

**<sup>236</sup>U<sub>144</sub>**

S<sub>n</sub>: 6544.8<sub>6</sub>, S<sub>p</sub>: 7172<sub>50</sub>

**Nuclear Bands**

- A GS band
- B Kπ=0<sup>-</sup> band
- C Kπ=3<sup>-</sup>, v7/2[743]-v1/2[631]
- D Kπ=6<sup>-</sup>, v7/2[743]+v5/2[622]
- E Kπ=0<sup>+</sup> band
- F Kπ=2<sup>+</sup> band
- G Kπ=1<sup>-</sup>, v7/2[743]-v5/2[622]
- H Kπ=4<sup>-</sup>, v7/2[743]+v1/2[631]
- I Kπ=2<sup>-</sup> band
- J Fission isomer band (1994ReAA, 1990Ma59, 1989Ma57, 1980Me15, 1978Gu02)  
Q<sub>0</sub>=32<sub>5</sub>
- K Fission isomer (β) band (?) (1982Go02)

**Levels and γ-ray branchings:**

- A 0, 0<sup>+</sup>, 2.342x10<sup>7</sup><sub>3</sub> y, %α=100, %SF=9.6x10<sup>-8</sup><sub>6</sub>,
- A 45.242<sub>3</sub>, 2<sup>+</sup>, 234<sub>6</sub> ps, γ<sub>0</sub>45.242<sub>3</sub>(100) E2
- A 149.476<sub>15</sub>, 4<sup>+</sup>, 124<sub>7</sub> ps, γ<sub>45.242</sub>104.234<sub>6</sub>(100) E2
- A 309.784<sub>8</sub>, 6<sup>+</sup>, 58<sub>3</sub> ps, γ<sub>149.476</sub>160.308<sub>3</sub>(100) E2
- A 522.24<sub>5</sub>, 8<sup>+</sup>, 24<sub>2</sub> ps, γ<sub>309.784</sub>212.46<sub>5</sub>(100) E2
- B 687.60<sub>5</sub>, 1<sup>-</sup>, 3.78<sub>9</sub> ns, γ<sub>149.476</sub>538.11<sub>10</sub>(1.20<sub>10</sub>) E3,  
γ<sub>45.242</sub>642.35<sub>9</sub>(100) E1(+M2+E3), γ<sub>0</sub>687.59<sub>9</sub>(27.3<sub>5</sub>) E1
- B 744.15<sub>8</sub>, 3<sup>-</sup>, γ<sub>687.60</sub>56.6<sub>5</sub>(≈ 5) (E2), γ<sub>149.476</sub>594.5<sub>3</sub>(100)
- A 782.3<sub>5</sub>, 10<sup>+</sup>, 11.6<sub>11</sub> ps, γ<sub>522.24</sub>260.1<sub>5</sub>(100) E2
- B 848.3<sub>8</sub>, 5<sup>-</sup>, γ<sub>744.15</sub>(104.1)<sub>10</sub>(100) (E2)
- E 919.21<sub>17</sub>, 0<sup>+</sup>, γ<sub>45.242</sub>874.1<sub>2</sub>(100), γ<sub>0</sub>918.9<sub>3</sub> (E0)
- F 957.99<sub>17</sub>, (2<sup>+</sup>), γ<sub>45.242</sub>≈912.7(≈ 71) (M1), γ<sub>0</sub>958.0<sub>2</sub>(100)
- E 960.3<sub>3</sub>, (2<sup>+</sup>), γ<sub>149.476</sub>≈810.9(≈ 68), γ<sub>45.242</sub>915.1<sub>3</sub>(100) (M1+E0),  
γ<sub>0</sub>≈959.9(≈ 80)
- G 966.63<sub>9</sub>, 1<sup>-</sup>, γ<sub>687.60</sub>279.0<sub>1</sub>(60<sub>4</sub>) (M1,E2), γ<sub>45.242</sub>921.2<sub>2</sub>(44<sub>11</sub>) E1,  
