

熱中性子により U235が 1mg核分裂した後の FP量

JAERI NDCの FP Decay Libraryをinputとして、Excel VBで計算。主要37核種をピックアップ。

核種	半減期	放射能量 Bq/mg-fission (U235)							
		1sec	1min	1hr	1day	1week	1month	1yr	10yr
Sr-89	50.501 d	1.40E+08	2.71E+08	2.31E+10	2.49E+10	2.29E+10	1.66E+10	1.68E+08	4.26E-12
Sr-90	28.5 y	7.56E+05	1.45E+07	1.31E+08	1.31E+08	1.31E+08	1.31E+08	1.28E+08	1.03E+08
Y-90	2.671 d	1.37E+06	1.37E+06	2.65E+06	3.09E+07	1.10E+08	1.31E+08	1.28E+08	1.03E+08
Sr-91	9.480 h	1.50E+11	1.62E+12	3.16E+12	5.88E+11	1.57E+07	2.16E-11	0.00E+00	0.00E+00
Y-91	58.512 d	6.54E+05	3.79E+06	9.66E+08	1.86E+10	2.12E+10	1.61E+10	3.05E+08	3.72E-09
Y-93	10.100 h	4.47E+10	3.16E+11	3.21E+12	6.65E+11	3.39E+07	5.81E-10	0.00E+00	0.00E+00
Zr-95	64.052 d	2.46E+08	1.10E+09	2.24E+10	2.26E+10	2.12E+10	1.64E+10	4.39E+08	1.56E-07
Nb-95	34.970 d	6.07E+05	6.15E+05	1.46E+07	4.38E+08	2.83E+09	8.66E+09	9.31E+08	3.43E-07
Sr-96	1.015 s	3.97E+16	1.43E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-97	16.900 h	6.35E+11	1.76E+12	1.69E+12	6.59E+11	1.79E+09	1.71E-01	0.00E+00	0.00E+00
Nb-97	1.202 h	4.26E+10	5.34E+10	1.09E+12	1.02E+12	2.77E+09	2.65E-01	0.00E+00	0.00E+00
Nb-97m	59.997 s	7.06E+11	1.52E+12	2.36E+12	9.21E+11	2.51E+09	2.39E-01	0.00E+00	0.00E+00
Nb-98	2.860 s	4.46E+14	1.22E+15	2.37E-20	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-99	2.100 s	2.61E+16	5.24E+11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mo-99	2.751 d	8.20E+09	3.15E+11	4.56E+11	3.58E+11	7.89E+10	2.15E+08	4.92E-29	0.00E+00
Tc-99m	6.020 h	4.12E+05	3.38E+08	4.22E+10	3.15E+11	7.55E+10	2.06E+08	4.71E-29	0.00E+00
Tc-101	14.200 m	1.36E+10	3.94E+12	1.74E+13	7.22E-15	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	8.040 d	1.07E+08	1.87E+08	3.24E+10	6.18E+10	4.19E+10	5.60E+09	1.63E-03	0.00E+00
Te-132	3.204 d	9.63E+10	1.26E+11	2.77E+11	2.25E+11	6.15E+10	3.86E+08	1.35E-23	0.00E+00
I-132	2.280 h	2.09E+10	2.14E+10	8.93E+10	2.32E+11	6.34E+10	3.98E+08	1.39E-23	0.00E+00
I-133	20.800 h	2.83E+10	6.92E+10	1.14E+12	7.38E+11	6.08E+09	4.39E+01	0.00E+00	0.00E+00
Xe-133	5.290 d	3.17E+07	3.66E+07	5.00E+09	1.75E+11	1.72E+11	8.18E+09	7.25E-10	0.00E+00
Te-134	41.801 m	4.47E+13	5.24E+13	2.00E+13	2.31E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-134	52.600 m	2.71E+12	3.65E+12	2.00E+13	1.24E+06	4.47E-44	0.00E+00	0.00E+00	0.00E+00
Cs-137	30.17 y	3.11E+06	1.73E+07	1.24E+08	1.24E+08	1.24E+08	1.24E+08	1.21E+08	9.87E+07
Cs-138	32.200 m	1.26E+12	4.20E+12	2.57E+13	3.97E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-139	1.379 h	2.55E+11	1.01E+12	1.62E+13	1.58E+08	5.66E-24	0.00E+00	0.00E+00	0.00E+00
Ba-140	12.746 d	9.20E+09	4.62E+10	1.06E+11	1.01E+11	7.27E+10	2.03E+10	2.51E+02	0.00E+00
La-140	1.678 d	6.70E+08	6.78E+08	2.42E+09	3.54E+10	7.69E+10	2.34E+10	2.89E+02	0.00E+00
Ce-141	32.380 d	2.74E+05	1.69E+06	3.69E+09	3.61E+10	3.22E+10	1.95E+10	1.51E+07	4.13E-24
Ce-143	1.375 d	4.79E+09	3.47E+10	8.50E+11	5.55E+11	2.69E+10	1.99E+05	0.00E+00	0.00E+00
Pr-143	13.580 d	7.27E+04	6.72E+05	1.30E+09	3.52E+10	6.89E+10	2.17E+10	8.22E+02	0.00E+00
La-144	40.599 s	5.18E+14	1.11E+15	6.73E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-144	284.205 d	6.05E+07	2.22E+09	4.15E+09	4.14E+09	4.08E+09	3.85E+09	1.70E+09	5.61E+05
Pr-144	17.280 m	1.83E+08	3.61E+08	4.01E+09	4.14E+09	4.08E+09	3.85E+09	1.70E+09	5.61E+05
Pr-146	24.070 m	1.43E+11	2.31E+12	1.61E+13	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pm-147	2.623 y	2.04E+01	1.39E+02	8.50E+05	2.90E+07	1.71E+08	4.06E+08	3.76E+08	3.49E+07
Total		5.20E+17	2.16E+16	3.18E+14	9.87E+12	9.49E+11	1.93E+11	6.48E+09	4.47E+08