

4.3.3  $\alpha$ -Energies of Actinides Series $\alpha$ -Energies of Cm-Isotopesabsolute intensity  $\Sigma \approx 100\%$ ; (Cm-246 completely)

isotope	energy keV	intensity %	half-life
Cm-241*	6080.9 <sub>17</sub>	0.15 <sub>5</sub>	32.8 d
Cm-241	6036 <sub>3</sub>	0.12 <sub>4</sub>	32.8 d
Cm-241	5978 <sub>3</sub>	0.28 <sub>7</sub>	32.8 d
<b>Cm-241</b>	<b>5939.0<sub>6</sub></b>	<b>68.9<sub>10</sub></b>	32.8 d
Cm-241	5927.2 <sub>15</sub>	18.1 <sub>5</sub>	32.8 d
Cm-241	5914 <sub>4</sub>	0.12 <sub>5</sub>	32.8 d
Cm-241	5884.2 <sub>7</sub>	11.8 <sub>4</sub>	32.8 d
Cm-241	5863 <sub>3</sub>	0.14 <sub>5</sub>	32.8 d
Cm-241	5785 <sub>3</sub>	0.07	32.8 d
Cm-241	5719 <sub>3</sub>	0.08	32.8 d
Cm-241	5687 <sub>3</sub>	0.22	32.8 d
<b>Cm-242</b>	<b>6112.72<sub>8</sub></b>	<b>74.08<sub>7</sub></b>	162.94 d
Cm-242	6069.43 <sub>12</sub>	25.92 <sub>6</sub>	162.94 d
Cm-242	5969.24 <sub>9</sub>	0.0350 <sub>20</sub>	162.94 d
Cm-242	5816.39 <sub>11</sub>	0.0046 <sub>5</sub>	162.94 d
Cm-242	5517.75 <sub>11</sub>	0.00025 <sub>5</sub>	162.94 d
Cm-243*	6066.2 <sub>17</sub>	1.5 <sub>2</sub>	29.1 y
Cm-243	6058 <sub>1</sub>	4.7 <sub>3</sub>	29.1 y
Cm-243	6010 <sub>3</sub>	1.0	29.1 y
Cm-243	5991.8 <sub>15</sub>	5.7 <sub>2</sub>	29.1 y
Cm-243	5907 <sub>3</sub>	0.1	29.1 y
Cm-243	5876 <sub>8</sub>	0.6	29.1 y
<b>Cm-243</b>	<b>5785.2<sub>9</sub></b>	<b>72.9<sub>10</sub></b>	29.1 y
Cm-243	5742.1 <sub>3</sub>	11.5 <sub>5</sub>	29.1 y
Cm-243	5686 <sub>3</sub>	1.6	29.1 y
Cm-243	5682 <sub>3</sub>	0.2	29.1 y
Cm-243	5639 <sub>3</sub>	0.14	29.1 y
<b>Cm-244</b>	<b>5804.77<sub>5</sub></b>	<b>76.90<sub>10</sub></b>	18.11 y
Cm-244	5762.64 <sub>3</sub>	23.10 <sub>10</sub>	18.11 y
Cm-244	5664 <sub>3</sub>	0.0204 <sub>15</sub>	18.11 y
Cm-244	5513 <sub>3</sub>	0.00352 <sub>18</sub>	18.11 y
Cm-244	4960 <sub>3</sub>	0.000149 <sub>16</sub>	18.11 y
<b>Cm-245</b>	<b>5361.1<sub>10</sub></b>	<b>93.2<sub>5</sub></b>	8500 y
Cm-245	5304.3 <sub>10</sub>	5.00 <sub>10</sub>	8500 y
Cm-245	5488.5 <sub>5</sub>	0.83 <sub>?</sub>	8500 y
<b>Cm-246</b>	<b>5386.5<sub>10</sub></b>	<b>82.2<sub>12</sub></b>	4760 y
Cm-246	5343.5 <sub>10</sub>	17.8 <sub>12</sub>	4760 y
<b>Cm-247</b>	<b>4870<sub>4</sub></b>	<b>71.0<sub>10</sub></b>	1.56*10 <sup>7</sup> y
Cm-247	5267 <sub>4</sub>	13.8 <sub>7</sub>	1.56*10 <sup>7</sup> y
Cm-247	5212 <sub>4</sub>	5.7 <sub>5</sub>	1.56*10 <sup>7</sup> y
Cm-247	4820 <sub>4</sub>	4.7 <sub>3</sub>	1.56*10 <sup>7</sup> y
Cm-247	4985 <sub>4</sub>	2.00 <sub>20</sub>	1.56*10 <sup>7</sup> y
Cm-247	4943 <sub>4</sub>	1.60 <sub>20</sub>	1.56*10 <sup>7</sup> y
Cm-247	5147 <sub>4</sub>	1.20 <sub>20</sub>	1.56*10 <sup>7</sup> y
<b>Cm-248</b>	<b>5087.41<sub>25</sub></b>	<b>75.0<sub>4</sub></b>	3.48*10 <sup>5</sup> y
Cm-248	5034.89 <sub>25</sub>	16.52 <sub>18</sub>	3.48*10 <sup>5</sup> y
Cm-248	4931.1 <sub>5</sub>	0.070 <sub>11</sub>	3.48*10 <sup>5</sup> y
Cm data from NDS [1]			

