	1.39E+09	1.35E+09								
CS-134	3.01E+12	1.25E+08	1.51E+05	7.57E-03	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	2.95E+11	2.94E+11	2.92E+11	2.86E+11	2.69E+11	2.18E+11						
CS-137	1.92E+16	9.59E+15	6.04E+15	1.90E+15	1.87E+13	1.78E+06	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
BA-133	1.93E+08	2.78E+07	7.66E+06	3.04E+05	7.53E-01	0.	0.	0.	0.	0.	0.	0.
BA-137M	1.81E+16	9.06E+15	5.71E+15	1.80E+15	1.77E+13	1.68E+06	2.67E+03	1.00E+03	1.08E+02	5.10E+01	4.08E+01	2.53E+01
CE-144	2.63E+08	6.58E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	2.63E+08	6.58E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.16E+06	7.89E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-151	2.13E+13	1.69E+13	1.45E+13	9.86E+12	2.11E+12	9.63E+09	1.97E+03	0.	0.	0.	0.	0.
EU-152	3.29E+13	7.05E+12	2.53E+12	1.94E+11	6.73E+06	0.	0.	0.	0.	0.	0.	0.
EU-154	1.53E+13	1.36E+12	2.70E+11	4.78E+09	4.68E+02	0.	0.	0.	0.	0.	0.	0.
EU-155	6.44E+11	8.16E+09	4.44E+08	3.05E+05	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	2.23E+00	7.82E+00	1.38E+01	3.74E+01	2.52E+02	2.34E+03	1.59E+04	8.99E+04	2.95E+05	7.77E+05	1.22E+06	1.30E+06
TL-207	9.21E+07	1.16E+08	1.32E+08	1.72E+08	3.33E+08	8.92E+08	2.45E+09	7.42E+09	1.83E+10	3.47E+10	3.97E+10	3.97E+10
TL-208	1.44E+10	1.07E+10	8.72E+09	5.28E+09	7.07E+08	1.85E+06	1.25E+06	1.32E+06	1.52E+06	2.22E+06	4.21E+06	1.11E+07
TL-209	2.56E+04	5.35E+04	7.61E+04	1.47E+05	6.25E+05	4.73E+06	3.55E+07	3.07E+08	1.66E+09	6.34E+09	1.35E+10	1.53E+10
TL-210	1.00E+03	2.60E+03	4.08E+03	9.17E+03	4.88E+04	4.00E+05	2.62E+06	1.46E+07	4.77E+07	1.26E+08	1.98E+08	2.10E+08
PB-209	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
PB-210	1.72E+06	6.02E+06	1.07E+07	2.88E+07	1.94E+08	1.80E+09	1.23E+10	6.92E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
PB-211	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10
PB-212	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
PB-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
BI-210	1.72E+06	6.02E+06	1.07E+07	2.88E+07	1.94E+08	1.80E+09	1.23E+10	6.92E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
BI-211	2.55E+05	3.21E+05	3.65E+05	4.77E+05	9.22E+05	2.47E+06	6.77E+06	2.05E+07	5.07E+07	9.62E+07	1.10E+08	1.10E+08
BI-212	2.57E+10	1.90E+10	1.55E+10	9.40E+09	1.26E+09	3.30E+06	2.24E+06	2.36E+06	2.72E+06	3.96E+06	7.50E+06	1.97E+07

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	l Mio a
BI-213	1.20E+06	2.51E+06	3.57E+06	6.86E+06	2.93E+07	2.21E+08	1.66E+09	1.44E+10	7 778.10	0.077.11	6 04F-11	7 107 11
BI-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	7.77E+10	2.97E+11	6.34E+11	7.19E+11
BI-215	7.42E+01	9.34E+01	1.06E+02	1.39E+02	2.69E+02	7.19E+02	1.25E+10 1.97E+03		2.27E+11	5.98E+11	9.41E+11	1.00E+12
PO-215	2.12E+02	2.67E+02	3.04E+02	3.97E+02	7.69E+02	2.06E+03		5.98E+03	1.47E+04	2.80E+04	3.20E+04	3.20E+04
PO-218	9.55E+02	2.48E+03	3.88E+03	8.73E+03			5.64E+03	1.71E+04	4.22E+04	8.01E+04	9.15E+04	9.16E+04
AT-217	1.47E+02	3.07E+02	4.37E+02		4.65E+04	3.81E+05	2.49E+06	1.39E+07	4.54E+07	1.20E+08	1.88E+08	2.00E+08
AT-217	9.55E-01	2.48E+00	3.88E+00	8.41E+02	3.59E+03	2.71E+04	2.04E+05	1.76E+06	9.53E+06	3.64E+07	7.77E+07	8.81E+07
AT-219	2.30E+00	2.40E+00 2.89E+00		8.73E+00	4.65E+01	3.81E+02	2.49E+03	1.39E+04	4.54E+04	1.20E+05	1.88E+05	2.00E+05
FR-223			3.29E+00	4.29E+00	8.30E+00	2.22E+01	6.09E+01	1.85E+02	4.56E+02	8.66E+02	9.88E+02	9.90E+02
RA-225	1.28E+06	1.61E+06	1.83E+06	2.38E+06	4.61E+06	1.23E+07	3.39E+07	1.03E+08	2.53E+08	4.81E+08	5.49E+08	5.50E+08
RA-228	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11
	3.39E+06	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.43E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
AC-227	9.12E+07	1.15E+08	1.31E+08	1.70E+08	3.30E+08	8.82E+08	2.42E+09	7.34E+09	1.81E+10	3.44E+10	3.92E+10	3.93E+10
AC-228	3.39E+06	3.41E+06	3.41E+06	3.41E+06	3.41E+06	3.43E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
TH-231	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.81E+10	3.82E+10	3.83E+10	3.86E+10	3.91E+10	3.98E+10	3.99E+10	3.98E+10
TH-234	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12
PA-233	9.33E+11	9.33E+11	9.34E+11	9.36E+11	9.41E+11	9.49E+11	9.53E+11	9.51E+11	9.45E+11	9.23E+11	8.66E+11	6.90E+11
PA-234	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09
PA-234M	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12	1.00E+12
U-237	4.29E+09	1.01E+09	3.86E+08	3.48E+07	4.45E+03	2.03E+03	1.73E+03	9.75E+02	1.91E+02	6.33E-01	0.	0.
U-240	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.80E+04	1.79E+04
NP-238	7.08E+09	6.11E+09	5.54E+09	4.33E+09	1.62E+09	5.19E+07	2.79E+03	0.	0.	0.	0.	0.
NP-239	2.28E+09	2.27E+09	2.27E+09	2.26E+09	2.22E+09	2.07E+09	1.72E+09	8.90E+08	1.36E+08	1.88E+05	7.44E+01	7.21E+01
NP-240	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.98E+01	1.97E+01
NP-240M	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.81E+04	1.80E+04	1.79E+04
PU-241	1.75E+14	4.12E+13	1.57E+13	1.42E+12	1.81E+08	8.29E+07	7.04E+07	3.98E+07	7.79E+06	2.59E+04	2.14E-03	0.
PU-243	7.54E+01	7.54E+01	7.54E+01	7.54E+01	7.54E+01	7.54E+01	7.54E+01	7.53E+01	7.53E+01	7.50E+01	7.44E+01	7.21E+01
PU-244	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.18E+01	2.17E+01
AM-242	1.54E+12	1.33E+12	1.20E+12	9.40E+11	3.52E+11	1.13E+10	6.05E+05	0.	0.	0.	0.	0.
AM-242M	1.54E+12	1.33E+12	1.20E+12	9.40E+11	3.52E+11	1.13E+10	6.05E+05	0.	0.	0.	0.	0.
CM-243	8.76E+08	4.22E+08	2.60E+08	7.70E+07	5.94E+05	2.40E-02	0.	0.	0.	0.	0.	0.
CM-246	4.25E+03	4.23E+03	4.22E+03	4.19E+03	4.07E+03	3.68E+03	2.75E+03	9.97E+02	5.48E+01	2.14E-03	0.	0.
CM-248	3.94E+01	3.94E+01	3.94E+01	3.94E+01	3.94E+01	3.93E+01	3.91E+01	3.86E+01	3.70E+01	3.21E+01	2.13E+01	5.10E+00
Summe	2.14E+17	1.48E+17	1.23E+17	8.18E+16	1.97E+16	1.66E+15	1.31E+15	8.10E+14	4.06E+14	2.00E+14	4.84E+13	1.08E+13

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie Stilllegung (S)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a	
TL-206	2.23E+00	7.82E+00	1.38E+01	3.74E+01	2.52E+02	2.34E+03	1.59E+04	8.99E+04	2.95E+05	7.77E+05	1.22E+06	1.30E+06	
TL-207	9.21E+07	1.16E+08	1.32E+08	1.72E+08	3.33E+08	8.92E+08	2.45E+09	7.42E+09	1.83E+10	3.47E+10	3.97E+10	3.97E+10	
TL-208	1.44E+10	1.07E+10	8.72E+09	5.28E+09	7.07E+08	1.85E+06	1.25E+06	1.32E+06	1.52E+06	2.22E+06	4.21E+06	1.11E+07	
TL-209	2.56E+04	5.35E+04	7.61E+04	1.47E+05	6.25E+05	4.73E+06	3.55E+07	3.07E+08	1.66E+09	6.34E+09	1.35E+10	1.53E+10	
TL-210	1.00E+03	2.60E+03	4.08E+03	9.17E+03	4.88E+04	4.00E+05	2.62E+06	1.46E+07	4.77E+07	1.26E+08	1.98E+08	2.10E+08	
PB-209	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11	
PB-210	1.72E+06	6.02E+06	1.07E+07	2.88E+07	1.94E+08	1.80E+09	1.23E+10	6.92E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
PB-211	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10	
PB-212	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07	
PB-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
BI-210	1.72E+06	6.02E+06	1.07E+07	2.88E+07	1.94E+08	1.80E+09	1.23E+10	6.92E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
BI-211	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10	
BI-212	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07	
BI-213	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11	
BI-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
BI-215	7.42E+01	9.34E+01	1.06E+02	1.39E+02	2.69E+02	7.19E+02	1.97E+03	5.98E+03	1.47E+04	2.80E+04	3.20E+04	3.20E+04	
PO-210	1.67E+06	5.91E+06	1.05E+07	2.85E+07	1.93E+08	1.80E+09	1.22E+10	6.91E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
PO-211	2.55E+05	3.21E+05	3.65E+05	4.77E+05	9.22E+05	2.47E+06	6.77E+06	2.05E+07	5.07E+07	9.62E+07	1.10E+08	1.10E+08	
PO-212	2.57E+10	1.90E+10	1.55E+10	9.40E+09	1.26E+09	3.30E+06	2.24E+06	2.36E+06	2.72E+06	3.96E+06	7.50E+06	1.97E+07	
PO-213	1.20E+06	2.51E+06	3.57E+06	6.86E+06	2.93E+07	2.21E+08	1.66E+09	1.44E+10	7.77E+10	2.97E+11	6.34E+11	7.19E+11	
PO-214	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
PO-215	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10	
PO-216	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07	
PO-218	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12	
AT-215	2.12E+02	2.67E+02	3.04E+02	3.97E+02	7.69E+02	2.06E+03	5.64E+03	1.71E+04	4.22E+04	8.01E+04	9.15E+04	9.16E+04	
AT-217	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07	2.26E+08	1.70E+09	1.47E+10	7.94E+10	3.03E+11	6.47E+11	7.34E+11	
AT-218	9.55E+02	2.48E+03	3.88E+03	8.73E+03	4.65E+04	3.81E+05	2.49E+06	1.39E+07	4.54E+07	1.20E+08	1.88E+08	2.00E+08	
AT-219	7.65E+01	9.63E+01	1.10E+02	1.43E+02	2.77E+02	7.41E+02	2.03E+03	6.16E+03	1.52E+04	2.89E+04	3.29E+04	3.30E+04	
RN-217	1.47E+02	3.07E+02	4.37E+02	8.41E+02	3.59E+03	2.71E+04	2.04E+05	1.76E+06	9.53E+06	3.64E+07	7.77E+07	8.81E+07	
RN-218	9.55E-01	2.48E+00	3.88E+00	8.73E+00	4.65E+01	3.81E+02	2.49E+03	1.39E+04	4.54E+04	1.20E+05	1.88E+05	2.00E+05	
RN-219	9.23E+07	1.16E+08	1.32E+08	1.73E+08	3.34E+08	8.95E+08	2.45E+09	7.44E+09	1.84E+10	3.48E+10	3.98E+10	3.98E+10	