γ<sub>0</sub>966.9<sub>2</sub>(100) E1
- G 987.67<sub>8</sub>, 2<sup>-</sup>, γ<sub>744.15</sub>243.6<sub>2</sub>(28<sub>3</sub>) E2+M1 δ = 1.6<sub>6</sub><sup>15</sup>,  
γ<sub>687.60</sub>300.0<sub>1</sub>(20<sub>3</sub>) (E2), γ<sub>45.242</sub>942.4<sub>2</sub>(100) E1
- B 999.8<sub>9</sub>, 7<sup>-</sup>, γ<sub>848.3</sub>151.5<sub>5</sub>(100) E2
- F 1001.5<sub>3</sub>, (3<sup>+</sup>), γ<sub>744.15</sub>≈258.4, γ<sub>149.476</sub>≈852.2(≈ 13),  
γ<sub>45.242</sub>956.2<sub>3</sub>(100)
- G 1035.6<sub>7</sub>, (3<sup>-</sup>), γ<sub>149.476</sub>886.2<sub>10</sub>(100), γ<sub>45.242</sub>990.2<sub>10</sub>(≈ 88)
- E 1050.85<sub>15</sub>, (4<sup>+</sup>), γ<sub>149.476</sub>901.25<sub>17</sub>, γ<sub>45.242</sub>1006.0<sub>3</sub>(100)
- H 1052.89<sub>19</sub>, (4<sup>-</sup>), 100<sub>4</sub> ns, γ<sub>987.67</sub>65<sub>1</sub>(1.5<sub>2</sub>) (E2), γ<sub>848.3</sub>204.6<sub>10</sub>(41<sub>6</sub>)  
(E2), γ<sub>744.15</sub>308.0<sub>6</sub>(37<sub>6</sub>) E2+M1 δ = 1.4<sub>7</sub>, γ<sub>149.476</sub>903.5<sub>2</sub>(17<sub>3</sub>)  
E1
- F 1058.61<sub>20</sub>, (4<sup>+</sup>), γ<sub>149.476</sub>909.1<sub>2</sub>(100) (M1), γ<sub>45.242</sub>1014.1<sub>1</sub>(100)  
1066.1<sub>10</sub>, (3<sup>+</sup>, 4<sup>+</sup>)
- G 1070.0<sub>10</sub>, (4<sup>-</sup>), γ<sub>149.476</sub>920.5<sub>1</sub>(100)
- A 1085.3<sub>7</sub>, 12<sup>+</sup>, 5.3<sub>8</sub> ps, γ<sub>782.3</sub>303.0<sub>5</sub>(100) E2  
1093.8<sub>10</sub>, (2<sup>+</sup>, 5<sup>+</sup>)
- H 1104.4<sub>14</sub>, (5<sup>-</sup>)
- I 1110.67<sub>8</sub>, (2<sup>-</sup>), γ<sub>744.15</sub>366.6<sub>1</sub>(82<sub>10</sub>), γ<sub>687.60</sub>423.1<sub>1</sub>(100<sub>6</sub>),  
γ<sub>45.242</sub>1065.0<sub>2</sub>(34<sub>4</sub>)
- F 1126.9<sub>6</sub>, (5<sup>+</sup>), γ<sub>149.476</sub>977.4<sub>6</sub>(100)  
1147.0<sub>10</sub>, (3<sup>+</sup>, 4<sup>+</sup>)
- I 1149.4<sub>10</sub>, (3<sup>-</sup>), γ<sub>744.15</sub>405.2<sub>1</sub>(100)
- G 1164<sub>3</sub>, (5<sup>-</sup>)
- H 1164<sub>3</sub>, (6<sup>-</sup>)  
1171.8<sub>2</sub>  
1190<sub>2</sub>(?)
