

0.1 α -Energies in Energy-Order of Actinides

Isotopes included: Am-239,-241,-243; Cf-248,-252; Cm-240,-241,-242,-243,-244; Np-237; Pu-236,-238,-239,-240,-241,-242,-244; U-232,-233,-236;

absolute intensity $\Sigma \approx 100\%$

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isotope	energy keV	intensity %	half-life
U-236	4332	0.26	$2.342 \cdot 10^7$ y
U-236	4445	25.9	$2.342 \cdot 10^7$ y
U-233	4456.7	0.0028	$1.592 \cdot 10^5$ y
U-233	4464.8	0.003	$1.592 \cdot 10^5$ y
U-236	4493.5	73.8	$2.342 \cdot 10^7$ y
U-233	4509.3	0.012	$1.592 \cdot 10^5$ y
U-233	4512.6	0.018	$1.592 \cdot 10^5$ y
Np-237	4513.7	$4.1 \cdot 10^{-4}$	$2.144 \cdot 10^6$ y
U-233	4541.3	0.004	$1.592 \cdot 10^5$ y
Pu-244	4546	19.4	$8.00 \cdot 10^7$ y
Np-237	4581.0	0.40	$2.144 \cdot 10^6$ y
Pu-244	4589	80.6	$8.00 \cdot 10^7$ y
U-233	4591.0	0.007	$1.592 \cdot 10^5$ y
Np-237	4598.6	0.34	$2.144 \cdot 10^6$ y
Pu-242	4600.2	$8.6 \cdot 10^{-4}$	$3.733 \cdot 10^5$ y
U-233	4610.9	0.006	$1.592 \cdot 10^5$ y
U-233	4615.6	0.004	$1.592 \cdot 10^5$ y
U-233	4625.8	0.004	$1.592 \cdot 10^5$ y
Np-237	4639.4	6.18	$2.144 \cdot 10^6$ y
U-233	4640.5	0.003	$1.592 \cdot 10^5$ y
U-233	4653.7	0.005	$1.592 \cdot 10^5$ y
U-233	4663.8	0.042	$1.592 \cdot 10^5$ y
Np-237	4664.0	3.32	$2.144 \cdot 10^6$ y
U-233	4680.4	0.010	$1.592 \cdot 10^5$ y
Am-243	4695	0.0017	7370 y
Np-237	4694.4	0.48	$2.144 \cdot 10^6$ y
U-233	4701.0	0.060	$1.592 \cdot 10^5$ y
Pu-238	4704	$5 \cdot 10^{-5}$	87.7 y
U-233	4728.8	1.61	$1.592 \cdot 10^5$ y
U-233	4750.6	0.01	$1.592 \cdot 10^5$ y
U-233	4753.7	0.163	$1.592 \cdot 10^5$ y
Pu-242	4756.3	0.0290	$3.733 \cdot 10^5$ y
U-233	4757.4	0.016	$1.592 \cdot 10^5$ y
Np-237	4766.0	8	$2.144 \cdot 10^6$ y
Np-237	4771.0	2	$2.144 \cdot 10^6$ y
U-233	4783.5	13.2	$1.592 \cdot 10^5$ y
Pu-241	4784	0.2	14.35 y
Np-237	4788.0	47	$2.144 \cdot 10^6$ y
U-233	4795.6	0.28	$1.592 \cdot 10^5$ y
Pu-241	4798	1.2	14.35 y
Np-237	4803.3	1.56	$2.144 \cdot 10^6$ y

isotope	energy keV	intensity %	half-life
U-233	4803.6	0.051	$1.592 \cdot 10^5$ y
Np-237	4817.3	2.54	$2.144 \cdot 10^6$ y
U-233	4824.2	84.4	$1.592 \cdot 10^5$ y
Am-241	4834.15	0.0007	432.2 y
Pu-241	4853.4	12.2	14.35 y
Pu-242	4858.1	23.52	$3.733 \cdot 10^5$ y
Pu-240	4863.51	0.00108	6563 y
Np-237	4862.8	0.24	$2.144 \cdot 10^6$ y
Np-237	4873.0	0.44	$2.144 \cdot 10^6$ y
Pu-241	4896.4	83.2	14.35 y
Pu-242	4902.3	76.45	$3.733 \cdot 10^5$ y
Cm-244	4960	0.000155	18.10 y
Pu-241	4972	1.3	14.35 y
U-232	4997.94	0.00616	68.9 y
Pu-241	4998	0.41	14.35 y
Am-241	5007.58	0.0001	432.2 y
Am-243	5008	0.0016	7370 y
Pu-240	5021.15	0.0852	6563 y
Am-243	5035	0.0022	7370 y
Pu-241	5042	1.02	14.35 y
Pu-241*	5054	0.35	14.35 y
Am-241	5066.22	0.00014	432.2 y
Pu-236	5087.81	$5.8 \cdot 10^{-4}$	2.858 y
Am-243	5088	0.004	7370 y
Am-241	5092.05	0.0004	432.2 y
Am-241	5099.09	0.0004	432.2 y
Pu-239	5105.5	11.5	$2.411 \cdot 10^4$ y
Am-243	5113	0.0054	7370 y
Am-241	5117.20	0.0004	432.2 y
Pu-240	5123.45	26.39	6563 y
U-232	5139.0	0.30	68.9 y
Pu-239	5144.3	15.1	$2.411 \cdot 10^4$ y
Am-241	5155.16	0.0007	432.2 y
Pu-239	5156.59	73.3	$2.411 \cdot 10^4$ y
Pu-240	5168.13	73.51	6563 y
Am-241	5179.34	0.0003	432.2 y
Am-243	5181	1.36	7370 y
Am-241	5181.64	0.0009	432.2 y
Am-241	5190.4	0.0006	432.2 y
Pu-238	5205.6	0.0030	87.7 y
Pu-236	5213.89	$2.6 \cdot 10^{-4}$	2.858 y
Am-241	5225.08	0.0013	432.2 y