Number N	Nuklid	1 1 2020	20 -	E0 -	100 -	200 -	11000 -	21000 -	101000 -	201000 -	1001000	2001000-	1 Min -
New No. New	NUKIIG	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10,000 a	30'000 a	100'000a	300'000a	1 Mio a
NP-222	RN-220	4.01E+10	2.97E+10	2.43E+10	1.47E+10	1.97E+09	5.15E+06	3.49E+06	3.68E+06	4.24E+06	6.18E+06	1.17E+07	3.08E+07
RR-223	RN-222	4.77E+06	1.24E+07	1.94E+07	4.36E+07	2.33E+08	1.91E+09	1.25E+10	6.94E+10	2.27E+11	5.98E+11	9.41E+11	1.00E+12
RA-223 9.28E-06 1.61E+06 1.83E+06 1.83E+06 1.33E+08 3.34E+08 3.39E+07 3.39E+07 7.03E+08 3.48E+09 7.44E+09 7.44E+10	FR-221	1.22E+06	2.56E+06	3.64E+06	7.01E+06	2.99E+07		1.70E+09	1.47E+10				
RA-223 9.28H-07 1.16E-08 1.28E-08 1.73E-08 3.34E-08 8.95E-08 2.45E-09 7.44E-09 1.48E-10 3.48E-10 3.98E-10 3.08E-10 7.84E-11 7.34E-11	FR-223	1.28E+06	1.61E+06										
RA-224 4.01E+10 2.97E+10 2.43E+10 1.47E+10 2.97E+07 2.26E+08 1.70E+09 3.68E+06 4.24E+06 6.18E+06 1.77E+07 3.08E+07 RA-225 1.22E+06 1.24E+07 1.94E+07 3.47E+07 2.32E+08 1.70E+09 1.47E+10 7.94E+10 3.03E+17 7.34E+11 7.	RA-223	9.23B+07	1.16E+08										
RA-225													
RR-226 4.78E+06 1.24E+07 1.94E+07 4.37E+07 2.33E+08 1.91E+09 1.25E+10 6.94E+10 2.27E+11 5.98E+11 1.00E+12 RR-228 3.99F+06 3.41E+06 4.99E+07 1.26E+08 1.70E+09 1.47E+10 7.94E+10 3.03E+10 1.78E+11 7.34E+11 AC-227 9.24E+07 1.16E+08 1.32E+08 1.33E+08 1.33E+08 3.34E+08 3.43E+06													
RA-228 3.39E+06 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.43E+06 3.43E+06 3.43E+06 3.48E+06 3.68E+06 1.77E+07 3.08E+07 AC-225 1.22E+06 1.22E+06 1.32E+06 3.34E+06 3.34E+06 3.34E+06 3.48E+06 3.48E+06 3.48E+07 3.													
AC-225 1.22E+06 2.56E+06 3.64E+06 7.01E+06 2.99E+07 2.26E+08 1.70E+09 1.47E+10 7.94E+10 3.03E+11 6.47E+11 7.34E+11 AC-227 9.24E+07 1.16E+08 1.32E+08 3.41E+08 3.41E+08 3.43E+08 3.45E+09 7.44E+09 7.44E+09 1.84E+10 3.48E+10 3.98E+10 3.													
AC-227 9.24E+07 1.16E+08 1.32E+08 1.73E+08 3.34E+08 8.95E+08 2.45E+09 7.44E+09 1.84E+10 3.48E+10 3.98E+10 3.98E+10 AC-228 3.39E+06 3.41E+06 3.41E+06 3.41E+06 3.43E+06 3.49E+06 3.68E+06 4.24E+06 6.18E+06 1.17E+07 3.08E+07 AC-228 9.11E+07 1.15E+08 1.31E+08 1.31E+08 3.30E+08 8.82E+08 2.42E+09 7.34E+09 1.81E+10 3.44E+10 3.92E+10 3.03E+10 AC-228 AC-22E+09 AC-													
Name													
TH-227 9.11E+07 1.15E+08 1.31E+08 1.70E+08 3.30E+08 8.82E+08 2.42E+09 7.34E+09 1.61E+10 3.44E+10 3.92E+10 3.93E+10 TH-228 4.01E+10 2.97E+10 2.43E+10 1.47E+10 1.97E+09 5.15E+06 3.49E+06 3.68E+06 4.24E+06 6.18E+06 1.17E+07 3.08E+07 TH-229 1.23E+06 2.57E+06 3.65E+06 7.02E+06 9.226E+08 1.70E+09 1.47E+10 7.94E+10 3.03E+11 6.47E+11 7.34E+11 TH-231 3.81E+10 3													
TH-228 4.01E+10 2.97E+10 2.43E+10 1.47E+10 1.97E+09 5.15E+06 3.49E+06 3.68E+06 4.24E+06 6.18E+06 1.17E+07 3.08E+07 TH-229 1.23E+06 2.57E+06 3.65E+06 7.02E+06 2.99E+07 2.26E+08 1.70E+09 1.47E±10 7.94E±10 3.03E±11 6.47E±11 7.34E±11 TH-230 4.56E+08 7.33E+08 9.18E+08 1.38E±10 3.23E±10 3.23E±10 3.81E±10 3.41E±06 3.40E±10 3.48E±10 3.98E±10 4.00E±12 1.00E±12													
TH-229 1.23E+06 2.57E+06 3.65E+06 7.02E+06 2.99E+07 2.26E+08 1.70E+09 1.47E+10 7.94E+10 3.03E+11 6.47E+11 7.34E+11 TH-230 4.56E+08 7.33E+08 9.18E+08 1.38E+09 3.23E+09 9.69E+09 2.79E+10 8.91E+10 2.44E+11 6.07E+11 9.43E+11 1.00E+12 TH-231 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.82E+10 3.82E+10 3.83E+10 3.96E+10 3.96E+10 3.99E+10 3.98E+10 TH-232 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.42E+06 4.24E+06 6.42E+06 6.18E+06 1.17E+07 3.08E+07 TH-234 1.00E+12 1.00													
TH-230													
TH-231 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.82E+10 3.82E+10 3.83E+10 3.86E+10 3.91E+10 3.98E+10 3.99E+10 3.99E+10 3.99E+10 TH-232 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.43E+06 3.49E+06 3.68E+06 4.24E+06 6.18E+06 1.17E+07 3.08E+10 TH-234 1.00E+12													
TH-232 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.41E+06 3.43E+06 3.43E+06 3.49E+06 3.68E+06 4.24E+06 6.18E+06 1.17E+07 3.08E+07 TH-234 1.00E+12 1.00E+1	TH-231												
TH-234													
PA-231 1.17E+08 1.42E+08 1.58E+08 1.98E+08 3.60E+08 9.20E+08 2.48E+09 7.46E+09 1.84E+10 3.48E+10 3.98E+10 3.98E+10 PA-233 9.33E+11 9.33E+11 9.34E+11 9.36E+11 9.41E+11 9.49E+11 9.53E+11 9.51E+11 9.51E+11 9.45E+11 9.23E+11 8.66E+11 6.90E+11 PA-234 1.60E+09 1.60E+01 1.80E+04													
PA-233 9.33E+11 9.33E+11 9.34E+11 9.36E+11 9.41E+11 9.49E+11 9.53E+11 9.51E+11 9.45E+11 9.23E+11 8.66E+11 6.90E+11 PA-234 1.60E+09 1.60E+0		1.17E+08											
PA-234	PA-233	9.33E+11	9.33E+11										
PA-234M 1.00E+12 1.00	PA-234	1.60E+09	1.60E+09										
U-232 3.90E+10 2.89E+10 2.36E+10 1.43E+10 1.91E+09 1.67E+06 3.05E-03 0. 0. 0. 0. 0. 0. 0. 0. U-233 4.13E+08 5.35E+08 6.17E+08 8.21E+08 1.64E+09 4.53E+09 1.28E+10 4.11E+10 1.17E+11 3.32E+11 6.57E+11 7.32E+11 U-234 1.01E+12 1.01E+	PA-234M	1.00E+12											
U-233 4.13E+08 5.35E+08 6.17E+08 8.21E+08 1.64E+09 4.53E+09 1.28E+10 4.11E+10 1.17E+11 3.32E+11 6.57E+11 7.32E+11 U-234 1.01E+12 1.00E+12													
U-234 1.01E+12 1.00E+12 U-235 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.82E+10 3.83E+10 3.86E+10 3.91E+10 3.98E+10 3.99E+10 3.99E+10 U-236 5.61E+11 5.61E+11 5.61E+11 5.61E+11 5.61E+11 5.61E+11 5.61E+11 5.60E+11 5.60E+11 5.60E+11 5.56E+11 5.56E+11 5.56E+11 5.45E+11 U-237 4.29E+09 1.01E+09 3.86E+08 3.48E+07 4.45E+03 2.03E+03 1.73E+03 9.75E+02 1.91E+02 6.33E-01 0. 0. U-238 1.00E+12 1.00E+12 1.00E+12 1.00E+12 1.00E+12 1.00E+12 1.00E+12 1.00E+12 U-240 1.81E+04 1.90E+01 1.99E+01 1.99E+04 1.80E+04 1.80E+	U-233	4.13E+08	5.35E+08	6.17E+08	8.21E+08		4.53E+09	1.28E+10	4.11E+10	1.17E+11	3.32E+11		
U-235 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.81E+10 3.82E+10 3.82E+10 3.83E+10 3.96E+10 3.91E+10 3.98E+10 3.99E+10 3.98E+10 U-236 5.61E+11	U-234	1.01E+12	1.01E+12	1.01E+12	1.01E+12								
U-236 5.61E+11 5.60E+11 5.59E+11 5.56E+11 5.45E+11 U-237 4.29E+09 1.01E+09 3.86E+08 3.48E+07 4.45E+03 2.03E+03 1.73E+03 9.75E+02 1.91E+02 6.33E-01 0. 0. U-238 1.00E+12 U-240 1.81E+04	U-235	3.81E+10	3.81E+10										
U-237 4.29E+09 1.01E+09 3.86E+08 3.48E+07 4.45E+03 2.03E+03 1.73E+03 9.75E+02 1.91E+02 6.33E-01 0. 0. U-238 1.00E+12 1.	U-236	5.61E+11											
U-238 1.00E+12 U-240 1.81E+04 1.80E+04 1.79E+04 NP-237 9.33E+11 9.33E+11 9.34E+11 9.36E+11 9.36E+11 9.49E+11 9.53E+11 9.51E+11 9.45E+11 9.23E+11 8.66E+11 6.90E+11 NP-238 7.08E+09 6.11E+09 5.54E+09 4.33E+09 1.62E+09 5.19E+07 2.79E+03 0. 0. 0. 0. 0. 0. 0. NP-239 2.28E+09 2.27E+09 2.27E+09 2.22E+09 2.07E+09 1.72E+09 8.90E+08 1.36E+08 1.88E+05 7.44E+01 7.21E+01 NP-240 1.99E+01 1.99E+04 1.80E+04 1.79E+04	U-237	4.29E+09	1.01E+09										
U-240 1.81E+04 1.80E+04 1.79E+04 NP-237 9.33E+11 9.33E+11 9.34E+11 9.34E+11 9.49E+11 9.53E+11 9.51E+11 9.45E+11 9.23E+11 8.66E+11 6.90E+11 NP-238 7.08E+09 6.11E+09 5.54E+09 4.33E+09 1.62E+09 5.19E+07 2.79E+03 0. 0. 0. 0. 0. 0. 0. NP-239 2.28E+09 2.27E+09 2.27E+09 2.22E+09 2.07E+09 1.72E+09 8.90E+08 1.36E+08 1.88E+05 7.44E+01 7.21E+01 NP-240 1.99E+01 1.99E+04 1.80E+04 1.80E+04 1.79E+04	U-238	1.00E+12			1.00E+12								
NP-237 9.33E+11 9.33E+11 9.34E+11 9.36E+11 9.41E+11 9.49E+11 9.53E+11 9.51E+11 9.45E+11 9.23E+11 8.66E+11 6.90E+11 NP-238 7.08E+09 6.11E+09 5.54E+09 4.33E+09 1.62E+09 5.19E+07 2.79E+03 0. 0. 0. 0. 0. 0. NP-239 2.28E+09 2.27E+09 2.27E+09 2.26E+09 2.22E+09 2.07E+09 1.72E+09 8.90E+08 1.36E+08 1.88E+05 7.44E+01 7.21E+01 NP-240 1.99E+01 1.	U-240	1.81E+04	1.81E+04	1.81E+04	1.81E+04								
NP-238 7.08E+09 6.11E+09 5.54E+09 4.33E+09 1.62E+09 5.19E+07 2.79E+03 0. 0. 0. 0. 0. 0. NP-239 2.27E+09 2.27E+09 2.26E+09 2.22E+09 2.07E+09 1.72E+09 8.90E+08 1.36E+08 1.88E+05 7.44E+01 7.21E+01 NP-240 1.99E+01	NP-237	9.33E+11	9.33E+11	9.34E+11	9.36E+11	9.41E+11	9.49E+11	9.53E+11	9.51E+11				
NP-240 1.99E+01 1.99E	NP-238	7.08E+09	6.11E+09	5.54E+09	4.33E+09	1.62E+09	5.19E+07	2.79E+03	0.				
NP-240 1.99E+01 1.99E	NP-239	2.28E+09	2.27E+09						8.90E+08	1.36E+08	1.88E+05		
NP-240M 1.81E+04 1.80E+04 1.79E+04													
		1.81E+04											
	PU-238												

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-239	5.12E+13	5.12E+13	5.11E+13	5.11E+13	5.08E+13	4.98E+13	4.70E+13	3.84E+13	2.16E+13	2.89E+12	9.20E+09	8.90E+01
PU-240	6.05E+11	6.03E+11	6.02E+11	5.99E+11	5.86E+11	5.44E+11	4.40E+11	2.10E+11	2.51E+10	1.50E+07	1.80E+04	1.79E+04
PU-241	1.75E+14	4.12E+13	1.57E+13	1.42E+12	1.81E+08	8.29E+07	7.04E+07	3.98E+07	7.79E+06	2.59E+04	2.14E-03	0.
PU-242	8.44E+11	8.44E+11	8.44E+11	8.44E+11	8.44E+11	8.43E+11	8.40E+11	8.29E+11	7.99E+11	7.02E+11	4.86E+11	1.34E+11
PU-243	7.54E+01	7.53E+01	7.53E+01	7.50E+01	7.44E+01	7.21E+01						
PU-244	1.81E+04	1.79E+04										
AM-241	1.00E+14	9.97E+13	9.74E+13	9.04E+13	6.56E+13	2.13E+13	8.64E+11	5.34E+07	8.21E+06	2.72E+04	2.25E-03	0.
AM-242	1.54E+12	1.33E+12	1.20E+12	9.40E+11	3.52E+11	1.13E+10	6.05E+05	0.	0.	0.	0.	0.
AM-242M	1.54E+12	1.33E+12	1.21E+12	9.44E+11	3.53E+11	1.13E+10	6.07E+05	0.	0.	0.	0.	0.
AM-243	2.28E+09	2.27E+09	2.27E+09	2.26E+09	2.22E+09	2.07E+09	1.72E+09	8.90E+08	1.36E+08	1.88E+05	7.44E+01	7.21E+01
CM-242	1.27E+12	1.10E+12	9.97E+11	7.80E+11	2.92E+11	9.34E+09	5.02E+05	0.	0.	0.	0.	0.
CM-243	3.02E+11	1.46E+11	8.95E+10	2.65E+10	2.05E+08	8.27E+00	0.	0.	0.	0.	0.	0.
CM-244	1.47E+11	4.66E+10	2.17E+10	3.20E+09	1.51E+06	3.50E-06	0.	0.	0.	0.	0.	0.
CM-245	8.98E+07	8.96E+07	8.94E+07	8.91E+07	8.76E+07	8.28E+07	7.03E+07	3.97E+07	7.78E+06	2.58E+04	2.13E-03	0.
CM-246	1.62E+07	1.61E+07	1.60E+07	1.59E+07	1.55E+07	1.40E+07	1.05E+07	3.79E+06	2.09E+05	8.14E+00	0.	0.
CM-247	7.54E+01	7.53E+01	7.53E+01	7.50E+01	7.44E+01	7.21E+01						
CM-248	4.77E+02	4.77E+02	4.77E+02	4.77E+02	4.76E+02	4.76E+02	4.74E+02	4.67E+02	4.48E+02	3.89E+02	2.58E+02	6.17E+01
Summe	3.48E+14	2.12E+14	1.83E+14	1.58E+14	1.27E+14	7.92E+13	5.59E+13	4.70E+13	3.22E+13	1.92E+13	2.25E+13	2.31E+13

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie Stilllegung (S)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	4.28E+14	7.95E+13	2.59E+13	1.56E+12	2.08E+07	0.	0.	0.	0.	0.	0.	0.
BE-10	2.80E+03	2.79E+03	2.76E+03	2.68E+03	2.46E+03	1.82E+03						
C-14	1.17E+15	1.16E+15	1.16E+15	1.15E+15	1.13E+15	1.03E+15	8.12E+14	3.48E+14	3.10E+13	6.51E+09	2.40E+03 2.03E-01	0.
NA-22	6.54E+03	2.21E+00	1.07E-02	0.	0.	0.	0.	0.	0.	0.515+09	0.	0.
CL-36	2.50E+11	2.50E+11	2.50E+11	2.50E+11	2.50E+11	2.49E+11	2.48E+11	2.44E+11	2.33E+11	1.98E+11	1.25E+11	2.50E+10
AR-39	3.17E+11	2.94E+11	2.79E+11	2.45E+11	1.46E+11	2.41E+10	1.39E+08	2.04E+00	0.	0.	0.	0.
K-40	1.28E+08	1.28E+08										
CA-41	8.58E+10	8.58E+10	8.57E+10	8.57E+10	8.56E+10	8.52E+10	8.40E+10	8.01E+10	7.00E+10	4.35E+10	1.12E+10	9.60E+07
CA-45	5.08E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN-54	9.97E+09	2.78E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	8.19E+13	3.70E+10	2.18E+08	5.81E+02	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	5.02E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	1.67E+16	3.23E+14	2.33E+13	3.24E+10	1.23E-01	0.	0.	0.	0.	0.	0.	0.
NI-59	4.17E+14	4.17E+14	4.17E+14	4.17E+14	4.16E+14	4.13E+14	4.06E+14	3.80E+14	3.16E+14	1.66E+14	2.61E+13	4.04E+10
NI-63	1.57E+17	1.27E+17	1.10E+17	7.64E+16	1.80E+16	1.15E+14	6.16E+07	0.	0.	0.	0.	0.
ZN-65	1.03E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.47E+11	1.46E+11	1.44E+11	1.37E+11	1.16E+11	7.28E+10	1.41E+10
RB-87	6.67E+06	6.67E+06										
SR-90	1.42E+14	6.95E+13	4.32E+13	1.31E+13	1.12E+11	1.03E+04	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
Y-90	1.42E+14	6.95E+13	4.32E+13	1.31E+13	1.13E+11	1.03E+04	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
ZR-93	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.70E+10	6.69E+10	6.67E+10	6.61E+10	6.40E+01	5.85E+10	4.26E+10
NB-93M	1.56B+11	1.76E+11	1.80E+11	1.81E+11	1.77E+11	1.62E+11	1.30E+11	8.00E+10	6.31E+10	6.08E+10	5.56E+10	4.26E+10 4.05E+10
NB-94	6.08E+13	6.08E+13	6.07E+13	6.06E+13	6.02E+13	5.88E+13	5.49E+13	4.32E+13	2.18E+13	2.00E+12	2.16E+09	9.01E-02
MO-93	1.36E+11	1.35E+11	1.35E+11	1.34E+11	1.28E+11	1.12E+11	7.52E+10	1.88E+10	3.58E+08	3.41E+02	0.	0.
TC-99	3.44E+13	3.44E+13	3.44E+13	3.44E+13	3.44E+13	3.43E+13	3.41E+13	3.33E+13	3.12E+13	2.49E+13	1.30E+13	1.33E+12
RU-106	8.60E+09	9.46E+00	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	8.60E+09	9.46E+00	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	3.81E+07	3.81E+07	3.81E+07	3.81E+07	3.81E+07	3.80E+07	3.80E+07	3.80E+07	3.79E+07	3.77E+07	3.69E+07	3.42E+07
AG-108	3.81E+11	3.23E+11	2.90E+11	2.21E+11	7.41E+10	1.62E+09	2.95E+04	0.	0.	0.	0.	0.
AG-108M	4.38E+12	3.72E+12	3.33E+12	2.54E+12	8.52E+11	1.87E+10	3.39E+05	0.	0.	0.	0.	0.
AG-109M	3.79E+05	2.95E-02	5.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
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Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AG-110	5.42E+06	3.42E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	3.99E+08	2.52E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	3.79E+05	2.95E-02	5.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	2.65E-07	3.33E-07	3.45E-07	3.51E-07	3.52E-07							
CD-113M	4.27E+10	9.26E+09	3.34E+09	2.61E+08	9.78E+03	0.	0.	0.	0.	0.	0.	0.
SN-119M	2.86E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	1.87E+11	1.86E+11	1.86E+11	1.86E+11	1.86E+11	1.85E+11	1.83E+11	1.74E+11	1.51E+11	9.33E+10	2.33E+10	1.82E+08
SB-125	3.00E+13	1.65E+10	1.11E+08	4.08E+02	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	2.61E+10	2.61E+10	2.61E+10	2.61E+10	2.61E+10	2.59E+10	2.56E+10	2.44E+10	2.12E+10	1.31E+10	3.26E+09	2.55E+07
SB-126M	1.87E+11	1.86E+11	1.86E+11	1.86E+11	1.86E+11	1.85E+11	1.83E+11	1.74E+11	1.51E+11	9.33E+10	2.33E+10	1.82E+08
TE-125M	7.33E+12	4.03E+09	2.70E+07	9.95E+01	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.41E+09	1.40E+09	1.39E+09	1.35E+09								
CS-134	3.01E+12	1.25E+08	1.51E+05	7.57E-03	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	2.95E+11	2.94E+11	2.92E+11	2.86E+11	2.69E+11	2.18E+11						
CS-137	1.92E+16	9.59E+15	6.04E+15	1.90E+15	1.87E+13	1.78E+06	2.83E+03	1.06E+03	1.14E+02	5.40E+01	4.32E+01	2.68E+01
BA-133	1.93E+08	2.78E+07	7.66E+06	3.04E+05	7.53E-01	0.	0.	0.	0.	0.	0.	0.
BA-137M	1.81E+16	9.06E+15	5.71E+15	1.80E+15	1.77E+13	1.68E+06	2.67E+03	1.00E+03	1.08E+02	5.10E+01	4.08E+01	2.53E+01
CE-144	2.63E+08	6.58E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	2.63E+08	6.58E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	3.16E+06	7.89E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	3.33E-03											
SM-148	1.89E-14	4.24E-14	5.89E-14	1.01E-13	2.69E-13	8.59E-13	2.54E-12	8.44E-12	2.53E-11	8.42E-11	2.53E-10	8.42E-10
SM-151	2.13E+13	1.69E+13	1.45E+13	9.86E+12	2.11E+12	9.63E+09	1.97E+03	0.	0.	0.	0.	0.
EU-152	3.29E+13	7.05E+12	2.53E+12	1.94E+11	6.73E+06	0.	0.	0.	0.	0.	0.	0.
EU-154	1.53E+13	1.36E+12	2.70E+11	4.78E+09	4.68E+02	0.	0.	0.	0.	0.	0.	0.
EU-155	6.44E+11	8.16E+09	4.44E+08	3.05E+05	0.	0.	0.	0.	0.	0.	0.	0.
GD-152	7.35E+00	8.26E+00	8.42E+00	8.50E+00								
Summe	2.14E+17	1.48E+17	1.23E+17	8.18E+16	1.97E+16	1.66E+15	1.31E+15	8.07E+14	4.01E+14	1.93E+14	3.97E+13	1.71E+12