- B 1198.6<sub>10</sub>, 9<sup>-</sup>, γ<sub>999.8</sub>198.8<sub>3</sub>(100) E2  
1206<sub>2</sub>  
1221.4<sub>10</sub>, (2<sup>+</sup>, 5<sup>+</sup>)
- H ≈1232<sub>1</sub>, (7<sup>-</sup>)
- C 1232.2<sub>10</sub>, (4<sup>-</sup>)  
1249.3<sub>10</sub>, 2<sup>+</sup>, 5<sup>+</sup>  
1265.2<sub>10</sub>, 3<sup>+</sup>, 4<sup>+</sup>  
1271.09<sub>8</sub>, (1<sup>-</sup>, 2, 3), γ<sub>744.15</sub>526.7<sub>2</sub>(39<sub>4</sub>), γ<sub>45.242</sub>1225.9<sub>1</sub>(100<sub>8</sub>)
- C 1282.2<sub>10</sub>, (5<sup>-</sup>)
- H 1320<sub>4</sub>, (8<sup>-</sup>)  
1320.4<sub>10</sub>, 2<sup>+</sup>, 5<sup>+</sup>  
1329.0<sub>10</sub>, 3<sup>+</sup>, 4<sup>+</sup>

- 1332.8<sub>10</sub>, 3<sup>+</sup>, 4<sup>+</sup>
- C 1342.8<sub>10</sub>, (6<sup>-</sup>)
- 1347.5<sub>10</sub>, (3<sup>+</sup>, 4<sup>+</sup>)
- 1351.3<sub>10</sub>, 3<sup>+</sup>, 4<sup>+</sup>
- 1381.3<sub>10</sub>, 3<sup>+</sup>, 4<sup>+</sup>
- 1399.8<sub>10</sub>, 2<sup>+</sup>, 5<sup>+</sup>
- C 1413.3<sub>19</sub>, (7<sup>-</sup>)  
1423<sub>2</sub>
- A 1426.3<sub>9</sub>, 14<sup>+</sup>, 2.8<sub>3</sub> ps, γ<sub>1085.3</sub>341.0<sub>5</sub>(100) E2
- B 1443.6<sub>11</sub>, 11<sup>-</sup>, γ<sub>1198.6</sub>245.0<sub>5</sub>(100) E2
- D 1471.7<sub>10</sub>, (6<sup>-</sup>)  
1481<sub>2</sub>(?)  
1491<sub>2</sub>(?)
- D 1541.8<sub>13</sub>, (7<sup>-</sup>)  
1572.6<sub>6</sub>  
1580<sub>11</sub>(?), (1, 2), γ<sub>0</sub>1580<sub>11</sub>(?)
- 1604.80<sub>7</sub>, 1<sup>-</sup>, 2<sup>+</sup>, γ<sub>1271.09</sub>333.7<sub>1</sub>(37<sub>2</sub>), γ<sub>987.67</sub>617.1<sub>2</sub>(9.5<sub>20</sub>),  
γ<sub>744.15</sub>860.6<sub>1</sub>(35<sub>1</sub>), γ<sub>687.60</sub>917.0<sub>3</sub>(62<sub>4</sub>), γ<sub>45.242</sub>1559.6<sub>1</sub>(100<sub>9</sub>),  
γ<sub>0</sub>1604.9<sub>2</sub>(18<sub>5</sub>)
- D 1621.8<sub>12</sub>, (8<sup>-</sup>)  
1642.5<sub>20</sub>  
1662.37<sub>8</sub>, 1, 2<sup>+</sup>, γ<sub>987.67</sub>674.5<sub>2</sub>(23<sub>8</sub>), γ<sub>687.60</sub>975.0<sub>2</sub>(21<sub>5</sub>),  
γ<sub>45.242</sub>1617.1<sub>1</sub>(100<sub>9</sub>), γ<sub>0</sub>1662.4<sub>2</sub>(66<sub>7</sub>)
- B 1732.6<sub>15</sub>, 13<sup>-</sup>, γ<sub>1443.6</sub>289<sub>1</sub>(100) E2  
1791.3<sub>8</sub>, 1(+), γ<sub>45.242</sub>1746.1<sub>10</sub>(38<sub>8</sub>) (M1), γ<sub>0</sub>1791.3<sub>10</sub>(100) (M1)
- A 1800.9<sub>10</sub>, 16<sup>+</sup>, 2.1<sub>2</sub> ps, γ<sub>1426.3</sub>374.6<sub>5</sub>(100) E2  