 $\alpha$ -Energies of Am-Isotopesabsolute intensity  $\Sigma \approx 100\%$ ; (Am-242 completely))

isotope	energy keV	intensity %	half-life
Am-239*	5825 <sub>4</sub>	0.33 <sub>2</sub>	11.9 h
<b>Am-239</b>	<b>5744.2<sub>15</sub></b>	<b>83.7<sub>4</sub></b>	11.9 h
Am-239	5734 <sub>2</sub>	13.75 <sub>7</sub>	11.9 h
Am-239	5680 <sub>2</sub>	1.98 <sub>3</sub>	11.9 h
Am-241	5544.5 <sub>16</sub>	0.37 <sub>3</sub>	432.6 y
Am-241	5511.47 <sub>13</sub>	0.22 <sub>3</sub>	432.6 y
<b>Am-241</b>	<b>5485.56<sub>12</sub></b>	<b>84.8<sub>5</sub></b>	432.6 y
Am-241	5469.45 <sub>14</sub>	0.02 <sub>2</sub>	432.6 y
Am-241	5442.80 <sub>13</sub>	13.0 <sub>6</sub>	432.6 y
Am-241	5416.27 <sub>14</sub>	0.010 <sub>5</sub>	432.6 y
Am-241	5388.23 <sub>13</sub>	1.660 <sub>20</sub>	432.6 y
Am-241	5321.90 <sub>13</sub>	0.015 <sub>5</sub>	432.6 y
Am-241	5281.01 <sub>?</sub>	0.0005 <sub>?</sub>	432.6 y
Am-241	5244.12 <sub>?</sub>	0.0024 <sub>?</sub>	432.6 y
Am-241	5225.08 <sub>?</sub>	0.0013 <sub>?</sub>	432.6 y
Am-241	5190.4 <sub>?</sub>	0.0006 <sub>?</sub>	432.6 y
Am-241	5181.64 <sub>?</sub>	0.0009 <sub>?</sub>	432.6 y
Am-241	5179.34 <sub>?</sub>	0.0003 <sub>?</sub>	432.6 y
Am-241	5155.16 <sub>?</sub>	0.0007 <sub>?</sub>	432.6 y
Am-241	5117.20 <sub>?</sub>	0.0004 <sub>?</sub>	432.6 y
Am-241	5099.09 <sub>?</sub>	0.0004 <sub>?</sub>	432.6 y
Am-241	5092.05 <sub>?</sub>	0.0004 <sub>?</sub>	432.6 y
Am-241	5066.22 <sub>?</sub>	0.00014 <sub>?</sub>	432.6 y
Am-241	5007.58 <sub>?</sub>	0.0001 <sub>?</sub>	432.6 y
Am-241	4834.15 <sub>?</sub>	0.0007 <sub>?</sub>	432.6 y
<b>Am-242</b>	<b>5207.06<sub>23</sub></b>	<b>0.409<sub>11</sub></b>	141 y
Am-242	5143.0 <sub>13</sub>	0.0257 <sub>11</sub>	141 y
Am-243	5349.4 <sub>23</sub>	0.16 <sub>2</sub>	7370 y
Am-243	5321 <sub>1</sub>	0.12 <sub>2</sub>	7370 y
<b>Am-243</b>	<b>5275.3<sub>10</sub></b>	<b>87.4<sub>4</sub></b>	7370 y
Am-243	5233.3 <sub>10</sub>	11.0 <sub>4</sub>	7370 y
Am-243	5181 <sub>1</sub>	1.36 <sub>1</sub>	7370 y
Am-243	5113	0.0054	7370 y
Am-243	5088	0.004	7370 y
Am-243	5035	0.0022	7370 y
Am-243	5008	0.0016	7370 y
Am-243	4695	0.0017	7370 y
Am Data from [1]			
↑ *for Intensity per 100 decays of parent			
<b>daughter</b> Np-235	<b>branch</b> 1.01*10 <sup>-4</sup>	<b>parent</b> <sup>239</sup> Am $\alpha$ -branch	<b>remark</b> multiply by branch
← *for Intensity per 100 decays of parent			
<b>daughter</b> Am-242 Pu-239 Pu-237	<b>branch</b> 0.999737 <sub>4</sub> 0.9976 0.010	<b>parent</b> <sup>246</sup> Cm $\alpha$ -branch <sup>243</sup> Cm $\alpha$ -branch <sup>241</sup> Cm $\alpha$ -branch	<b>remark</b> multiply by branch