C.9

C.9.1

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie sonstige Ablieferungspflichtige (U)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	7.06E+11	8.28E+11	8.47E+11	5.12E+10	6.82E+05	0.	0.	0.	0.	0.	0.	0.
C-14	1.12E+11	2.20E+11	2.92E+11	2.91E+11	2.84E+11	2.61E+11	2.05E+11	8.77E+10	7.81E+09	1.64E+06	5.10E-05	0.
NA-22	1.68E+04	1.68E+04	1.68E+04	2.77E-02	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.42E+07	5.42E+07	5.42E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.59E+09	3.12E+09	4.15E+09	4.14E+09	4.14E+09	4.14E+09	4.12E+09	4.05E+09	3.87E+09	3.29E+09	2.08E+09	4.14E+08
CA-45	6.49E+07	6.49E+07	6.49E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	5.12E+07	5.12E+07	5.12E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	8.48E+08	8.48E+08	8.48E+08	2.26E+03	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	5.14E+07	5.14E+07	5.14E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	4.10E+09	4.10E+09	4.10E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	5.27E+06	5.27E+06	5.27E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	2.23E+09	2.27E+09	2.27E+09	3.16E+06	1.19E-05	0.	0.	0.	0.	0.	0.	0.
NI-63	6.29E+09	1.12E+10	1.39E+10	9.68E+09	2.28E+09	1.46E+07	7.80E+00	0.	0.	0.	0.	0.
SR-90	2.10E+11	3.08E+11	3.44E+11	1.05E+11	8.95E+08	5.20E+01	0.	0.	0.	0.	0.	0.
Y-90	2.10E+11	3.08E+11	3.44E+11	1.05E+11	8.96E+08	5.20E+01	0.	0.	0.	0.	0.	0.
ZR-95	5.22E+04	5.22E+04	5.22E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95	5.34E+04	5.34E+04	5.34E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	1.20E+01	1.20E+01	1.20E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
MO-99	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-99	3.17E+06	6.24E+06	8.29E+06	8.29E+06	8.28E+06	8.26E+06	8.21E+06	8.03E+06	7.52E+06	5.99E+06	3.12E+06	3.20E+05
TC-99M	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-103	2.49E+06	2.49E+06	2.49E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	1.03E+07	1.03E+07	1.03E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	3.59E+03	3.59E+03	3.59E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.03E+07	1.03E+07	1.03E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	3.97E+03	3.97E+03	3.97E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	8.04E+05	8.04E+05	8.04E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-111	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	5.20E+04	5.20E+04	5.20E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-131	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	6.92E-07	6.92E-07	6.92E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CS-134	1.79E+07	1.79E+07	1.79E+07	9.00E-01	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	4.18E+10	6.17E+10	6.91E+10	2.18E+10	2.14E+08	2.03E+01	0.	0.	0.	0.	0.	0.
BA-137M	3.94E+10	5.83E+10	6.52E+10	2.05E+10	2.02E+08	1.91E+01	0.	0.	0.	0.	0.	0.
CE-144	3.52E+05	3.52E+05	3.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.52E+05	3.52E+05	3.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.22E+03	4.22E+03	4.22E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	2.25E-09	4.56E-09	6.10E-09	6.23E-09								
PM-147	7.15E+09	7.15E+09	7.15E+09	1.31E+04	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	1.10E+00	2.33E+00	3.15E+00	3.33E+00								
HG-197	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	5.14E+07	5.14E+07	5.14E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-201	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	7.53E+03	1.09E+04	1.35E+04	1.70E+04	2.16E+04	3.28E+04	5.09E+04	6.17E+04	5.74E+04	4.57E+04	3.52E+04	3.38E+04
TL-207	1.58E+09	1.89E+09	1.98E+09	2.07E+09	2.08E+09	2.07E+09	2.03E+09	1.89E+09	1.61E+09	1.20E+09	1.08E+09	1.07E+09
TL-208	1.08E+09	1.14E+09	1.18E+09									
TL-209	1.49E-04	6.27E-04	1.15E-03	3.31E-03	2.99E-02	5.22E-01	6.79E+00	7.68E+01	4.49E+02	1.75E+03	3.76E+03	4.27E+03
TL-210	1.62E+06	2.32E+06	2.78E+06	2.97E+06	3.58E+06	5.37E+06	8.24E+06	9.97E+06	9.27E+06	7.39E+06	5.69E+06	5.46E+06
PB-209	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
PB-210	5.81E+09	8.41E+09	1.04E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
PB-211	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PB-212	3.02E+09	3.18E+09	3.29E+09									
PB-214	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
BI-210	5.79E+09	8.39E+09	1.04E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
BI-211	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
BI-212	3.02E+09	3.18E+09	3.29E+09									
BI-213	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
BI-214	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
BI-215	1.27E+03	1.52E+03	1.60E+03	1.66E+03	1.68E+03	1.67E+03	1.63E+03	1.53E+03	1.30E+03	9.63E+02	8.67E+02	8.65E+02
PO-210	5.77E+09	8.36E+09	1.03E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
PO-211	4.37E+06	5.24E+06	5.49E+06	5.72E+06	5.76E+06	5.72E+06	5.61E+06	5.24E+06	4.46E+06	3.31E+06	2.98E+06	2.97E+06
PO-212	1.93E+09	2.03E+09	2.10E+09	2.11E+09								
PO-213	7.00E-03	2.94E-02	5.38E-02	1.55E-01	1.40E+00	2.45E+01	3.18E+02	3.60E+03	2.10E+04	8.22E+04	1.76E+05	2.00E+05
PO-214	7.72E+09	1.11E+10	1.32E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
PO-215	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PO-216	3.01E+09	3.18E+09	3.28E+09	3.29E+09								
PO-218	7.72E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
AT-215	3.64E+03	4.36E+03	4.58E+03	4.76E+03	4.80E+03	4.77E+03	4.67E+03	4.37E+03	3.71E+03	2.76E+03	2.48E+03	2.48E+03

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AT-217	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
AT-218	1.54E+06	2.21E+06	2.65E+06	2.82E+06	3.41E+06	5.11E+06	7.85E+06	9.50E+06	8.83E+06	7.04E+06	5.41E+06	5.20E+06
AT-219	1.31E+03	1.57E+03	1.65E+03	1.72E+03	1.73E+03	1.72E+03	1.68E+03	1.57E+03	1.34E+03	9.93E+02	8.94E+02	8.92E+02
RN-217	8.58E-07	3.59E-06	6.54E-06	1.90E-05	1.72E-04	3.00E-03	3.90E-02	4.41E-01	2.58E+00	1.01E+01	2.16E+01	2.45E+01
RN-218	1.54E+03	2.21E+03	2.65E+03	2.82E+03	3.41E+03	5.11E+03	7.85E+03	9.50E+03	8.83E+03	7.04E+03	5.41E+03	5.20E+03
RN-219	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
RN-220	3.01E+09	3.18E+09	3.28E+09	3.29E+09								
RN-222	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
FR-221	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
FR-223	2.19E+07	2.62E+07	2.75E+07	2.86E+07	2.88E+07	2.86E+07	2.80E+07	2.62E+07	2.23E+07	1.65E+07	1.49E+07	1.49E+07
RA-223	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.49E+07
RA-224	3.02E+09	3.18E+09	3.29E+09									
RA-225	7.17E-03	3.00E-02	5.50E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
RA-226	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
RA-228	3.02E+09	3.18E+09	3.29E+09									
AC-225	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
AC-227	1.59E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
AC-228	3.02E+09	3.18E+09	3.29E+09									
TH-227	1.56E+09	1.87E+09	1.96E+09	2.04E+09	2.06E+09	2.04E+09	2.00E+09	1.87E+09	1.59E+09	1.18B+09	1.07E+09	1.06E+09
TH-228	3.02E+09	3.18E+09	3.29E+09									
TH-229	7.20E-03	3.01E-02	5.51E-02	1.59E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15B+04	8.40E+04	1.80E+05	2.04E+05
TH-230	4.97E+10	4.97E+10	4.97E+10	4.96E+10	4.96E+10	4.94E+10	4.90E+10	4.75E+10	4.37E+10	3.50E+10	2.70E+10	2.60E+10
TH-231	1.08E+09											
TH-232	3.02E+09	3.18E+09	3.29E+09									
TH-234	2.61E+10	2.61B+10	2.61E+10									
PA-231	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PA-233	4.20E+04	4.79E+04	5.38E+04	7.01E+04	1.24E+05	2.19E+05	2.63E+05	2.65E+05	2.63E+05	2.57E+05	2.41E+05	1.92E+05
PA-234	4.17E+07											
PA-234M	2.61E+10											
U-233	5.23E+00	1.11E+01	1.55E+01	2.91E+01	1.15E+02	6.66E+02	2.85E+03	1.07E+04	3.19E+04	9.20E+04	1.83E+05	2.04E+05
U-234	2.51E+10	2.52E+10	2.53E+10	2.56E+10	2.60E+10							
U-235	1.08E+09											
U-236	1.57E+08	1.56E+08	1.56E+08	1.52E+08								
U-238	2.61E+10											
NP-237	4.20E+04	4.79E+04	5.39E+04	7.02E+04	1.24E+05	2.19E+05	2.63E+05	2.65E+05	2.63E+05	2.57E+05	2.41E+05	1.92E+05
PU-239	1.13E+04	1.13E+04	1.13E+04	1.13E+04	1.12E+04	1.10E+04	1.04E+04	8.47E+03	4.77E+03	6.37E+02	2.03E+00	3.69E-09
AM-241	4.17E+08	8.01E+08	1.05E+09	9.67E+08	7.02E+08	2.28E+08	9.24E+06	1.23E+02	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
Summe	1.61E+12	2.11E+12	2.31E+12	9.39E+11	6.52E+11	7.01E+11	7.67E+11	7.22E+11	6.06E+11	5.04E+11	4.22E+11	4.09E+11

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie sonstige Ablieferungspflichtige (U)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	2.25E-09	4.56E-09	6.10E-09	6.23E-09								
SM-147	1.10E+00	2.33E+00	3.15E+00	3.33E+00								
BI-210	7.53E+03	1.09E+04	1.35E+04	1.70E+04	2.16E+04	3.28E+04	5.09E+04	6.17E+04	5.74E+04	4.57E+04	3.52E+04	3.38E+04
BI-211	1.58E+09	1.89E+09	1.98E+09	2.07E+09	2.08E+09	2.07E+09	2.03E+09	1.89E+09	1.61E+09	1.20E+09	1.08E+09	1.07E+09
BI-212	1.08E+09	1.14E+09	1.18E+09									
BI-213	1.49E-04	6.27E-04	1.15E-03	3.31E-03	2.99E-02	5.22E-01	6.79E+00	7.68E+01	4.49E+02	1.75E+03	3.76E+03	4.27E+03
BI-214	1.64E+06	2.34E+06	2.80E+06	2.97E+06	3.58E+06	5.37E+06	8.24E+06	9.97E+06	9.27E+06	7.39E+06	5.69E+06	5.46E+06
PO-210	5.77E+09	8.36E+09	1.03E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
PO-211	4.37E+06	5.24E+06	5.49E+06	5.72E+06	5.76E+06	5.72E+06	5.61E+06	5.24E+06	4.46E+06	3.31E+06	2.98E+06	2.97E+06
PO-212	1.93E+09	2.03E+09	2.10E+09	2.11E+09								
PO-213	7.00E-03	2.94E-02	5.38E-02	1.55E-01	1.40E+00	2.45E+01	3.18E+02	3.60E+03	2.10E+04	8.22E+04	1.76E+05	2.00E+05
PO-214	7.72E+09	1.11E+10	1.32E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
PO-215	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PO-216	3.01E+09	3.18E+09	3.28E+09	3.29E+09								
PO-218	7.72E+09	1.11E+10	1.32E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
AT-215	3.64E+03	4.36E+03	4.58E+03	4.76E+03	4.80E+03	4.77E+03	4.67E+03	4.37E+03	3.71E+03	2.76E+03	2.48E+03	2.48E+03
AT-217	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
AT-218	1.54E+06	2.21E+06	2.65E+06	2.82E+06	3.41E+06	5.11E+06	7.84E+06	9.49E+06	8.82E+06	7.03E+06	5.41E+06	5.19E+06
AT-219	1.27E+03	1.52E+03	1.60E+03	1.66E+03	1.68E+03	1.67E+03	1.63E+03	1.53E+03	1.30E+03	9.63E+02	8.67E+02	8.65E+02
RN-217	8.58E-07	3.59E-06	6.54E-06	1.90E-05	1.72E-04	3.00E-03	3.90E-02	4.41E-01	2.58E+00	1.01E+01	2.16E+01	2.45E+01
RN-218	1.54E+03	2.21E+03	2.65E+03	2.82E+03	3.41E+03	5.11E+03	7.85E+03	9.50E+03	8.83E+03	7.04E+03	5.41E+03	5.20E+03
RN-219	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
RN-220	3.01E+09	3.18E+09	3.28E+09	3.29E+09								
RN-222	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
FR-221	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
FR-223	1.31E+03	1.57E+03	1.65E+03	1.72E+03	1.73E+03	1.72E+03	1.68E+03	1.57E+03	1.34E+03	9.93E+02	8.94E+02	8.92E+02
RA-223	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
RA-224	3.02E+09	3.18E+09	3.29E+09									
RA-226	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
AC-225	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
AC-227	2.19E+07	2.62E+07	2.75E+07	2.86E+07	2.88E+07	2.86E+07	2.80E+07	2.62E+07	2.23E+07	1.65E+07	1.49E+07	1.49E+07

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TH-227	1.56E+09	1.87E+09	1.96E+09	2.04E+09	2.06E+09	2.04E+09	2.00E+09	1.87E+09	1.59E+09	1.18E+09	1.07E+09	1.06E+09
TH-228	3.02E+09	3.18E+09	3.29E+09									
TH-229	7.20E-03	3.01E-02	5.51E-02	1.59E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
TH-230	4.97E+10	4.97E+10	4.97E+10	4.96E+10	4.96E+10	4.94E+10	4.90E+10	4.75E+10	4.37E+10	3.50E+10	2.70E+10	2.60E+10
TH-232	3.02E+09	3.18E+09	3.29E+09									
PA-231	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
U-233	5.23E+00	1.11E+01	1.55E+01	2.91E+01	1.15E+02	6.66E+02	2.85E+03	1.07E+04	3.19E+04	9.20E+04	1.83E+05	2.04E+05
U-234	2.51E+10	2.52E+10	2.53E+10	2.56E+10	2.60E+10							
U-235	1.08E+09											
U-236	1.57E+08	1.56E+08	1.56E+08	1.52E+08								
U-238	2.61E+10											
NP-237	4.20E+04	4.79E+04	5.39E+04	7.02E+04	1.24E+05	2.19E+05	2.63E+05	2.65E+05	2.63E+05	2.57E+05	2.41E+05	1.92E+05
PU-239	1.13E+04	1.13E+04	1.13E+04	1.13E+04	1.12E+04	1.10E+04	1.04E+04	8.47E+03	4.77E+03	6.37E+02	2.03E+00	3.69E-09
AM-241	4.17E+08	8.01E+08	1.05E+09	9.67E+08	7.02E+08	2.28E+08	9.24E+06	1.23E+02	0.	0.	0.	0.
Summe	1.67E+11	1.86E+11	1.98E+11	2.05E+11	2.20E+11	2.62E+11	3.29E+11	3.69E+11	3.46E+11	2.90E+11	2.42E+11	2.35E+11

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie sonstige Ablieferungspflichtige (U)

,													
	Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
	H-3	7.06E+11	8.28E+11	8.47E+11	5.12E+10	6.82E+05	0.	0.	0.	0.	0.	0.	0.
1	C-14	1.12E+11	2.20E+11	2.92E+11	2.91E+11	2.84E+11	2.61E+11	2.05E+11	8.77E+10	7.81E+09	1.64E+06	5.10E-05	0.
	NA-22	1.68E+04	1.68E+04	1.68E+04	2.77E-02	0.	0.	0.	0.	0.	0.	0.	0.
	S-35	5.42E+07	5.42E+07	5.42E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
	CL-36	1.59E+09	3.12E+09	4.15E+09	4.14E+09	4.14E+09	4.14E+09	4.12E+09	4.05E+09	3.87E+09	3.29E+09	2.08E+09	4.14E+08
1	CA-45	6.49E+07	6.49E+07	6.49E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
1	CR-51	5.12E+07	5.12E+07	5.12E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
	FE-55	8.48E+08	8.48E+08	8.48E+08	2.26E+03	0.	0.	0.	0.	0.	0.	0.	0.
	FE-59	5.14E+07	5.14E+07	5.14E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
,	CO-57	4.10E+09	4.10E+09	4.10E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
	CO-58	5.27E+06	5.27E+06	5.27E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
	CO-60	2.23E+09	2.27E+09	2.27E+09	3.16E+06	1.19E-05	0.	0.	0.	0.	0.	0.	0.
	NI-63	6.29E+09	1.12E+10	1.39E+10	9.68E+09	2.28E+09	1.46E+07	7.80E+00	0.	0.	0.	0.	0.
	SR-90	2.10E+11	3.08E+11	3.44E+11	1.05E+11	8.95E+08	5.20E+01	0.	0.	0.	0.	0.	0.
	Y-90	2.10E+11	3.08E+11	3.44E+11	1.05E+11	8.96E+08	5.20E+01	0.	0.	0.	0.	0.	0.
	ZR-95	5.22E+04	5.22E+04	5.22E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
	NB-95	5.34E+04	5.34E+04	5.34E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
	NB-95M	1.20E+01	1.20E+01	1.20E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
	MO-99	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
,	TC-99	3.17E+06	6.24E+06	8.29E+06	8.29E+06	8.28E+06	8.26E+06	8.21E+06	8.03E+06	7.52E+06	5.99E+06	3.12E+06	3.20E+05
,	TC-99M	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
	RU-103	2.49E+06	2.49E+06	2.49E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
	RU-106	1.03E+07	1.03E+07	1.03E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
	RH-103M	3.59E+03	3.59E+03	3.59E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
	RH-106	1.03E+07	1.03E+07	1.03E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
	AG-110	3.97E+03	3.97E+03	3.97E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
	AG-110M	8.04E+05	8.04E+05	8.04E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
	IN-111	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
	J-125	5.20E+04	5.20E+04	5.20E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
	J-131	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
	XE-131M	6.92E-07	6.92E-07	6.92E-07	0.	0.	0.	0.	0.	0.	0.	0.	0 -