1807.88<sub>7</sub>, 1, 2<sup>+</sup>, γ<sub>45.242</sub>1762.7<sub>1</sub>(100<sub>5</sub>), γ<sub>0</sub>1807.8<sub>1</sub>(37<sub>2</sub>)  
1865.41<sub>15</sub>, 1, 2<sup>+</sup>, γ<sub>687.60</sub>1177.7<sub>2</sub>(100<sub>14</sub>), γ<sub>0</sub>1865.5<sub>2</sub>(67<sub>8</sub>)  
1896.9<sub>7</sub>  
1972.62<sub>9</sub>, 1, 2<sup>+</sup>, γ<sub>45.242</sub>1927.0<sub>2</sub>(100<sub>7</sub>), γ<sub>0</sub>1972.7<sub>1</sub>(100<sub>9</sub>)  
1979.1, 1<sup>-</sup>, 2, γ<sub>744.15</sub>1234.9<sub>1</sub>(100<sub>8</sub>), γ<sub>687.60</sub>1291.6<sub>1</sub>(100<sub>8</sub>),  
γ<sub>45.242</sub>1934.1<sub>2</sub>(98<sub>8</sub>)  
1981.06<sub>16</sub>, 1, 2<sup>+</sup>, γ<sub>1110.67</sub>870.4<sub>2</sub>(100<sub>9</sub>), γ<sub>957.99</sub>1023.1<sub>3</sub>(84<sub>8</sub>),  
γ<sub>0</sub>1981.0<sub>3</sub>(74<sub>7</sub>)  
2054.2<sub>8</sub>, 1(+), γ<sub>45.242</sub>2009.0<sub>10</sub>(75<sub>14</sub>) (M1), γ<sub>0</sub>2054.2<sub>10</sub>(100) (M1)
- B 2060.6<sub>18</sub>, 15<sup>-</sup>, γ<sub>1732.6</sub>328<sub>1</sub>(100) E2  
2086.54<sub>9</sub>, 1(-), γ<sub>45.242</sub>2041.3<sub>1</sub>(100<sub>5</sub>) (E1), γ<sub>0</sub>2086.5<sub>2</sub>(56<sub>5</sub>) (E1)  
2095.7<sub>8</sub>, 1(+), γ<sub>45.242</sub>2050.5<sub>10</sub>(47<sub>15</sub>) (M1), γ<sub>0</sub>2095.7<sub>10</sub>(100) (M1)  
2155.40<sub>12</sub>, 0, 1, 2, γ<sub>1604.80</sub>550.6<sub>1</sub>(100)  
2188.8<sub>8</sub>, 1(+), γ<sub>45.242</sub>2143.6<sub>10</sub>(49<sub>3</sub>) (M1), γ<sub>0</sub>2188.8<sub>10</sub>(100) (M1)  
2190<sub>10</sub>, (1, 2<sup>+</sup>), γ<sub>0</sub>2190<sub>30</sub>(100)
- A 2203.9<sub>12</sub>, 18<sup>+</sup>, 1.17<sub>12</sub> ps, γ<sub>1800.9</sub>403.0<sub>5</sub>(100) E2  
2226.9<sub>3</sub>(?), (2), γ<sub>45.242</sub>2181.6<sub>3</sub>(100)  
2243.9<sub>10</sub>, 1, γ<sub>0</sub>2243.9<sub>10</sub>(100)  
2251.1<sub>8</sub>, 1(+), γ<sub>45.242</sub>2205.9<sub>10</sub>(100), γ<sub>0</sub>2251.1<sub>10</sub>(96<sub>13</sub>)  
2284.7<sub>8</sub>, 1(+), γ<sub>45.242</sub>2239.5<sub>10</sub>(51<sub>7</sub>) (M1), γ<sub>0</sub>2284.7<sub>10</sub>(100) (M1)
- B 2426.6<sub>21</sub>, 17<sup>-</sup>, γ<sub>2060.6</sub>366<sub>1</sub>(100) E2  
2435.6<sub>8</sub>, 1(+), γ<sub>45.242</sub>2390.4<sub>10</sub>(34<sub>7</sub>) (M1), γ<sub>0</sub>2435.6<sub>10</sub>(100) (M1)  
2440.2<sub>8</sub>, 1(+), γ<sub>45.242</sub>2395.0<sub>10</sub>(26<sub>7</sub>) (M1), γ<sub>0</sub>2440.2<sub>10</sub>(100) (M1)  