α -Energies of Actinides
absolute intensity $\Sigma \approx 100\%$

isotope	energy keV	intensity %	half-life
Am-243	5233.3	11.0	7370 y
Am-241	5244.12	0.0024	432.2 y
U-232	5263.36	31.6	68.9 y
Am-243	5275.3	86.4	7370 y
Am-241	5281.01	0.0005	432.2 y
U-232	5320.12	68.1	68.9 y
Am-243	5321	0.12	7370 y
Am-241	5321.90 ₁₃	0.015 ₅	432.2 y
Am-243	5349.4	0.16	7370 y
Pu-238	5357.7	0.105	87.7 y
Am-241	5388.23 ₁₃	1.60 ₂₀	432.2 y
Am-241	5416.27 ₁₄	0.010 ₅	432.2 y
Am-241	5442.80₁₃	13.0₆	432.2 y
Pu-236	5450.34	0.00185	2.858 y
Pu-238	5456.3	28.98	87.7 y
Am-241	5469.45 ₁₄	0.02 ₂	432.2 y
Am-241	5485.56₁₂	84.5₁₀	432.2 y
Pu-238	5499.03	70.91	87.7 y
Am-241	5511.47₁₃	0.22₃	432.2 y
Cm-242	5513	0.00024	162.8 d
Cm-244	5513	0.0035	18.10 y
Am-241	5544.5 ₁₆	0.34 ₅	432.2 y
Cm-243	5587	0.02	29.1 y
Cm-243	5593	0.01	29.1 y
Cm-243	5609	< 0.01	29.1 y
Cm-243	5612	0.03	29.1 y
Pu-236	5613.61	0.225	2.858 y
Cm-243	5622	0.06	29.1 y
Cm-243	5639	0.14	29.1 y
Cm-243	5646	0.03	29.1 y
Cm-244	5664	0.022	18.10 y
Am-239	5680	1.98	11.9 h
Cm-243	5682	0.2	29.1 y
Cm-243	5686	1.6	29.1 y
Cm-241	5687	0.22	32.8 d
Cm-241	5719	0.08	32.8 d
Pu-236	5720.87	30.76	2.858 y
Am-239	5734	13.75	11.9 h
Cm-243	5742.1	11.5	29.1 y
Am-239	5744.2	83.7	11.9 h
Cm-244	5762.64	23.6	18.10 y
Pu-236	5767.53	69.14	2.858 y
Cm-241	5785	0.07	32.8 d
Cm-243	5785.2	72.9	29.1 y

absolute intensity $\Sigma \approx 100\%$

isotope	energy keV	intensity %	half-life
Cm-244	5804.77	76.4	18.10 y
Cm-242	5814	0.0031	162.8 d
Am-239 *	5825	0.33	11.9 h
Cf-252	5826.3	0.002	2.645 y
Cm-241	5863	0.14	32.8 d
Cm-243	5876	0.6	29.1 y
Cm-241	5884.2	11.8	32.8 d
Cm-243	5907	0.1	29.1 y
Cm-241	5914	0.12	32.8 d
Cm-241	5927.2	18.1	32.8 d
Cm-241	5938.5	68.9	32.8 d
Cm-242	5971	0.035	162.8 d
Cf-252	5976.6	0.24	2.645 y
Cm-241	5978	0.28	32.8 d
Cm-240	5989	0.014	27 d
Cm-243	5991.8	5.7	29.1 y
Cm-243	6010	1.0	29.1 y
Cm-241	6036	0.12	32.8 d
Cm-243	6058	4.7	29.1 y
Cm-243 *	6066.2	1.5	29.1 y
Cm-242	6069.43	25.9	162.8 d
Cf-252	6075.77	15.7	2.645 y
Cm-241 *	6080.9	0.15	32.8 d
Cm-242	6112.72	74.1	162.8 d
Cf-252	6118.24	84.2	2.645 y
Cm-240	6147	0.052	27 d
Cf-248	6217	18.1	333.5 d
Cm-240	6247.7	28.9	27 d
Cf-248	6258	81.5	333.5 d
Cm-240	6290.5	71.1	27 d