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CS-134	1.79E+07	1.79E+07	1.79E+07	9.00E-01	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	4.18E+10	6.17E+10	6.91E+10	2.18E+10	2.14E+08	2.03E+01	0.	0.	0.	0.	0.	0.
BA-137M	3.94E+10	5.83E+10	6.52E+10	2.05E+10	2.02E+08	1.91E+01	0.	0.	0.	0.	0.	0.
CE-144	3.52E+05	3.52E+05	3.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.52E+05	3.52E+05	3.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.22E+03	4.22E+03	4.22E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-147	7.15E+09	7.15E+09	7.15E+09	1.31E+04	0.	0.	0.	0.	0.	0.	0.	0.
HG-197	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	5.14E+07	5.14E+07	5.14E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-201	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	7.53E+03	1.09E+04	1.35E+04	1.70E+04	2.16E+04	3.28E+04	5.09E+04	6.17E+04	5.74E+04	4.57E+04	3.52E+04	3.38E+04
TL-207	1.58E+09	1.89E+09	1.98E+09	2.07E+09	2.08E+09	2.07E+09	2.03E+09	1.89E+09	1.61E+09	1.20E+09	1.08E+09	1.07E+09
TL-208	1.08E+09	1.14E+09	1.18E+09									
TL-209	1.49E-04	6.27E-04	1.15E-03	3.31E-03	2.99E-02	5.22E-01	6.79E+00	7.68E+01	4.49E+02	1.75E+03	3.76E+03	4.27E+03
TL-210	1.62E+06	2.32E+06	2.78E+06	2.97E+06	3.58E+06	5.37E+06	8.24E+06	9.97E+06	9.27E+06	7.39E+06	5.69E+06	5.46E+06
PB-209	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
PB-210	5.81E+09	8.41E+09	1.04E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
PB-211	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PB-212	3.02E+09	3.18E+09	3.29E+09									
PB-214	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
BI-210	5.79E+09	8.39E+09	1.04E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
BI-211	4.37E+06	5.24E+06	5.49E+06	5.72E+06	5.76E+06	5.72E+06	5.61E+06	5.24E+06	4.46E+06	3.31E+06	2.98E+06	2.97E+06
BI-212	1.93E+09	2.04E+09	2.11E+09									
BI-213	7.00E-03	2.94E-02	5.38E-02	1.55E-01	1.40E+00	2.45E+01	3.18E+02	3.60E+03	2.10E+04	8.22E+04	1.76E+05	2.00E+05
BI-214	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
BI-215	1.27E+03	1.52E+03	1.60E+03	1.66E+03	1.68E+03	1.67E+03	1.63E+03	1.53E+03	1.30E+03	9.63E+02	8.67E+02	8.65E+02
PO-215	3.64E+03	4.36E+03	4.58E+03	4.76E+03	4.80E+03	4.77E+03	4.67E+03	4.37E+03	3.71E+03	2.76E+03	2.48E+03	2.48E+03
PO-218	1.54E+06	2.21E+06	2.65E+06	2.82E+06	3.41E+06	5.11E+06	7.85E+06	9.50E+06	8.83E+06	7.04E+06	5.41E+06	5.20E+06
AT-217	8.58E-07	3.60E-06	6.59E-06	1.90E-05	1.72E-04	3.00E-03	3.90E-02	4.41E-01	2.58E+00	1.01E+01	2.16E+01	2.45E+01
AT-218	1.54E+03	2.21E+03	2.65E+03	2.82E+03	3.41E+03	5.11E+03	7.85E+03	9.50E+03	8.83E+03	7.04E+03	5.41E+03	5.20E+03
AT-219	3.94E+01	4.72E+01	4.94E+01	5.15E+01	5.19E+01	5.15E+01	5.05E+01	4.72E+01	4.01E+01	2.98E+01	2.68E+01	2.68E+01
FR-223	2.19E+07	2.62E+07	2.75E+07	2.86E+07	2.88E+07	2.86E+07	2.80E+07	2.62E+07	2.23E+07	1.65E+07	1.49E+07	1.49E+07
RA-225	7.17E-03	3.00E-02	5.50E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
RA-228	3.02E+09	3.18E+09	3.29E+09									
AC-227	1.56E+09	1.87E+09	1.96E+09	2.04E+09	2.06E+09	2.04E+09	2.00E+09	1.87E+09	1.59E+09	1.18E+09	1.07E+09	1.06E+09
AC-228	3.02E+09	3.18E+09	3.29E+09									
TH-231	1.08E+09											

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TH-234	2.61E+10											
PA-233	4.20E+04	4.79E+04	5.38E+04	7.01E+04	1.24E+05	2.19E+05	2.63E+05	2.65E+05	2.63E+05	2.57E+05	2.41E+05	1.92E+05
PA-234	4.17E+07											
PA-234M	2.61E+10											
Summe	1.44E+12	1.92E+12	2.11E+12	7.34E+11	4.32E+11	4.39E+11	4.38E+11	3.54E+11	2.60E+11	2.14E+11	1.80E+11	1.74E+11

W S 1004

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie sonstige Ablieferungspflichtige (U)

Nuklid	d 1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	6 7.53E+03	1.09E+04	1.35E+04	1.70E+04	2.16E+04	3.28E+04	5.09E+04	6.17E+04	5.74E+04	4.57E+04	3.52E+04	3.38E+04
TL-207	7 1.58E+09	1.89E+09	1.98E+09	2.07E+09	2.08E+09	2.07E+09	2.03E+09	1.89E+09	1.61E+09	1.20E+09	1.08E+09	1.07E+09
TL-208	8 1.08E+09	1.14E+09	1.18E+09									
TL-209	9 1.49E-04	6.27E-04	1.15E-03	3.31E-03	2.99E-02	5.22E-01	6.79E+00	7.68E+01	4.49E+02	1.75E+03	3.76E+03	4.27E+03
TL-210	0 1.62E+06	2.32E+06	2.78E+06	2.97E+06	3.58E+06	5.37E+06	8.24E+06	9.97E+06	9.27E+06	7.39E+06	5.69E+06	5.46E+06
PB-209	9 7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
PB-210	0 5.81E+09	8.41E+09	1.04E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
PB-211	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PB-212	2 3.02E+09	3.18E+09	3.29E+09									
PB-214	4 7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
BI-210	0 5.79E+09	8.39E+09	1.04E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
BI-211	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
BI-212	2 3.02E+09	3.18E+09	3.29E+09									
BI-213	3 7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
BI-214	4 7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
BI-215	5 1.27E+03	1.52E+03	1.60E+03	1.66E+03	1.68E+03	1.67E+03	1.63E+03	1.53E+03	1.30E+03	9.63E+02	8.67E+02	8.65E+02
PO-210	0 5.77E+09	8.36E+09	1.03E+10	1.31E+10	1.66E+10	2.52E+10	3.91E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
PO-211	1 4.37E+06	5.24E+06	5.49E+06	5.72E+06	5.76E+06	5.72E+06	5.61E+06	5.24E+06	4.46E+06	3.31E+06	2.98E+06	2.97E+06
PO-212	2 1.93E+09	2.03E+09	2.10E+09	2.11E+09								
PO-213	3 7.00E-03	2.94E-02	5.38E-02	1.55E-01	1.40E+00	2.45E+01	3.18E+02	3.60E+03	2.10E+04	8.22E+04	1.76E+05	2.00E+05
PO-214	4 7.72E+09	1.11E+10	1.32E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.41E+10	3.52E+10	2.71E+10	2.60E+10
PO-215	5 1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PO-216	6 3.01E+09	3.18E+09	3.28E+09	3.29E+09								
PO-218	8 7.72E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
AT-215	5 3.64E+03	4.36E+03	4.58E+03	4.76E+03	4.80E+03	4.77E+03	4.67E+03	4.37E+03	3.71E+03	2.76E+03	2.48E+03	2.48E+03
AT-217	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
AT-218	8 1.54E+06	2.21E+06	2.65E+06	2.82E+06	3.41E+06	5.11E+06	7.85E+06	9.50E+06	8.83E+06	7.04E+06	5.41E+06	5.20E+06
AT-219	9 1.31E+03	1.57E+03	1.65E+03	1.72E+03	1.73E+03	1.72E+03	1.68E+03	1.57E+03	1.34E+03	9.93E+02	8.94E+02	8.92E+02
RN-217	7 8.58E-07	3.59E-06	6.54E-06	1.90E-05	1.72E-04	3.00E-03	3.90E-02	4.41E-01	2.58E+00	1.01E+01	2.16E+01	2.45E+01
RN-218	8 1.54E+03	2.21E+03	2.65E+03	2.82E+03	3.41E+03	5.11E+03	7.85E+03	9.50E+03	8.83E+03	7.04E+03	5.41E+03	5.20E+03
RN-219	9 1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RN-220	3.01E+09	3.18E+09	3.28E+09	3.29E+09								
RN-222	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
FR-221	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
FR-223	2.19E+07	2.62E+07	2.75E+07	2.86E+07	2.88E+07	2.86E+07	2.80E+07	2.62E+07	2.23E+07	1.65E+07	1.49E+07	1.49E+07
RA-223	1.58E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
RA-224	3.02E+09	3.18E+09	3.29E+09									
RA-225	7.17E-03	3.00E-02	5.50E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
RA-226	7.81E+09	1.11E+10	1.33E+10	1.41E+10	1.71E+10	2.56E+10	3.93E+10	4.75E+10	4.42E+10	3.52E+10	2.71E+10	2.60E+10
RA-228	3.02E+09	3.18E+09	3.29E+09									
AC-225	7.15E-03	3.00E-02	5.49E-02	1.58E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
AC-227	1.59E+09	1.90E+09	1.99E+09	2.07E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
AC-228	3.02E+09	3.18E+09	3.29E+09									
TH-227	1.56E+09	1.87E+09	1.96E+09	2.04E+09	2.06E+09	2.04E+09	2.00E+09	1.87E+09	1.59E+09	1.18E+09	1.07E+09	1.06E+09
TH-228	3.02E+09	3.18E+09	3.29E+09									
TH-229	7.20E-03	3.01E-02	5.51E-02	1.59E-01	1.43E+00	2.50E+01	3.25E+02	3.67E+03	2.15E+04	8.40E+04	1.80E+05	2.04E+05
TH-230	4.97E+10	4.97E+10	4.97E+10	4.96E+10	4.96E+10	4.94E+10	4.90E+10	4.75E+10	4.37E+10	3.50E+10	2.70E+10	2.60E+10
TH-231	1.08E+09											
TH-232	3.02E+09	3.18E+09	3.29E+09									
TH-234	2.61E+10											
PA-231	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.09E+09	2.07E+09	2.03E+09	1.90E+09	1.61E+09	1.20E+09	1.08E+09	1.08E+09
PA-233	4.20E+04	4.79E+04	5.38E+04	7.01E+04	1.24E+05	2.19E+05	2.63E+05	2.65E+05	2.63E+05	2.57E+05	2.41E+05	1.92E+05
PA-234	4.17E+07											
PA-234M	2.61E+10											
U-233	5.23E+00	1.11E+01	1.55E+01	2.91E+01	1.15E+02	6.66E+02	2.85E+03	1.07E+04	3.19E+04	9.20E+04	1.83E+05	2.04E+05
U-234	2.51E+10	2.52E+10	2.53E+10	2.56E+10	2.60E+10							
U-235	1.08E+09											
U-236	1.57E+08	1.56E+08	1.56E+08	1.52E+08								
U-238	2.61E+10											
NP-237	4.20E+04	4.79E+04	5.39E+04	7.02E+04	1.24E+05	2.19E+05	2.63E+05	2.65E+05	2.63E+05	2.57E+05	2.41E+05	1.92E+05
PU-239	1.13E+04	1.13E+04	1.13E+04	1.13E+04	1.12E+04	1.10E+04	1.04E+04	8.47E+03	4.77E+03	6.37E+02	2.03E+00	3.69E-09
AM-241	4.17E+08	8.01E+08	1.05E+09	9.67E+08	7.02E+08	2.28E+08	9.24E+06	1.23E+02	0.	0.	0.	0.
Summe	2.65E+11	2.97E+11	3.18E+11	3.32E+11	3.60E+11	4.36E+11	5.59E+11	6.31E+11	5.94E+11	5.01E+11	4.20E+11	4.09E+11

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie sonstige Ablieferungspflichtige (U)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	7.06E+11	8.28E+11	8.47E+11	5.12E+10	6.82E+05	0.	0.	0.	0.	0.	0.	0.
C-14	1.12E+11	2.20E+11	2.92E+11	2.91E+11	2.84E+11	2.61E+11	2.05E+11	8.77E+10	7.81E+09	1.64E+06	5.10E-05	0.
NA-22	1.68E+04	1.68E+04	1.68E+04	2.77E-02	0.	0.	0.	0.	0.	0.	0.	0.
S-35	5.42E+07	5.42E+07	5.42E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CL-36	1.59E+09	3.12E+09	4.15E+09	4.14E+09	4.14E+09	4.14E+09	4.12E+09	4.05E+09	3.87E+09	3.29E+09	2.08E+09	4.14E+08
CA-45	6.49E+07	6.49E+07	6.49E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CR-51	5.12E+07	5.12E+07	5.12E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	8.48E+08	8.48E+08	8.48E+08	2.26E+03	0.	0.	0.	0.	0.	0.	0.	0.
FE-59	5.14E+07	5.14E+07	5.14E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-57	4.10E+09	4.10E+09	4.10E+09	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-58	5.27E+06	5.27E+06	5.27E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	2.23E+09	2.27E+09	2.27E+09	3.16E+06	1.19E-05	0.	0.	0.	0.	0.	0.	0.
NI-63	6.29E+09	1.12E+10	1.39E+10	9.68E+09	2.28E+09	1.46E+07	7.80E+00	0.	0.	0.	0.	0.
SR-90	2.10E+11	3.08E+11	3.44E+11	1.05E+11	8.95E+08	5.20E+01	0.	0.	0.	0.	0.	0.
Y-90	2.10E+11	3.08E+11	3.44E+11	1.05E+11	8.96E+08	5.20E+01	0.	0.	0.	0.	0.	0.
ZR-95	5.22E+04	5.22E+04	5.22E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95	5.34E+04	5.34E+04	5.34E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
NB-95M	1.20E+01	1.20E+01	1.20E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.
MO-99	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
TC-99	3.17E+06	6.24E+06	8.29E+06	8.29E+06	8.28E+06	8.26E+06	8.21E+06	8.03E+06	7.52E+06	5.99E+06	3.12E+06	3.20E+05
TC-99M	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-103	2.49E+06	2.49E+06	2.49E+06	0.	0.	0.	0.	0.	0.	0.	0.	0.
RU-106	1.03E+07	1.03E+07	1.03E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-103M	3.59E+03	3.59E+03	3.59E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	1.03E+07	1.03E+07	1.03E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	3.97E+03	3.97E+03	3.97E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	8.04E+05	8.04E+05	8.04E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN-111	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-125	5.20E+04	5.20E+04	5.20E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
J-131	5.12E+04	5.12E+04	5.12E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
XE-131M	6.92E-07	6.92E-07	6.92E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CS-134	1.79E+07	1.79E+07	1.79E+07	9.00E-01	0.	0.	0.	0.	0.	0.	0.	0.
CS-137	4.18E+10	6.17E+10	6.91E+10	2.18E+10	2.14E+08	2.03E+01	0.	0.	0.	0.	0.	0.
BA-137M	3.94E+10	5.83E+10	6.52E+10	2.05E+10	2.02E+08	1.91E+01	0.	0.	0.	0.	0.	0.
CE-144	3.52E+05	3.52E+05	3.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.52E+05	3.52E+05	3.52E+05	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.22E+03	4.22E+03	4.22E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.
ND-144	2.25E-09	4.56E-09	6.10E-09	6.23E-09								
PM-147	7.15E+09	7.15E+09	7.15E+09	1.31E+04	0.	0.	0.	0.	0.	0.	0.	0.
SM-147	1.10E+00	2.33E+00	3.15E+00	3.33E+00								
HG-197	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
HG-203	5.14E+07	5.14E+07	5.14E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.
TL-201	2.49E+04	2.49E+04	2.49E+04	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	1.34E+12	1.81E+12	1.99E+12	6.07E+11	2.92E+11	2.65E+11	2.09E+11	9.18E+10	1.17E+10	3.30E+09	2.08E+09	4.15E+08

C.10

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Gesamtaktivität in [Bq], Herkunftskategorie Wiederaufarbeitung (W)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.53E+16	6.55E+15	2.13E+15	1.29E+14	1.72E+09	1.48E-08	0.	0.	0.	0.	0.	0.
BE-10	1.30E+09	1.29E+09	1.28E+09	1.25E+09	1.14E+09	8.43E+08						
C-14	2.72E+14	2.71E+14	2.71E+14	2.69E+14	2.63E+14	2.41E+14	1.90E+14	8.13E+13	7.23E+12	1.52E+09	4.73E-02	0.
NA-22	1.15E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SI-32	1.72E+07	1.65E+07	1.60E+07	1.48E+07	1.09E+07	3.69E+06	1.70E+05	3.52E+00	0.	0.	0.	0.
P-32	1.72E+07	1.65E+07	1.60E+07	1.48E+07	1.09E+07	3.69E+06	1.70E+05	3.52E+00	0.	0.	0.	0.
CL-36	1.00E+12	1.00E+12	1.00E+12	1.00E+12	9.99E+11	9.98E+11	9.93E+11	9.77E+11	9.33E+11	7.94E+11	5.01E+11	1.00E+11
AR-39	2.65E+09	2.46E+09	2.33E+09	2.05E+09	1.23E+09	2.02E+08	1.17E+06	1.71E-02	0.	0.	0.	0.
AR-42	1.53E+00	8.16E-01	5.36E-01	1.88E-01	2.81E-03	1.16E-09	0.	0.	0.	0.	0.	0.
K-40	1.06E+06											
K-42	1.53E+00	8.16E-01	5.36E-01	1.88E-01	2.81E-03	0.	0.	0.	0.	0.	0.	0.
CA-41	6.45E+10	6.45E+10	6.45E+10	6.44E+10	6.44E+10	6.40E+10	6.32E+10	6.03E+10	5.26E+10	3.27E+10	8.40E+09	7.21E+07
CA-45	3.00E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	4.84E+00											
MN-54	1.86E+08	5.19E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.50E+15	6.77E+11	3.99E+09	1.06E+04	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	2.13E+16	4.12E+14	2.97E+13	4.14E+10	1.56E-01	0.	0.	0.	0.	0.	0.	0.
NI-59	2.07E+15	2.07E+15	2.07E+15	2.07E+15	2.07E+15	2.06E+15	2.02E+15	1.89E+15	1.57E+15	8.23E+14	1.30E+14	2.01E+11
NI-63	2.04E+17	1.65E+17	1.42E+17	9.93E+16	2.34E+16	1.49E+14	8.00E+07	0.	0.	0.	0.	0.
ZN-65	7.47E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	2.45E+13	2.45E+13	2.45E+13	2.45E+13	2.44E+13	2.44E+13	2.43E+13	2.39E+13	2.28E+13	1.93E+13	1.21E+13	2.33E+12
KR-81	3.98E+05	3.98E+05	3.98E+05	3.97E+05	3.97E+05	3.96E+05	3.94E+05	3.85E+05	3.60E+05	2.86E+05	1.48E+05	1.46E+04
KR-85	7.61E+14	1.09E+14	3.00E+13	1.18E+12	2.87E+06	0.	0.	0.	0.	0.	0.	0.
RB-87	5.91E+09											
SR-90	8.95E+18	4.38E+18	2.72E+18	8.28E+17	7.09E+15	4.11E+08	0.	0.	0.	0.	0.	0.
Y-90	8.95E+18	4.38E+18	2.72E+18	8.28E+17	7.09E+15	4.11E+08	0.	0.	0.	0.	0.	0.
ZR-93	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.62E+14	5.60E+14	5.55E+14	5.38E+14	4.91E+14	3.58E+14
NB-91	7.65E+01	7.42E+01	7.27E+01	6.90E+01	5.63E+01	2.76B+01	3.59E+00	2.86E-03	4.01E-12	0.	0.	0.
NB-93M	4.19E+14	5.03E+14	5.21E+14	5.33E+14	5.35E+14	5.34E+14	5.34E+14	5.32E+14	5.28E+14	5.11E+14	4.67B+14	3.40E+14
NB-94	2.99E+14	2.98E+14	2.98E+14	2.98E+14	2.96E+14	2.89E+14	2.70E+14	2.12E+14	1.07E+14	9.82E+12	1.06E+10	4.43E-01
MO-93	7.07E+12	7.03E+12	7.00E+12	6.93E+12	6.66E+12	5.80E+12	3.90E+12	9.75E+11	1.85E+10	1.76E+04	0.	0.

CP-98 1.34E-09 1.27E-19 1.34E-15 1.34E-15 3.83E-15 3.83E-15 <t< th=""><th>Nuklid</th><th>1.1.2030</th><th>30 a</th><th>50 a</th><th>100 a</th><th>300 a</th><th>1'000 a</th><th>3'000 a</th><th>10'000 a</th><th>30'000 a</th><th>100'000a</th><th>300'000a</th><th>1 Mio a</th></t<>	Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RH-102	TC-98	1.34E+09	1.33E+09	1.32E+09	1.27E+09	1.13E+09							
Name	TC-99	3.83E+15	3.83E+15	3.83E+15	3.83E+15	3.83E+15	3.82E+15	3.79E+15	3.71E+15	3.47E+15	2.77E+15	1.44E+15	1.48E+14
NH-106	RU-106	7.55E+11	8.30E+02	8.84E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107 3.00E+13 3.00E+13 3.00E+13 3.00E+13 3.00E+13 3.00E+13 3.00E+13 3.00E+13 2.99E+13 2.91E+13 2.91E+13 2.70E+13 AG-108 2.32E+12 2.20E+12 2.00E+12 1.52E+12 5.0E+13 1.12E+10 2.03E+05 0.	RH-102	2.04E+11	1.56E+08	1.31E+06	8.48E+00	0.	0.	0.	0.	0.	0.	0.	0.
AG-108 2.33E+11 1.98E+11 1.78E+11 1.35E+11 4.54E+10 9.95E+08 1.81E+04 0. 0. 0. 0. 0. 0. 0. AG-108M 2.96E+07 2.32E+09 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	RH-106	7.55E+11	8.30E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-108M 2.62E+12 2.23E+12 2.00E+12 1.52E+12 5.10E+11 1.12E+10 2.03E+05 0. 0. 0. 0. 0. 0. 0. AG-109M 2.98E+07 2.32E+00 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	PD-107	3.00E+13	2.99E+13	2.97E+13	2.91E+13	2.70E+13							
AG-109M 2.98E+07 2.32E+09 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	AG-108	2.33E+11	1.98E+11	1.78E+11	1.35E+11	4.54E+10	9.95E+08	1.81E+04	0.	0.	0.	0.	0.
AG-110 5.70E+03 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	AG-108M	2.62E+12	2.23E+12	2.00E+12	1.52E+12	5.10E+11	1.12E+10	2.03E+05	0.	0.	0.	0.	0.
AG-110M 4.29E+05 2.68E-08 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	AG-109M	2.98E+07	2.32E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109 2.988+07 2.328+00 4.238+05 0. 0. 0. 0. 0. 0. 0.	AG-110	5.70E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	AG-110M	4.29E+05	2.68E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113M	CD-109	2.98E+07	2.32E+00	4.23E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
N-115	CD-113	1.85E+01											
SN-113 1.03E-06 0. 0. 0. 0. 0. 0. 0.	CD-113M	3.03E+15	6.58E+14	2.37E+14	1.86E+13	6.95E+08	2.22E-07	0.	0.	0.	0.	0.	0.
SN-119M 1.66E+08 9.15E-04 0. <td>IN-115</td> <td>4.29E+03</td>	IN-115	4.29E+03											
SN-121M 1.81E+14 1.24E+14 9.62E+13 5.12E+13 4.12E+12 6.08E+08 6.87E-03 0. 0. 0. 0. 0. 0. 0.	SN-113	1.03E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-123 7.72E-03 0.	SN-119M	1.66E+08	9.15E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126 2.01E+14 <	SN-121M	1.81E+14	1.24E+14	9.62E+13	5.12E+13	4.12E+12	6.08E+08	6.87E-03	0.	0.	0.	0.	0.
SB-125 1.72E+15 9.44E+11 6.33E+09 2.33E+04 0.	SN-123	7.72E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SB-126 2.82E+13 2.81E+13 2.81E+13 2.81E+13 2.81E+13 2.81E+13 2.79E+13 2.79E+13 2.63E+13 2.29E+13 1.41E+13 3.52E+12 2.75E+10 SB-126M 2.01E+14 2.01E+14 2.01E+14 2.01E+14 2.01E+14 2.00E+14 1.97E+14 1.86E+14 1.63E+14 1.01E+14 2.51E+13 1.97E+11 TE-123 7.29E+02	SN-126	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.00E+14	1.97E+14	1.88E+14	1.63E+14	1.01E+14	2.51E+13	1.97E+11
SB-126M 2.01E+14 2.01E+14 2.01E+14 2.01E+14 2.01E+14 2.01E+14 2.00E+14 1.97E+14 1.88E+14 1.63E+14 1.01E+14 2.51E+13 1.97E+11 TE-123 7.29E+02 7.29E+	SB-125	1.72E+15	9.44E+11	6.33E+09	2.33E+04	0.	0.	0.	0.	0.	0.	0.	0.
TE-123 7.29E+02 7.29E	SB-126	2.82E+13	2.81E+13	2.81E+13	2.81E+13	2.81E+13	2.79E+13	2.76E+13	2.63E+13	2.29E+13	1.41E+13	3.52E+12	2.75E+10
TE-123M	SB-126M	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.00E+14	1.97E+14	1.88E+14	1.63E+14	1.01E+14	2.51E+13	
TE-125M 4.19E+14 2.30E+11 1.54E+09 5.69E+03 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	TE-123	7.29E+02											
J-129 1.66E+11 1.1E+14 1.1E+14 1.14E+14 1.14E+14	TE-123M	2.36E-08	0.	0.	0.	0.	0.		0.	0.	0.	0.	0.
CS-134	TE-125M	4.19E+14	2.30E+11	1.54E+09	5.69E+03	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	J-129	1.66E+11	1.65E+11	1.64E+11	1.59E+11								
CS-137	CS-134	1.21E+15	5.03E+10	6.05E+07	3.04E+00	0.	0.	0.	0.	0.	0.	0.	0.
BA-133 9.97E+03 1.44E+03 3.96E+02 1.57E+01 3.89E-05 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. BA-137M 1.20E+19 6.00E+18 3.78E+18 1.19E+18 1.17E+16 1.11E+09 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	CS-135	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.14E+14	1.14E+14	1.14E+14	1.11E+14	1.05E+14	8.47E+13
BA-137M 1.20E+19 6.00E+18 3.78E+18 1.19E+18 1.17E+16 1.11E+09 0. 0. 0. 0. 0. 0. 0. 0. LA-138 3.13E+04	CS-137	1.27E+19	6.34E+18	4.00E+18	1.26E+18	1.24E+16	1.17E+09	0.	0.	0.	0.	0.	0.
LA-138 3.13E+04 3.13E	BA-133	9.97E+03	1.44E+03	3.96E+02	1.57E+01	3.89E-05	0.	0.	0.	0.	0.	0.	0.
CE-142 1.55E+04 1.55E	BA-137M	1.20E+19	6.00E+18	3.78E+18	1.19E+18	1.17E+16	1.11E+09	0.	0.	0.	0.	0.	0.
CE-144 3.42E+09 8.53E-03 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	LA-138	3.13E+04											
PR-144 3.42E+09 8.52E-03 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	CE-142	1.55E+04											
	CE-144	3.42E+09	8.53E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M 4.11E+07 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	PR-144	3.42E+09	8.52E-03	0.	0.	0.	0.	0.	0.	0.	0.		
	PR-144M	4.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	4.17E+05											
PM-145	3.89E+06	1.20E+06	5.49E+05	7.75E+04	3.08E+01	0.	0.	0.	0.	0.	0.	0.
PM-146	1.15E+13	2.62E+11	2.11E+10	3.86E+07	4.37E-04	0.	0.	0.	0.	0.	0.	0.
PM-147	1.00E+16	3.61E+12	1.83E+10	3.35E+04	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.60E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-146	4.56E+07	4.58E+07	4.55E+07									
SM-147	1.41E+09											
SM-148	1.30E+04											
SM-149	2.61E+02											
SM-151	7.53E+16	5.98E+16	5.12E+16	3.49E+16	7.47E+15	3.40E+13	6.95E+06	0.	0.	0.	0.	0.
EU-150	2.06E+09	1.12E+09	7.46E+08	2.71E+08	4.70E+06	3.24E+00	0.	0.	0.	0.	0.	0.
EU-152	3.49E+14	7.34E+13	2.59E+13	1.93E+12	5.86E+07	9.09E-09	0.	0.	0.	0.	0.	0.
EU-154	1.81E+17	1.71E+16	3.53E+15	6.88E+13	9.91E+06	0.	0.	0.	0.	0.	0.	0.
EU-155	1.72E+16	2.59E+14	1.58E+13	1.46E+10	1.06E-02	0.	0.	0.	0.	0.	0.	0.
GD-152	7.46E+02	7.56E+02	7.57E+02	7.58E+02								
GD-153	1.16E+05	2.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	9.51E+11	9.34E+11	9.24E+11	8.97E+11	7.99E+11	5.34E+11	1.68E+11	2.95E+09	2.84E+04	0.	0.	0.
TM-171	2.32E+06	4.59E+01	3.36E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	9.37E+03											
LU-177	3.35E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	1.46E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	1.89E+08	1.88E+08	1.85E+08	1.75E+08								
TA-180	3.65E+01											
TA-182	1.89E+08	1.88E+08	1.85E+08	1.75E+08								
W-181	5.56E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	2.38E+07											
OS-194	9.74E+03	3.04E+02	3.02E+01	9.37E-02	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	1.35E+07	1.24E+07	1.17E+07	1.01E+07	5.69E+06	7.61E+05	2.42E+03	4.36E-06	0.	0.	0.	0.
IR-192M	1.35E+07	1.24E+07	1.17E+07	1.01E+07	5.69E+06	7.60E+05	2.41E+03	4.35E-06	0.	0.	0.	0.
IR-194	9.75E+03	3.05E+02	3.02E+01	9.37E-02	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.83E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	1.31E+08	1.25E+08	1.22E+08	1.14E+08	8.62E+07	3.27E+07	2.04E+06	1.25E+02	1.12E-10	0.	0.	0.
TL-204	1.20E+12	5.03E+09	1.31E+08	1.43E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	4.09E+06	4.09E+06	4.09E+06	4.09E+06	4.09E+06	4.10E+06	4.15E+06	4.39E+06	5.01E+06	6.24E+06	6.29E+06	3.96E+06
TL-207	3.72E+09	4.87E+09	5.21E+09	5.53E+09	5.67E+09	5.90E+09	6.57E+09	9.13E+09	1.92E+10	5.66E+10	7.82E+10	7.86E+10
TL-208	8.93E+09	6.67E+09	5.51E+09	3.42E+09	5.37E+08	4.56E+07	4.48E+07	4.42E+07	4.27E+07	3.88E+07	3.37E+07	3.93E+07
TL-209	1.88E+06	2.56E+06	3.27E+06	5.99E+06	3.21E+07	3.61E+08	3.66E+09	3.73E+10	2.12E+11	8.23E+11	1.76E+12	2.00E+12

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PB-204	1.36E-01											
PB-205	3.54E+06	3.53E+06	3.52E+06	3.49E+06	3.37E+06							
PB-209	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
PB-210	1.26E+08	3.40E+08	5.04E+08	9.46E+08	2.88E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
PB-211	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PB-212	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
PB-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
BI-208	6.12E+06	6.12E+06	6.12E+06	6.11E+06	6.11E+06	6.11E+06	6.08E+06	6.00E+06	5.78E+06	5.07E+06	3.48E+06	9.30E+05
BI-210	1.26E+08	3.40E+08	5.04E+08	9.46E+08	2.88E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
BI-210M	4.10E+06	4.09E+06	4.07E+06	4.01E+06	3.83E+06	3.26E+06						
BI-211	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
BI-212	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
BI-213	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
BI-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
PO-210	1.23E+08	3.35E+08	4.99E+08	9.41E+08	2.87E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
PO-211	1.05E+07	1.37E+07	1.46E+07	1.55E+07	1.59E+07	1.66E+07	1.85E+07	2.56E+07	5.38E+07	1.59E+08	2.20E+08	2.21E+08
PO-212	1.59E+10	1.19E+10	9.82E+09	6.10E+09	9.58E+08	8.12E+07	7.99E+07	7.87E+07	7.60E+07	6.90E+07	6.01E+07	7.01E+07
PO-213	8.52E+07	1.16E+08	1.48E+08	2.71E+08	1.45E+09	1.64E+10	1.66E+11	1.69E+12	9.61E+12	3.73E+13	7.98E+13	9.05E+13
PO-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
PO-215	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PO-216	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
PO-218	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
AT-217	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
RN-219	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
RN-220	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
RN-222	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
FR-221	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
FR-223	5.16E+07	6.74E+07	7.22E+07	7.65E+07	7.85E+07	8.17E+07	9.10E+07	1.26E+08	2.65E+08	7.83E+08	1.08E+09	1.09E+09
RA-223	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
RA-224	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
RA-225	8.71E+07	1.18E+08	1.51E+08	2.78E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
RA-226	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
RA-228	6.44E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
AC-225	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
AC-227	3.74E+09	4.89E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
AC-228	6.44E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
TH-227	3.68E+09	4.82E+09	5.16E+09	5.47E+09	5.61E+09	5.84E+09	6.50E+09	9.03E+09	1.89E+10	5.59E+10	7.74E+10	7.77E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TH-228	2.48E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
TH-229	8.72E+07	1.18E+08	1.51E+08	2.78E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
TH-230	2.12E+10	2.17E+10	2.20E+10	2.28E+10	2.73E+10	4.74E+10	1.07E+11	3.04E+11	7.84E+11	1.75E+12	1.90E+12	5.51E+11
TH-231	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.17E+10	2.26E+10	2.81E+10	4.69E+10	7.45E+10	7.89E+10	7.88E+10
TH-232	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
TH-234	2.85E+11											
PA-231	5.60E+09	5.61E+09	5.62E+09	5.63E+09	5.70E+09	5.93E+09	6.60E+09	9.17E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PA-232	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.06E+06	1.03E+06	9.38E+05	6.86E+05	2.80E+05	1.23E+04
PA-233	5.57E+13	5.87E+13	6.07E+13	6.52E+13	8.03E+13	1.07E+14	1.19E+14	1.20E+14	1.19E+14	1.16E+14	1.09E+14	8.70E+13
PA-234	3.70E+08	3.71E+08	3.71E+08									
PA-234M	2.85E+11											
U-232	2.40E+10	1.80E+10	1.49E+10	9.21E+09	1.39E+09	6.17E+07	5.96E+07	5.77E+07	5.28E+07	3.86E+07	1.58E+07	6.90E+05
U-233	7.44E+09	1.49E+10	2.02E+10	3.39E+10	9.79E+10	3.91E+11	1.40E+12	4.97E+12	1.46E+13	4.18E+13	8.28E+13	9.23E+13
U-234	1.45E+12	1.66E+12	1.79E+12	2.08E+12	2.84E+12	3.36E+12	3.37E+12	3.31E+12	3.14E+12	2.63E+12	1.61E+12	4.67E+11
U-235	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.17E+10	2.26E+10	2.81E+10	4.69E+10	7.45E+10	7.89E+10	7.88E+10
U-236	2.61E+11	2.63E+11	2.64E+11	2.68E+11	2.81E+11	3.26E+11	4.36E+11	6.81E+11	8.76E+11	9.01B+11	8.96E+11	8.78E+11
U-237	4.40E+11	1.05E+11	4.05E+10	4.48E+09	9.03E+08	8.53E+08	7.25E+08	4.09E+08	8.01E+07	2.66E+05	2.19E-02	0.
U-238	2.85E+11											
U-240	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
NP-235	7.44E+03	3.50E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	6.70E+08	6.70E+08	6.70E+08	6.70E+08	6.70E+08	6.67E+08	6.61E+08	6.41E+08	5.86E+08	4.29E+08	1.75E+08	7.66E+06
NP-237	5.57E+13	5.87E+13	6.07E+13	6.52E+13	8.03E+13	1.07E+14	1.19E+14	1.20E+14	1.19E+14	1.16E+14	1.09E+14	8.70E+13
NP-238	9.91E+12	8.55E+12	7.75E+12	6.06E+12	2.27E+12	7.26E+10	3.90E+06	0.	0.	0.	0.	0.
NP-239	4.62E+15	4.60E+15	4.60E+15	4.57E+15	4.49E+15	4.20E+15	3.48E+15	1.80E+15	2.76E+14	3.85E+11	1.21E+07	1.17E+07
NP-240M	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
PU-236	2.57E+08	5.94E+07	5.92E+07	5.92E+07	5.92E+07	5.90E+07	5.85E+07	5.67E+07	5.18E+07	3.79E+07	1.55E+07	6.77E+05
PU-238	2.54E+15	2.35E+15	2.22E+15	1.90E+15	8.79E+14	3.40E+13	1.87E+09	2.12E-06	0.	0.	0.	0.
PU-239	2.65E+14	2.70E+14	2.73E+14	2.79E+14	3.04E+14	3.85E+14	5.78E+14	9.33E+14	8.51E+14	1.29E+14	4.08E+11	1.17E+07
PU-240	1.71E+15	2.11E+15	2.20E+15	2.27E+15	2.23E+15	2.07E+15	1.68E+15	7.98E+14	9.57E+13	5.72E+10	3.24E+05	3.62E+05
PU-241	1.79E+16	4.26E+15	1.65E+15	1.83E+14	3.69E+13	3.48E+13	2.96E+13	1.67E+13	3.27E+12	1.08E+10	8.94E+02	0.
PU-242	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.24E+12	1.25E+12	1.22E+12	1.07E+12	7.40E+11	2.04E+11
PU-243	1.22E+07	1.21E+07	1.17E+07									
PU-244	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.83E+05	2.84E+05	2.88E+05	3.00E+05	3.26E+05	3.63E+05
PU-246	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.28E-01	3.10E-01	2.66E-01	1.55E-01	3.33E-02	1.51E-04	0.	0.
AM-241	3.18E+17	3.04E+17	2.94E+17	2.72E+17	1.97E+17	6.42E+16	2.63E+15	1.76E+13	3.45E+12	1.14E+10	9.42E+02	0.
AM-242	2.15E+15	1.85E+15	1.68E+15	1.31E+15	4.91E+14	1.57E+13	8.45E+08	0.	0.	0.	0.	0.
AM-242M	2.16E+15	1.86E+15	1.69E+15	1.32E+15	4.94E+14	1.58E+13	8.50E+08	9.65E-07	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AM-243	4.62E+15	4.60E+15	4.60E+15	4.57E+15	4.49E+15	4.20E+15	3.48E+15	1.80E+15	2.76E+14	3.85E+11	1.21E+07	1.17E+07
AM-245	1.95E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.28E-01	3.10E-01	2.66E-01	1.55E-01	3.32E-02	1.42E-04	0.	0.
CM-242	1.78E+15	1.54E+15	1.39E+15	1.09E+15	4.08E+14	1.31E+13	7.02E+08	7.97E-07	0.	0.	0.	0.
CM-243	1.81E+15	8.72E+14	5.36E+14	1.59E+14	1.23E+12	4.96E+04	0.	0.	0.	0.	0.	0.
CM-244	2.12E+17	6.73E+16	3.13E+16	4.62E+15	2.19E+12	5.07E+00	0.	0.	0.	0.	0.	0.
CM-245	3.77E+13	3.76E+13	3.76E+13	3.74E+13	3.68E+13	3.48E+13	2.95E+13	1.67E+13	3.26E+12	1.08E+10	8.92E+02	0.
CM-246	4.84E+12	4.82E+12	4.80E+12	4.77E+12	4.63E+12	4.18E+12	3.12E+12	1.12E+12	5.97E+10	2.10E+06	3.95E-07	0.
CM-247	1.22E+07	1.21E+07	1.17E+07									
CM-248	2.55E+07	2.55E+07	2.55E+07	2.55E+07	2.55E+07	2.54E+07	2.53E+07	2.50E+07	2.40E+07	2.08E+07	1.38E+07	3.30E+06
CM-250	4.19E+00	4.18E+00	4.17E+00	4.16E+00	4.09E+00	3.88E+00	3.33E+00	1.94E+00	4.16E-01	1.89E-03	3.87E-10	0.
BK-249	1.37E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	1.30E+00	1.30E+00	1.29E+00	1.29E+00	1.27E+00	1.20E+00	1.03E+00	6.01E-01	1.29E-01	5.87E-04	0.	0.
CF-249	2.27E+08	2.14E+08	2.06E+08	1.86E+08	1.25E+08	3.14E+07	6.01E+05	5.84E-01	0.	0.	0.	0.
CF-250	1.99E+08	4.07E+07	1.41E+07	9.97E+05	2.62E+01	1.20E+00	1.03E+00	6.02E-01	1.29E-01	5.88E-04	1.13E-10	0.
CF-251	6.25E+06	6.10E+06	6.01E+06	5.78E+06	4.96E+06	2.89E+06	6.17E+05	2.78E+03	5.49E-04	0.	0.	0.
CF-252	3.08E+05	1.16E+02	6.08E-01	1.20E-06	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	3.37E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	4.37E+19	2.18E+19	1.38E+19	4.54E+18	2.88E+17	8.37E+16	2.01E+16	1.32E+16	8.61E+15	5.76E+15	3.71E+15	1.98E+15

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Alpha-Aktivität in [Bq], Herkunftskategorie Wiederaufarbeitung (W)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
CE-142	1.55E+04											
ND-144	4.17E+05											
SM-146	4.56E+07	4.58E+07	4.55E+07									
SM-147	1.41E+09											
SM-148	1.30E+04											
SM-149	2.61E+02											
GD-152	7.46E+02	7.56E+02	7.57E+02	7.58E+02								
PB-204	1.36E-01											
BI-210	1.64E+02	4.41E+02	6.55E+02	1.23E+03	3.74E+03	1.52E+04	6.70E+04	3.11E+05	9.53E+05	2.25E+06	2.48E+06	7.18E+05
BI-210M	4.09E+06	4.09E+06	4.09E+06	4.09E+06	4.09E+06	4.08E+06	4.08E+06	4.08E+06	4.06E+06	3.99E+06	3.81E+06	3.24E+06
BI-211	3.72E+09	4.87E+09	5.21E+09	5.53E+09	5.67E+09	5.91E+09	6.57E+09	9.13E+09	1.92E+10	5.66E+10	7.82E+10	7.86E+10
BI-212	8.93E+09	6.67E+09	5.51E+09	3.42E+09	5.37E+08	4.56E+07	4.48E+07	4.42E+07	4.27E+07	3.88E+07	3.37E+07	3.93E+07
BI-213	1.88E+06	2.56E+06	3.27E+06	5.99E+06	3.21E+07	3.61E+08	3.66E+09	3.73E+10	2.12E+11	8.23E+11	1.76E+12	2.00E+12
BI-214	6.74E+04	1.25E+05	1.63E+05	2.60E+05	6.74E+05	2.56E+06	1.10E+07	5.05E+07	1.54E+08	3.63E+08	4.00E+08	1.16E+08
PO-210	1.23E+08	3.35E+08	4.99E+08	9.41E+08	2.87E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
PO-211	1.05E+07	1.37E+07	1.46E+07	1.55E+07	1.59E+07	1.66E+07	1.85E+07	2.56E+07	5.38E+07	1.59E+08	2.20E+08	2.21E+08
PO-212	1.59E+10	1.19E+10	9.82E+09	6.10E+09	9.58E+08	8.12E+07	7.99E+07	7.87E+07	7.60E+07	6.90E+07	6.01E+07	7.01E+07
PO-213	8.52E+07	1.16E+08	1.48E+08	2.71E+08	1.45E+09	1.64E+10	1.66E+11	1.69E+12	9.61E+12	3.73E+13	7.98E+13	9.05E+13
PO-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
PO-215	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PO-216	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
PO-218	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
AT-217	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
RN-219	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
RN-220	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
RN-222	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
FR-221	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
FR-223	3.10E+03	4.05E+03	4.33E+03	4.59E+03	4.71E+03	4.90E+03	5.46E+03	7.58E+03	1.59E+04	4.70E+04	6.49E+04	6.53E+04
RA-223	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
RA-224	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
RA-226	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
AC-225	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
		6.74E+07	7.22E+07	7.65E+07	7.85E+07	8.17E+07	9.10E+07	1.26E+08	2.65E+08	7.83E+08	1.08E+09	1.09E+09
AC-227	5.16E+07			5.47E+09	5.61E+09	5.84E+09	6.50E+09	9.03E+09	1.89E+10	5.59E+10	7.74E+10	7.77E+10
TH-227	3.68E+09	4.82E+09	5.16E+09		1.50E+09		1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
TH-228	2.48E+10	1.86E+10	1.53E+10	9.52E+09		1.27E+08		1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
TH-229	8.72E+07	1.18E+08	1.51E+08	2.78E+08	1.49E+09	1.67E+10	1.69E+11					5.51E+11
TH-230	2.12E+10	2.17E+10	2.20E+10	2.28E+10	2.73E+10	4.74E+10	1.07E+11	3.04E+11	7.84E+11	1.75E+12	1.90E+12	
TH-232	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
PA-231	5.60E+09	5.61E+09	5.62E+09	5.63E+09	5.70E+09	5.93E+09	6.60E+09	9.17E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
U-232	2.40E+10	1.80E+10	1.49E+10	9.21E+09	1.39E+09	6.17E+07	5.96E+07	5.77E+07	5.28E+07	3.86E+07	1.58E+07	6.90E+05
U-233	7.44E+09	1.49E+10	2.02E+10	3.39E+10	9.79E+10	3.91E+11	1.40E+12	4.97E+12	1.46E+13	4.18E+13	8.28E+13	9.23E+13
U-234	1.45E+12	1.66E+12	1.79E+12	2.08E+12	2.84E+12	3.36E+12	3.37E+12	3.31E+12	3.14E+12	2.63E+12	1.61E+12	4.67E+11
U-235	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.17E+10	2.26E+10	2.81E+10	4.69E+10	7.45E+10	7.89E+10	7.88E+10
U-236	2.61E+11	2.63E+11	2.64E+11	2.68E+11	2.81E+11	3.26E+11	4.36E+11	6.81E+11	8.76E+11	9.01E+11	8.96E+11	8.78E+11
U-238	2.85E+11											
NP-235	1.04E-01	4.89E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.06E+06	1.03E+06	9.38E+05	6.86E+05	2.80E+05	1.23E+04
NP-237	5.57E+13	5.87E+13	6.07E+13	6.52E+13	8.03E+13	1.07E+14	1.19E+14	1.20E+14	1.19E+14	1.16E+14	1.09E+14	8.70E+13
PU-236	2.57E+08	5.94E+07	5.92E+07	5.92E+07	5.92E+07	5.90E+07	5.85E+07	5.67E+07	5.18E+07	3.79E+07	1.55E+07	6.77E+05
PU-238	2.54E+15	2.35E+15	2.22E+15	1.90E+15	8.79E+14	3.40E+13	1.87E+09	2.12E-06	0.	0.	0.	0.
PU-239	2.65E+14	2.70E+14	2.73E+14	2.79E+14	3.04E+14	3.85E+14	5.78E+14	9.33E+14	8.51E+14	1.29E+14	4.08E+11	1.17E+07
PU-240	1.71E+15	2.11E+15	2.20E+15	2.27E+15	2.23E+15	2.07E+15	1.68E+15	7.98E+14	9.57E+13	5.72E+10	3.24E+05	3.62E+05
PU-241	4.39E+11	1.04E+11	4.04E+10	4.48E+09	9.03E+08	8.53E+08	7.25E+08	4.09E+08	8.01E+07	2.66E+05	2.19E-02	0.
PU-242	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.24E+12	1.25E+12	1.22E+12	1.07E+12	7.40E+11	2.04E+11
PU-244	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
AM-241	3.18E+17	3.04E+17	2.94E+17	2.72E+17	1.97E+17	6.42E+16	2.63E+15	1.76E+13	3.45E+12	1.14E+10	9.42E+02	0.
AM-242M	9.91E+12	8.55E+12	7.75E+12	6.06E+12	2.27E+12	7.26E+10	3.90E+06	4.43E-09	0.	0.	0.	0.
AM-243	4.62E+15	4.60E+15	4.60E+15	4.57E+15	4.49E+15	4.20E+15	3.48E+15	1.80E+15	2.76E+14	3.85E+11	1.21E+07	1.17E+07
CM-242	1.78E+15	1.54E+15	1.39E+15	1.09E+15	4.08E+14	1.31E+13	7.02E+08	7.97E-07	0.	0.	0.	0.
CM-243	1.80E+15	8.70E+14	5.35E+14	1.58E+14	1.22E+12	4.94E+04	0.	0.	0.	0.	0.	0.
CM-244	2.12E+17	6.73E+16	3.13E+16	4.62E+15	2.19E+12	5.07E+00	0.	0.	0.	0.	0.	0.
CM-245	3.77E+13	3.76E+13	3.76E+13	3.74E+13	3.68E+13	3.48E+13	2.95E+13	1.67E+13	3.26E+12	1.08E+10	8.92E+02	0.
CM-246	4.83E+12	4.81E+12	4.80E+12	4.76E+12	4.63E+12	4.18E+12	3.11E+12	1.12E+12	5.96E+10	2.10E+06	3.95E-07	0.
CM-247	1.22E+07	1.21E+07	1.17E+07									
CM-248	2.34E+07	2.34E+07	2.34E+07	2.34E+07	2.34E+07	2.33E+07	2.32E+07	2.29E+07	2.20E+07	1.91E+07	1.27E+07	3.03E+06
CM-250	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.27E-01	3.10E-01	2.66E-01	1.55E-01	3.33E-02	1.52E-04	3.10E-11	0.
BK-249	1.98E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CF-249	2.27E+08	2.14E+08	2.06E+08	1.86E+08	1.25E+08	3.14E+07	6.01E+05	5.84E-01	0.	0.	0.	0.
OF 545	2.2.2.	21222100	2.002.00							-	-	-

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
										- 00D 04	1 120 10	^
CF-250	1.99E+08	4.06E+07	1.41E+07	9.96E+05	2.61E+01	1.20E+00	1.03E+00	6.02E-01	1.295-01	5.88E-04	1.13E-10	0.
CF-251	6.25E+06	6.10E+06	6.01E+06	5.78E+06	4.96E+06	2.89E+06	6.17E+05	2.78E+03	5.49E-04	0.	0.	0.
CF-252	2.99E+05	1.13E+02	5.89E-01	1.16E-06	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	3.37E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	5.43E+17	3.83E+17	3.37E+17	2.87E+17	2.06E+17	7.10E+16	8.52E+15	3.71E+15	1.42E+15	4.94E+14	6.16E+14	6.48E+14

W S 1 0 0 4

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Beta/Gamma-Aktivität in [Bq], Herkunftskategorie Wiederaufarbeitung (W)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.53E+16	6.55E+15	2.13E+15	1.29E+14	1.72E+09	1.48E-08	0.	0.	0.	0.	0.	0.
BE-10	1.30E+09	1.29E+09	1.28E+09	1.25E+09	1.14E+09	8.43E+08						
C-14	2.72E+14	2.71E+14	2.71E+14	2.69E+14	2.63E+14	2.41E+14	1.90E+14	8.13E+13	7.23E+12	1.52E+09	4.73E-02	0.
NA-22	1.15E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SI-32	1.72E+07	1.65E+07	1.60E+07	1.48E+07	1.09E+07	3.69E+06	1.70E+05	3.52E+00	0.	0.	0.	0.
P-32	1.72E+07	1.65E+07	1.60E+07	1.48E+07	1.09E+07	3.69E+06	1.70E+05	3.52E+00	0.	0.	0.	0.
CL-36	1.00E+12	1.00E+12	1.00E+12	1.00E+12	9.99E+11	9.98E+11	9.93E+11	9.77E+11	9.33E+11	7.94E+11	5.01E+11	1.00E+11
AR-39	2.65E+09	2.46E+09	2.33E+09	2.05E+09	1.23E+09	2.02E+08	1.17E+06	1.71E-02	0.	0.	0.	0.
AR-42	1.53E+00	8.16E-01	5.36E-01	1.88E-01	2.81E-03	1.16E-09	0.	0.	0.	0.	0.	0.
K-40	1.06E+06											
K-42	1.53E+00	8.16E-01	5.36E-01	1.88E-01	2.81E-03	0.	0.	0.	0.	0.	0.	0.
CA-41	6.45E+10	6.45E+10	6.45E+10	6.44E+10	6.44E+10	6.40E+10	6.32E+10	6.03E+10	5.26E+10	3.27E+10	8.40E+09	7.21E+07
CA-45	3.00E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	4.84E+00											
MN-54	1.86E+08	5.19E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.50E+15	6.77E+11	3.99E+09	1.06E+04	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	2.13E+16	4.12E+14	2.97E+13	4.14E+10	1.56E-01	0.	0.	0.	0.	0.	0.	0.
NI-59	2.07E+15	2.07E+15	2.07E+15	2.07E+15	2.07E+15	2.06E+15	2.02E+15	1.89E+15	1.57E+15	8.23E+14	1.30E+14	2.01E+11
NI-63	2.04E+17	1.65E+17	1.42E+17	9.93E+16	2.34E+16	1.49E+14	8.00E+07	0.	0.	0.	0.	0.
ZN-65	7.47E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	2.45E+13	2.45E+13	2.45E+13	2.45E+13	2.44E+13	2.44E+13	2.43E+13	2.39E+13	2.28E+13	1.93E+13	1.21E+13	2.33E+12
KR-81	3.98E+05	3.98E+05	3.98E+05	3.97E+05	3.97E+05	3.96E+05	3.94E+05	3.85E+05	3.60E+05	2.86E+05	1.48E+05	1.46E+04
KR-85	7.61E+14	1.09E+14	3.00E+13	1.18E+12	2.87E+06	0.	0.	0.	0.	0.	0.	0.
RB-87	5.91E+09											
SR-90	8.95E+18	4.38E+18	2.72E+18	8.28E+17	7.09E+15	4.11E+08	0.	0.	0.	0.	0.	0.
Y-90	8.95E+18	4.38E+18	2.72E+18	8.28E+17	7.09E+15	4.11E+08	0.	0.	0.	0.	0.	0.
ZR-93	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.62E+14	5.60E+14	5.55E+14	5.38E+14	4.91E+14	3.58E+14
NB-91	7.65E+01	7.42E+01	7.27E+01	6.90E+01	5.63E+01	2.76E+01	3.59E+00	2.86E-03	4.01E-12	0.	0.	0.
NB-93M	4.19E+14	5.03E+14	5.21E+14	5.33E+14	5.35E+14	5.34E+14	5.34E+14	5.32E+14	5.28E+14	5.11E+14	4.67E+14	3.40E+14
NB-94	2.99E+14	2.98E+14	2.98E+14	2.98E+14	2.96E+14	2.89E+14	2.70E+14	2.12E+14	1.07E+14	9.82E+12	1.06E+10	4.43E-01
MO-93	7.07E+12	7.03E+12	7.00E+12	6.93E+12	6.66E+12	5.80E+12	3.90E+12	9.75E+11	1.85E+10	1.76E+04	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TC-98	1.34E+09	1.33E+09	1.32E+09	1.27E+09	1.13E+09							
TC-99	3.83E+15	3.83E+15	3.83E+15	3.83E+15	3.83E+15	3.82E+15	3.79E+15	3.71E+15	3.47E+15	2.77E+15	1.44E+15	1.48E+14
RU-106	7.55E+11	8.30E+02	8.84E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-102	2.04E+11	1.56E+08	1.31E+06	8.48E+00	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	7.55E+11	8.30E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	3.00E+13	2.99E+13	2.97E+13	2.91E+13	2.70E+13							
AG-108	2.33E+11	1.98E+11	1.78E+11	1.35E+11	4.54E+10	9.95E+08	1.81E+04	0.	0.	0.	0.	0.
AG-108M	2.62E+12	2.23E+12	2.00E+12	1.52E+12	5.10E+11	1.12E+10	2.03E+05	0.	0.	0.	0.	0.
AG-109M	2.98E+07	2.32E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	5.70E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	4.29E+05	2.68E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	2.98E+07	2.32E+00	4.23E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	1.85E+01											
CD-113M	3.03E+15	6.58E+14	2.37E+14	1.86E+13	6.95E+08	2.22E-07	0.	0.	0.	0.	0.	0.
IN-115	4.29E+03											
SN-113	1.03E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	1.66E+08	9.15E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121M	1.81E+14	1.24E+14	9.62E+13	5.12E+13	4.12E+12	6.08E+08	6.87E-03	0.	0.	0.	0.	0.
SN-123	7.72E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.00E+14	1.97E+14	1.88E+14	1.63E+14	1.01E+14	2.51E+13	1.97E+11
SB-125	1.72E+15	9.44E+11	6.33E+09	2.33E+04	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	2.82E+13	2.81E+13	2.81E+13	2.81E+13	2.81E+13	2.79E+13	2.76E+13	2.63E+13	2.29E+13	1.41E+13	3.52E+12	2.75E+10
SB-126M	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.00E+14	1.97E+14	1.88E+14	1.63E+14	1.01E+14	2.51E+13	1.97E+11
TE-123	7.29E+02											
TE-123M	2.36E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	4.19E+14	2.30E+11	1.54E+09	5.69E+03	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.66E+11	1.65E+11	1.64E+11	1.59E+11								
CS-134	1.21E+15	5.03E+10	6.05E+07	3.04E+00	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.14E+14	1.14E+14	1.14E+14	1.11E+14	1.05E+14	8.47E+13
CS-137	1.27E+19	6.34E+18	4.00E+18	1.26E+18	1.24E+16	1.17E+09	0.	0.	0.	0.	0.	0.
BA-133	9.97E+03	1.44E+03	3.96E+02	1.57E+01	3.89E-05	0.	0.	0.	0.	0.	0.	0.
BA-137M	1.20E+19	6.00E+18	3.78E+18	1.19E+18	1.17E+16	1.11E+09	0.	0.	0.	0.	0.	0.
LA-138	3.13E+04											
CE-144	3.42E+09	8.53E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.42E+09	8.52E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PM-145	3.89E+06	1.20E+06	5.49E+05	7.75E+04	3.08E+01	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PM-146	1.15E+13	2.62E+11	2.11E+10	3.86E+07	4.37E-04	0.	0.	0.	0.	0.	0.	0.
PM-147	1.00E+16	3.61E+12	1.83E+10	3.35E+04	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.60E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-151	7.53E+16	5.98E+16	5.12E+16	3.49E+16	7.47E+15	3.40E+13	6.95E+06	0.	0.	0.	0.	0.
EU-150	2.06E+09	1.12E+09	7.46E+08	2.71E+08	4.70E+06	3.24E+00	0.	0.	0.	0.	0.	0.
EU-152	3.49E+14	7.34E+13	2.59E+13	1.93E+12	5.86E+07	9.09E-09	0.	0.	0.	0.	0.	0.
EU-154	1.81E+17	1.71E+16	3.53E+15	6.88E+13	9.91E+06	0.	0.	0.	0.	0.	0.	0.
EU-155	1.72E+16	2.59E+14	1.58E+13	1.46E+10	1.06E-02	0.	0.	0.	0.	0.	0.	0.
GD-153	1.16E+05	2.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	9.51E+11	9.34E+11	9.24E+11	8.97E+11	7.99E+11	5.34E+11	1.68E+11	2.95E+09	2.84E+04	0.	0.	0.
TM-171	2.32E+06	4.59E+01	3.36E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	9.37E+03											
LU-177	3.35E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	1.46E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	1.89E+08	1.88E+08	1.85E+08	1.75E+08								
TA-180	3.65E+01											
TA-182	1.89E+08	1.88E+08	1.85E+08	1.75E+08								
W-181	5.56E-08	0.	0.	0.	0.	0.	0.	0.	0.	0 -	0.	0.
RE-187	2.38E+07											
OS-194	9.74E+03	3.04E+02	3.02E+01	9.37E-02	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	1.35E+07	1.24E+07	1.17E+07	1.01E+07	5.69E+06	7.61E+05	2.42E+03	4.36E-06	0.	0.	0.	0.
IR-192M	1.35E+07	1.24E+07	1.17E+07	1.01E+07	5.69E+06	7.60E+05	2.41E+03	4.35E-06	0.	0.	0.	0.
IR-194	9.75E+03	3.05E+02	3.02E+01	9.37E-02	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.83E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	1.31E+08	1.25E+08	1.22E+08	1.14E+08	8.62E+07	3.27E+07	2.04E+06	1.25E+02	1.12E-10	0.	0.	0.
TL-204	1.20E+12	5.03E+09	1.31E+08	1.43E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	4.09E+06	4.09E+06	4.09E+06	4.09E+06	4.09E+06	4.10E+06	4.15E+06	4.39E+06	5.01E+06	6.24E+06	6.29E+06	3.96E+06
TL-207	3.72E+09	4.87E+09	5.21E+09	5.53E+09	5.67E+09	5.90E+09	6.57E+09	9.13E+09	1.92E+10	5.66E+10	7.82E+10	7.86E+10
TL-208	8.93E+09	6.67E+09	5.51E+09	3.42E+09	5.37E+08	4.56E+07	4.48E+07	4.42E+07	4.27E+07	3.88E+07	3.37E+07	3.93E+07
TL-209	1.88E+06	2.56E+06	3.27E+06	5.99E+06	3.21E+07	3.61E+08	3.66E+09	3.73E+10	2.12E+11	8.23E+11	1.76E+12	2.00E+12
PB-205	3.54E+06	3.53E+06	3.52E+06	3.49E+06	3.37E+06							
PB-209	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
PB-210	1.26E+08	3.40E+08	5.04E+08	9.46E+08	2.88E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
PB-211	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PB-212	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
PB-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
BI-208	6.12E+06	6.12E+06	6.12E+06	6.11E+06	6.11E+06	6.11E+06	6.08E+06	6.00E+06	5.78E+06	5.07E+06	3.48E+06	9.30E+05

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BI-210	1.26E+08	3.40E+08	5.04E+08	9.46E+08	2.88E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
BI-210M	1.64E+04	1.63E+04	1.60E+04	1.53E+04	1.30E+04							
BI-211	1.05E+07	1.37E+07	1.46E+07	1.55E+07	1.59E+07	1.66E+07	1.85E+07	2.56E+07	5.38E+07	1.59E+08	2.20E+08	2.21E+08
BI-212	1.59E+10	1.19E+10	9.82E+09	6.10E+09	9.58E+08	8.13E+07	7.99E+07	7.89E+07	7.62E+07	6.91E+07	6.02E+07	7.01E+07
BI-213	8.52E+07	1.16E+08	1.48E+08	2.71E+08	1.45E+09	1.64E+10	1.66E+11	1.69E+12	9.61E+12	3.73E+13	7.98E+13	9.05E+13
BI-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
PO-218	6.43E+04	1.19E+05	1.55E+05	2.48E+05	6.42E+05	2.44E+06	1.05E+07	4.81E+07	1.47E+08	3.46E+08	3.81E+08	1.11E+08
FR-223	5.16E+07	6.74E+07	7.21E+07	7.65E+07	7.85E+07	8.17E+07	9.10E+07	1.26E+08	2.65E+08	7.83E+08	1.08E+09	1.09E+09
RA-225	8.71E+07	1.18E+08	1.51E+08	2.78E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
RA-228	6.44E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
AC-227	3.69E+09	4.82E+09	5.16E+09	5.47E+09	5.61E+09	5.84E+09	6.50E+09	9.03E+09	1.89E+10	5.59E+10	7.73E+10	7.77E+10
AC-228	6.44E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
TH-231	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.17E+10	2.26E+10	2.81E+10	4.69E+10	7.45E+10	7.89E+10	7.88E+10
TH-234	2.85E+11											
PA-232	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.06E+06	1.03E+06	9.38E+05	6.86E+05	2.80E+05	1.23E+04
PA-233	5.57E+13	5.87E+13	6.07E+13	6.52E+13	8.03E+13	1.07E+14	1.19E+14	1.20E+14	1.19E+14	1.16E+14	1.09E+14	8.70E+13
PA-234	3.70E+08	3.71E+08	3.71E+08									
PA-234M	2.85E+11											
U-237	4.40E+11	1.05E+11	4.05E+10	4.48E+09	9.03E+08	8.53E+08	7.25E+08	4.09E+08	8.01E+07	2.66E+05	2.19E-02	0.
U-240	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
NP-235	7.44E+03	3.50E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	6.69E+08	6.69E+08	6.69E+08	6.69E+08	6.68E+08	6.66E+08	6.60E+08	6.40E+08	5.85E+08	4.28E+08	1.75E+08	7.65E+06
NP-238	9.91E+12	8.55E+12	7.75E+12	6.06E+12	2.27E+12	7.26E+10	3.90E+06	0.	0.	0.	0.	0.
NP-239	4.62E+15	4.60E+15	4.60E+15	4.57E+15	4.49E+15	4.20E+15	3.48E+15	1.80E+15	2.76E+14	3.85E+11	1.21E+07	1.17E+07
NP-240M	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
PU-241	1.79E+16	4.26E+15	1.65E+15	1.83E+14	3.69E+13	3.48E+13	2.96E+13	1.67E+13	3.27E+12	1.08E+10	8.94E+02	0.
PU-243	1.22E+07	1.21E+07	1.17E+07									
PU-244	3.67E+02	3.67E+02	3.67E+02	3.67E+02	3.67E+02	3.67E+02	3.68E+02	3.70E+02	3.74E+02	3.90E+02	4.23E+02	4.72E+02
PU-246	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.28E-01	3.10E-01	2.66E-01	1.55E-01	3.33E-02	1.51E-04	0.	0.
AM-242	2.15E+15	1.85E+15	1.68E+15	1.31E+15	4.91E+14	1.57E+13	8.45E+08	0.	0.	0.	0.	0.
AM-242M	2.15E+15	1.85E+15	1.68E+15	1.31E+15	4.92E+14	1.57E+13	8.46E+08	9.61E-07	0.	0.	0.	0.
AM-245	1.95E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.28E-01	3.10E-01	2.66E-01	1.55E-01	3.32E-02	1.42E-04	0.	0.
CM-243	4.34E+12	2.09E+12	1.29E+12	3.81E+11	2.94E+09	1.19E+02	0.	0.	0.	0.	0.	0.
CM-246	1.45E+09	1.44E+09	1.44E+09	1.43E+09	1.39E+09	1.25E+09	9.35E+08	3.35E+08	1.79E+07	6.29E+02	1.19E-10	0.
CM-248	2.10E+06	2.10E+06	2.10E+06	2.10E+06	2.10E+06	2.10E+06	2.09E+06	2.06E+06	1.98E+06	1.72E+06	1.14E+06	2.73E+05
CM-250	3.85E+00	3.85E+00	3.84E+00	3.82E+00	3.77E+00	3.57E+00	3.06E+00	1.78E+00	3.82E-01	1.74E-03	3.56E-10	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BK-249	1.37E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	1.30E+00	1.30E+00	1.29E+00	1.29E+00	1.27E+00	1.20E+00	1.03E+00	6.01E-01	1.29E-01	5.87E-04	0.	0.
CF-250	1.60E+05	3.25E+04	1.13E+04	7.97E+02	2.09E-02	9.64E-04	8.26E-04	4.82E-04	1.03E-04	4.70E-07	9.03E-14	0.
CF-252	9.53E+03	3.60E+00	1.88E-02	3.70E-08	0.	0.	0.	0.	0.	0.	0.	0.
Summe	4.32E+19	2.14E+19	1.34E+19	4.26E+18	8.29E+16	1.27E+16	1.16E+16	9.51E+15	7.19E+15	5.26E+15	3.09E+15	1.33E+15

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Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktiniden in [Bq], Herkunftskategorie Wiederaufarbeitung (W)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TL-206	1.64E+02	4.41E+02	6.55E+02	1.23E+03	3.74E+03	1.52E+04	6.70E+04	3.11E+05	9.53E+05	2.25E+06	2.48E+06	7.18E+05
TL-207	3.72E+09	4.87E+09	5.21E+09	5.53E+09	5.67E+09	5.90E+09	6.57E+09	9.13E+09	1.92E+10	5.66E+10	7.82E+10	7.86E+10
TL-208	8.93E+09	6.67E+09	5.51E+09	3.42E+09	5.37E+08	4.56E+07	4.48E+07	4.42E+07	4.27E+07	3.88E+07	3.37E+07	3.93E+07
TL-209	1.88E+06	2.56E+06	3.27E+06	5.99E+06	3.21E+07	3.61E+08	3.66E+09	3.73E+10	2.12E+11	8.23E+11	1.76E+12	2.00E+12
PB-209	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
PB-210	1.26E+08	3.40E+08	5.04E+08	9.46E+08	2.88E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
PB-211	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PB-212	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
PB-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
BI-208	3.63E-04	3.63E-04	3.63E-04	3.63E-04	3.63E-04	3.63E-04	3.61E-04	3.56E-04	3.43E-04	3.01B-04	2.06E-04	5.52E-05
BI-210	1.26E+08	3.40E+08	5.04E+08	9.46E+08	2.88E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
BI-210M	6.96E-04	6.96E-04	6.96E-04	6.96E-04	6.96E-04	6.96E-04	6.95E-04	6.94E-04	6.91E-04	6.80E-04	6.49E-04	5.52E-04
BI-211	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
BI-212	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
BI-213	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
BI-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
PO-210	1.23E+08	3.35E+08	4.99E+08	9.41E+08	2.87E+09	1.17E+10	5.15E+10	2.40E+11	7.33E+11	1.73E+12	1.91E+12	5.52E+11
PO-211	1.05E+07	1.37E+07	1.46E+07	1.55E+07	1.59E+07	1.66E+07	1.85E+07	2.56E+07	5.38E+07	1.59E+08	2.20E+08	2.21E+08
PO-212	1.59E+10	1.19E+10	9.82E+09	6.10E+09	9.58E+08	8.12E+07	7.99E+07	7.87E+07	7.60E+07	6.90E+07	6.01E+07	7.01E+07
PO-213	8.52E+07	1.16E+08	1.48E+08	2.71E+08	1.45E+09	1.64E+10	1.66E+11	1.69E+12	9.61E+12	3.73E+13	7.98E+13	9.05E+13
PO-214	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.40E+11	7.34E+11	1.73E+12	1.91E+12	5.52E+11
PO-215	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PO-216	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
PO-218	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
AT-217	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
RN-219	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
RN-220	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
RN-222	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
FR-221	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
FR-223	5.16E+07	6.74E+07	7.22E+07	7.65E+07	7.85E+07	8.17E+07	9.10E+07	1.26E+08	2.65E+08	7.83E+08	1.08E+09	1.09E+09
RA-223	3.73E+09	4.88E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
RA-224	2.49E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1 2557.08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
RA-225	8.71E+07	1.18E+08	1.51E+08	2.78E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
RA-226	3.21E+08	5.94E+08	7.77E+08	1.24E+09	3.21E+09	1.22E+10	5.23E+10	2.41E+11	7.34E+11	1.73E+12	1.91E+12	5.53E+11
RA-228	6.44E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
AC-225	8.71E+07	1.18E+08	1.51E+08	2.77E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
AC-225 AC-227	3.74E+09	4.89E+09	5.23E+09	5.55E+09	5.69E+09	5.92E+09	6.59E+09	9.15E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
AC-228	6.44E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
TH-227	3.68E+09	4.82E+09	5.16E+09	5.47E+09	5.61E+09	5.84E+09	6.50E+09	9.03E+09	1.89E+10	5.59E+10	7.74E+10	7.77E+10
TH-228	2.48E+10	1.86E+10	1.53E+10	9.52E+09	1.50E+09	1.27E+08	1.25E+08	1.23E+08	1.19E+08	1.08E+08	9.39E+07	1.09E+08
TH-229	8.72E+07	1.18E+08	1.51E+08	2.78E+08	1.49E+09	1.67E+10	1.69E+11	1.73E+12	9.82E+12	3.81E+13	8.15E+13	9.25E+13
TH-230	2.12E+10	2.17E+10	2.20E+10	2.28E+10	2.73E+10	4.74E+10	1.07E+11	3.04E+11	7.84E+11	1.75E+12	1.90E+12	5.51E+11
TH-231	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.17E+10	2.26E+10	2.81E+10	4.69E+10	7.45E+10	7.89E+10	7.88E+10
TH-232	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.51E+07	6.52E+07	6.54E+07	6.62E+07	6.93E+07	7.81E+07	1.09E+08
TH-234	2.85E+11	2.85E+11	2.85E+11	2.85E+11	2.85E+11	2.85E+11						
PA-231	5.60E+09	5.61E+09	5.62E+09	5.63E+09	5.70E+09	5.93E+09	6.60E+09	9.17E+09	1.92E+10	5.67E+10	7.84E+10	7.88E+10
PA-232	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.07E+06	1.06E+06	1.03E+06	9.38E+05	6.86E+05	2.80E+05	1.23E+04
PA-233	5.57E+13	5.87E+13	6.07E+13	6.52E+13	8.03E+13	1.07E+14	1.19E+14	1.20E+14	1.19E+14	1.16E+14	1.09E+14	8.70E+13
PA-234	3.70E+08	3.70E+08	3.70E+08	3.70E+08	3.71E+08	3.71E+08						
PA-234M	2.85E+11	2.85E+11	2.85E+11	2.85E+11	2.85E+11	2.85E+11						
U-232	2.40E+10	1.80E+10	1.49E+10	9.21E+09	1.39E+09	6.17E+07	5.96E+07	5.77E+07	5.28E+07	3.86E+07	1.58E+07	6.90E+05
U-233	7.44E+09	1.49E+10	2.02E+10	3.39E+10	9.79E+10	3.91E+11	1.40E+12	4.97E+12	1.46E+13	4.18E+13	8.28E+13	9.23E+13
U-234	1.45E+12	1.66E+12	1.79E+12	2.08E+12	2.84E+12	3.36E+12	3.37E+12	3.31E+12	3.14E+12	2.63E+12	1.61E+12	4.67E+11
U-235	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.14E+10	2.17E+10	2.26E+10	2.81E+10	4.69E+10	7.45E+10	7.89E+10	7.88E+10
U-236	2.61E+11	2.63E+11	2.64E+11	2.68E+11	2.81E+11	3.26E+11	4.36E+11	6.81E+11	8.76E+11	9.01E+11	8.96E+11	8.78E+11
U-237	4.40E+11	1.05E+11	4.05E+10	4.48E+09	9.03E+08	8.53E+08	7.25E+08	4.09E+08	8.01E+07	2.66E+05	2.19E-02	0.
U-238	2.85E+11	2.85E+11	2.85E+11	2.85E+11	2.85E+11	2.85E+11						
U-240	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
NP-235	7.44E+03	3.50E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP-236	6.70E+08	6.70E+08	6.70E+08	6.70E+08	6.70E+08	6.67E+08	6.61E+08	6.41E+08	5.86E+08	4.29E+08	1.75E+08	7.66E+06
NP-237	5.57E+13	5.87E+13	6.07E+13	6.52E+13	8.03E+13	1.07E+14	1.19E+14	1.20E+14	1.19E+14	1.16E+14	1.09E+14	8.70E+13
NP-238	9.91E+12	8.55E+12	7.75E+12	6.06E+12	2.27E+12	7.26E+10	3.90E+06	0.	0.	0.	0.	0.
NP-239	4.62E+15	4.60E+15	4.60E+15	4.57E+15	4.49E+15	4.20E+15	3.48E+15	1.80E+15	2.76E+14	3.85E+11	1.21E+07	1.17E+07
NP-240M	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.84E+05	2.88E+05	2.99E+05	3.25E+05	3.63E+05
PU-236	2.57E+08	5.94E+07	5.92E+07	5.92E+07	5.92E+07	5.90E+07	5.85E+07	5.67E+07	5.18E+07	3.79E+07	1.55E+07	6.77E+05
PU-238	2.54E+15	2.35E+15	2.22E+15	1.90E+15	8.79E+14	3.40E+13	1.87E+09	2.12E-06	0.	0.	0.	0.
PU-239	2.65E+14	2.70E+14	2.73E+14	2.79E+14	3.04E+14	3.85E+14	5.78E+14	9.33E+14	8.51E+14	1.29E+14	4.08E+11	1.17E+07
PU-240	1.71E+15	2.11E+15	2.20E+15	2.27E+15	2.23E+15	2.07E+15	1.68E+15	7.98E+14	9.57E+13	5.72E+10	3.24E+05	3.62E+05

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
PU-241	1.79E+16	4.26E+15	1.65E+15	1.83E+14	3.69E+13	3.48E+13	2.96E+13	1.67E+13	3.27E+12	1.08E+10	8.94E+02	0.
PU-242	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.23E+12	1.24E+12	1.25E+12	1.22E+12	1.07E+12	7.40E+11	2.04E+11
PU-243	1.22E+07	1.21E+07	1.17E+07									
PU-244	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.82E+05	2.83E+05	2.83E+05	2.84E+05	2.88E+05	3.00E+05	3.26E+05	3.63E+05
PU-246	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.28E-01	3.10E-01	2.66E-01	1.55E-01	3.33E-02	1.51E-04	0.	0.
AM-241	3.18E+17	3.04E+17	2.94E+17	2.72E+17	1.97E+17	6.42E+16	2.63E+15	1.76E+13	3.45E+12	1.14E+10	9.42E+02	0.
AM-242	2.15E+15	1.85E+15	1.68E+15	1.31E+15	4.91E+14	1.57B+13	8.45E+08	0.	0.	0.	0.	0.
AM-242M	2.16E+15	1.86E+15	1.69E+15	1.32E+15	4.94E+14	1.58E+13	8.50E+08	9.65E-07	0.	0.	0.	0.
AM-243	4.62E+15	4.60E+15	4.60E+15	4.57E+15	4.49E+15	4.20E+15	3.48E+15	1.80E+15	2.76E+14	3.85E+11	1.21E+07	1.17E+07
AM-245	1.95E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM-246	3.35E-01	3.34E-01	3.34E-01	3.33E-01	3.28E-01	3.10E-01	2.66E-01	1.55E-01	3.32E-02	1.42E-04	0.	0.
CM-242	1.78E+15	1.54E+15	1.39E+15	1.09E+15	4.08E+14	1.31E+13	7.02E+08	7.97B-07	0.	0.	0.	0.
CM-243	1.81E+15	8.72E+14	5.36E+14	1.59E+14	1.23E+12	4.96E+04	0.	0.	0.	0.	0.	0.
CM-244	2.12E+17	6.73E+16	3.13E+16	4.62E+15	2.19E+12	5.07E+00	0.	0.	0.	0.	0.	0.
CM-245	3.77E+13	3.76E+13	3.76E+13	3.74E+13	3.68E+13	3.48E+13	2.95E+13	1.67E+13	3.26E+12	1.08E+10	8.92E+02	0.
CM-246	4.84E+12	4.82E+12	4.80E+12	4.77E+12	4.63E+12	4.18E+12	3.12E+12	1.12E+12	5.97E+10	2.10E+06	3.95E-07	0.
CM-247	1.22E+07	1.21E+07	1.17E+07									
CM-248	2.55E+07	2.55E+07	2.55E+07	2.55E+07	2.55E+07	2.54E+07	2.53E+07	2.50E+07	2.40E+07	2.08E+07	1.38E+07	3.30E+06
CM-250	4.19E+00	4.18E+00	4.17E+00	4.16E+00	4.09E+00	3.88E+00	3.33E+00	1.94E+00	4.16E-01	1.89E-03	3.87E-10	0.
BK-249	1.37E+01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BK-250	1.30E+00	1.30E+00	1.29E+00	1.29E+00	1.27E+00	1.20E+00	1.03E+00	6.01E-01	1.29E-01	5.87E-04	0.	0.
CF-249	2.27E+08	2.14E+08	2.06E+08	1.86E+08	1.25E+08	3.14E+07	6.01E+05	5.84E-01	0.	0.	0.	0.
CF-250	1.99E+08	4.07E+07	1.41E+07	9.97E+05	2.62E+01	1.20E+00	1.03E+00	6.02E-01	1.29E-01	5.88E-04	1.13E-10	0.
CF-251	6.25E+06	6.10E+06	6.01E+06	5.78E+06	4.96E+06	2.89E+06	6.17E+05	2.78E+03	5.49E-04	0.	0.	0.
CF-252	3.08E+05	1.16E+02	6.08E-01	1.20E-06	0.	0.	0.	0.	0.	0.	0.	0.
ES-254	3.37E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Summe	5.70E+17	3.95E+17	3.46E+17	2.94E+17	2.11E+17	7.54E+16	1.22E+16	5.66E+15	1.85E+15	7.33E+14	9.78E+14	1.02E+15

Aktivität [Bq] versus Zeit [Jahre] nach Herkunftskategorien Aktivität der Aktivierungs- und Spaltprodukte in [Bq], Herkunftskategorie Wiederaufarbeitung (W)

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
H-3	3.53E+16	6.55E+15	2.13E+15	1.29E+14	1.72E+09	1.48E-08	0.	0.	0.	0.	0.	0.
BE-10	1.30E+09	1.29E+09	1.28E+09	1.25E+09	1.14E+09	8.43E+08						
C-14	2.72E+14	2.71E+14	2.71E+14	2.69E+14	2.63E+14	2.41E+14	1.90E+14	8.13E+13	7.23E+12	1.52E+09	4.73E-02	0.
NA-22	1.15E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SI-32	1.72E+07	1.65E+07	1.60E+07	1.48E+07	1.09E+07	3.69E+06	1.70E+05	3.52E+00	0.	0.	0.	0.
P-32	1.72E+07	1.65E+07	1.60E+07	1.48E+07	1.09E+07	3.69E+06	1.70E+05	3.52E+00	0.	0.	0.	0.
CL-36	1.00E+12	1.00E+12	1.00E+12	1.00E+12	9.99E+11	9.98E+11	9.93E+11	9.77E+11	9.33E+11	7.94E+11	5.01E+11	1.00E+11
AR-39	2.65E+09	2.46E+09	2.33E+09	2.05E+09	1.23E+09	2.02E+08	1.17E+06	1.71E-02	0.	0.	0.	0.
AR-42	1.53E+00	8.16E-01	5.36E-01	1.88E-01	2.81E-03	1.16E-09	0.	0.	0.	0.	0.	0.
K-40	1.06E+06											
K-42	1.53E+00	8.16E-01	5.36E-01	1.88E-01	2.81E-03	0.	0.	0.	0.	0.	0.	0.
CA-41	6.45E+10	6.45E+10	6.45E+10	6.44E+10	6.44E+10	6.40E+10	6.32E+10	6.03E+10	5.26E+10	3.27E+10	8.40E+09	7.21E+07
CA-45	3.00E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V-50	4.84E+00											
MN-54	1.86E+08	5.19E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE-55	1.50E+15	6.77E+11	3.99E+09	1.06E+04	0.	0.	0.	0.	0.	0.	0.	0.
CO-60	2.13E+16	4.12E+14	2.97E+13	4.14E+10	1.56E-01	0.	0.	0.	0.	0.	0.	0.
NI-59	2.07E+15	2.07E+15	2.07E+15	2.07E+15	2.07E+15	2.06E+15	2.02E+15	1.89E+15	1.57E+15	8.23E+14	1.30E+14	2.01E+11
NI-63	2.04E+17	1.65E+17	1.42E+17	9.93E+16	2.34E+16	1.49E+14	8.00E+07	0.	0.	0.	0.	0.
ZN-65	7.47E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SE-79	2.45E+13	2.45E+13	2.45E+13	2.45E+13	2.44E+13	2.44E+13	2.43E+13	2.39E+13	2.28E+13	1.93E+13	1.21E+13	2.33E+12
KR-81	3.98E+05	3.98E+05	3.98E+05	3.97E+05	3.97E+05	3.96E+05	3.94E+05	3.85E+05	3.60E+05	2.86E+05	1.48E+05	1.46E+04
KR-85	7.61E+14	1.09E+14	3.00E+13	1.18E+12	2.87E+06	0.	0.	0.	0.	0.	0.	0.
RB-87	5.91E+09											
SR-90	8.95E+18	4.38E+18	2.72E+18	8.28E+17	7.09E+15	4.11E+08	0.	0.	0.	0.	0.	0.
Y-90	8.95E+18	4.38E+18	2.72E+18	8.28E+17	7.09E+15	4.11E+08	0.	0.	0.	0.	0.	0.
ZR-93	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.63E+14	5.62E+14	5.60E+14	5.55E+14	5.38E+14	4.91E+14	3.58E+14
NB-91	7.65E+01	7.42E+01	7.27E+01	6.90E+01	5.63E+01	2.76E+01	3.59E+00	2.86E-03	4.01E-12	0.	0.	0.
NB-93M	4.19E+14	5.03E+14	5.21E+14	5.33E+14	5.35E+14	5.34B+14	5.34E+14	5.32E+14	5.28E+14	5.11E+14	4.67E+14	3.40E+14
NB-94	2.99E+14	2.98E+14	2.98E+14	2.98E+14	2.96E+14	2.89E+14	2.70E+14	2.12E+14	1.07E+14	9.82E+12	1.06E+10	4.43E-01
MO-93	7.07E+12	7.03E+12	7.00E+12	6.93E+12	6.66E+12	5.80E+12	3.90E+12	9.75E+11	1.85E+10	1.76E+04	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
TC-98	1.34E+09	1.33E+09	1.32E+09	1.27E+09	1.13E+09							
TC-99	3.83E+15	3.83E+15	3.83E+15	3.83E+15	3.83E+15	3.82E+15	3.79E+15	3.71E+15	3.47E+15	2.77E+15	1.44E+15	1.48E+14
RU-106	7.55E+11	8.30E+02	8.84E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.
RH-102	2.04E+11	1.56E+08	1.31E+06	8.48E+00	0.	0.	0.	0.	0.	0.	0.	0.
RH-106	7.55E+11	8.30E+02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PD-107	3.00E+13	2.99E+13	2.97E+13	2.91E+13	2.70E+13							
AG-108	2.33E+11	1.98E+11	1.78E+11	1.35E+11	4.54E+10	9.95E+08	1.81E+04	0.	0.	0.	0.	0.
AG-108M	2.62E+12	2.23E+12	2.00E+12	1.52E+12	5.10E+11	1.12E+10	2.03E+05	0.	0.	0.	0.	0.
AG-109M	2.98E+07	2.32E+00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110	5.70E+03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AG-110M	4.29E+05	2.68E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-109	2.98E+07	2.32E+00	4.23E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD-113	1.85E+01											
CD-113M	3.03E+15	6.58E+14	2.37E+14	1.86E+13	6.95E+08	2.22E-07	0.	0.	0.	0.	0.	0.
IN-115	4.29E+03											
SN-113	1.03E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-119M	1.66E+08	9.15E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-121M	1.81E+14	1.24E+14	9.62E+13	5.12E+13	4.12B+12	6.08E+08	6.87E-03	0.	0.	0.	0.	0.
SN-123	7.72E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SN-126	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.00E+14	1.97E+14	1.88E+14	1.63E+14	1.01E+14	2.51E+13	1.97E+11
SB-125	1.72E+15	9.44E+11	6.33E+09	2.33E+04	0.	0.	0.	0.	0.	0.	0.	0.
SB-126	2.82E+13	2.81E+13	2.81E+13	2.81E+13	2.81E+13	2.79E+13	2.76E+13	2.63E+13	2.29E+13	1.41E+13	3.52E+12	2.75E+10
SB-126M	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.01E+14	2.00E+14	1.97E+14	1.88E+14	1.63E+14	1.01E+14	2.51E+13	1.97E+11
TE-123	7.29E+02											
TE-123M	2.36E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TE-125M	4.19E+14	2.30E+11	1.54E+09	5.69E+03	0.	0.	0.	0.	0.	0.	0.	0.
J-129	1.66E+11	1.65E+11	1.64E+11	1.59E+11								
CS-134	1.21E+15	5.03E+10	6.05E+07	3.04E+00	0.	0.	0.	0.	0.	0.	0.	0.
CS-135	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.15E+14	1.14E+14	1.14E+14	1.14E+14	1.11E+14	1.05E+14	8.47E+13
CS-137	1.27E+19	6.34E+18	4.00E+18	1.26E+18	1.24E+16	1.17E+09	0.	0.	0.	0.	0.	0.
BA-133	9.97E+03	1.44E+03	3.96E+02	1.57E+01	3.89E-05	0.	0.	0.	0.	0.	0.	0.
BA-137M	1.20E+19	6.00E+18	3.78E+18	1.19E+18	1.17E+16	1.11E+09	0.	0.	0.	0.	0.	0.
LA-138	3.13E+04											
CE-142	1.55E+04											
CE-144	3.42E+09	8.53E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144	3.42E+09	8.52E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PR-144M	4.11E+07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
ND-144	4.17E+05											
PM-145	3.89E+06	1.20E+06	5.49E+05	7.75E+04	3.08E+01	0.	0.	0.	0.	0.	0.	0.
PM-146	1.15E+13	2.62E+11	2.11E+10	3.86E+07	4.37E-04	0.	0.	0.	0.	0.	0.	0.
PM-147	1.00E+16	3.61E+12	1.83E+10	3.35E+04	0.	0.	0.	0.	0.	0.	0.	0.
SM-145	1.60E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SM-146	4.56E+07	4.58E+07	4.55E+07									
SM-147	1.41E+09											
SM-148	1.30E+04											
SM-149	2.61E+02											
SM-151	7.53E+16	5.98E+16	5.12E+16	3.49E+16	7.47E+15	3.40E+13	6.95E+06	0.	0.	0.	0.	0.
EU-150	2.06E+09	1.12E+09	7.46E+08	2.71E+08	4.70E+06	3.24E+00	0.	0.	0.	0.	0.	0.
EU-152	3.49E+14	7.34E+13	2.59E+13	1.93E+12	5.86E+07	9.09E-09	0.	0.	0.	0.	0.	0.
EU-154	1.81E+17	1.71E+16	3.53E+15	6.88E+13	9.91E+06	0.	0.	0.	0.	0.	0.	0.
EU-155	1.72E+16	2.59E+14	1.58E+13	1.46E+10	1.06E-02	0.	0.	0.	0.	0.	0.	0.
GD-152	7.46E+02	7.56E+02	7.57E+02	7.58E+02								
GD-153	1.16E+05	2.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HO-166M	9.51E+11	9.34E+11	9.24E+11	8.97E+11	7.99E+11	5.34E+11	1.68E+11	2.95E+09	2.84E+04	0.	0.	0.
TM-171	2.32E+06	4.59E+01	3.36E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-176	9.37E+03											
LU-177	3.35E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LU-177M	1.46E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
HF-182	1.89E+08	1.88E+08	1.85E+08	1.75E+08								
TA-180	3.65E+01											
TA-182	1.89E+08	1.88E+08	1.85E+08	1.75E+08								
W-181	5.56E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RE-187	2.38E+07											
OS-194	9.74E+03	3.04E+02	3.02E+01	9.37E-02	0.	0.	0.	0.	0.	0.	0.	0.
IR-192	1.35E+07	1.24E+07	1.17E+07	1.01E+07	5.69E+06	7.61E+05	2.42E+03	4.36E-06	0.	0.	0.	0.
IR-192M	1.35E+07	1.24E+07	1.17E+07	1.01E+07	5.69E+06	7.60E+05	2.41E+03	4.35E-06	0.	0.	0.	0.
IR-194	9.75E+03	3.05E+02	3.02E+01	9.37E-02	0.	0.	0.	0.	0.	0.	0.	0.
IR-194M	1.83E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PT-193	1.31E+08	1.25E+08	1.22E+08	1.14E+08	8.62E+07	3.27E+07	2.04E+06	1.25E+02	1.12E-10	0.	0.	0.
TL-204	1.20E+12	5.03E+09	1.31E+08	1.43E+04	0.	0.	0.	0.	0.	0.	0.	0.
TL-206	4.09E+06	4.09B+06	4.09E+06	4.09E+06	4.09E+06	4.08E+06	4.08E+06	4.08E+06	4.06E+06	3.99E+06	3.81E+06	3.24E+06
PB-204	1.36E-01											
PB-205	3.54E+06	3.53E+06	3.52E+06	3.49E+06	3.37E+06							
BI-208	6.12E+06	6.12E+06	6.12E+06	6.11E+06	6.11E+06	6.11E+06	6.08E+06	6.00E+06	5.78E+06	5.07E+06	3.48E+06	9.30E+05

Nuklid	1.1.2030	30 a	50 a	100 a	300 a	1'000 a	3'000 a	10'000 a	30'000 a	100'000a	300'000a	1 Mio a
BI-210M PO-210							4.10E+06 1.64E+04					
Summe	4.32E+19	2.14E+19	1.34E+19	4.25E+18	7.74E+16	8.29E+15	7.96E+15	7.56E+15	6.76E+15	5.03E+15	2.73E+15	9.61E+14