2457.3<sub>8</sub>, 1(+), γ<sub>45.242</sub>2412.1<sub>10</sub>(50<sub>9</sub>) (M1), γ<sub>0</sub>2457.3<sub>10</sub>(100) (M1)  
2494.5<sub>8</sub>, 1(+), γ<sub>45.242</sub>2449.3<sub>10</sub>(29<sub>8</sub>) (M1), γ<sub>0</sub>2494.5<sub>10</sub>(100) (M1)  
2498.5<sub>8</sub>, 1(+), γ<sub>45.242</sub>2453.3<sub>10</sub>(66<sub>12</sub>) (M1), γ<sub>0</sub>2498.5<sub>10</sub>(100) (M1)
- A 2631.7<sub>13</sub>, 20<sup>+</sup>, 0.84<sub>12</sub> ps, γ<sub>2203.9</sub>427.8<sub>5</sub>(100) E2  
2699.0<sub>8</sub>, 1(+), γ<sub>45.242</sub>2653.8<sub>10</sub>(62<sub>10</sub>) (M1), γ<sub>0</sub>2699.0<sub>10</sub>(100) (M1)  
2712.1<sub>8</sub>, 1(-), γ<sub>45.242</sub>2666.9<sub>10</sub>(100<sub>12</sub>) (E1), γ<sub>0</sub>2712.1<sub>10</sub>(44<sub>8</sub>) (E1)
- J 2750<sub>10</sub>, (0<sup>+</sup>), 120<sub>2</sub> ns, %SF=13<sub>6</sub>, %IT=87<sub>6</sub>, %α<10,  
γ<sub>2190</sub>560<sub>10</sub>(12), γ<sub>1580</sub>1170<sub>10</sub>(20), γ<sub>966.63</sub>1783<sub>10</sub>(100),  
γ<sub>687.60</sub>2062<sub>10</sub>(26), γ<sub>45.242</sub>≈2705(< 12)  
2756.2<sub>8</sub>, 1(+), γ<sub>45.242</sub>2711.0<sub>10</sub>(55<sub>16</sub>) (M1), γ<sub>0</sub>2756.2<sub>10</sub>(100) (M1)
- J 2770<sub>10</sub>, (2<sup>+</sup>), γ<sub>2750</sub>(20.16)<sub>CA</sub>(100)  
J 2817<sub>10</sub>, (4<sup>+</sup>), γ<sub>2770</sub>47.0<sub>10</sub>(100) (E2)  
2823.3<sub>8</sub>, 1(+), γ<sub>45.242</sub>2778.1<sub>10</sub>(97<sub>26</sub>) (M1), γ<sub>0</sub>2823.3<sub>10</sub>(100) (M1)  
B ≈2825, (19<sup>-</sup>), γ<sub>2426.6</sub>≈396(100) (E2)  
2838.3<sub>8</sub>, 1(+), γ<sub>45.242</sub>2793.1<sub>10</sub>(100) (M1), γ<sub>0</sub>2838.3<sub>10</sub>(92<sub>27</sub>) (M1)  
2877.8<sub>8</sub>, 1(-), γ<sub>45.242</sub>2832.6<sub>10</sub>(100) (E1), γ<sub>0</sub>2877.8<sub>10</sub>(45<sub>12</sub>) (E1)  
J 2891<sub>10</sub>, (6<sup>+</sup>), γ<sub>2817</sub>73.9<sub>10</sub>(100) (E2)  
2924.0<sub>8</sub>, (2), γ<sub>45.242</sub>2878.8<sub>10</sub>(100), γ<sub>0</sub>2924.0<sub>10</sub>(60<sub>17</sub>)

- A **2969.0**<sub>8</sub>,  $1^{(+)}$ ,  $\gamma_{45.242}$  **2923.8**<sub>10</sub>(50<sub>12</sub>) (M1),  $\gamma_0$  **2969.0**<sub>10</sub>(100) (M1)
- J **2992**<sub>10</sub>,  $(8^+)$ ,  $\gamma_{2891}$  **100.8**
- 3040**(?),  $(1^-)$
- A **3081.2**<sub>14</sub>,  $22^+$ ,  $0.65_{15}$  ps,  $\gamma_{2631.7}$  **449.2**<sub>5</sub>(100) E2
- 3143.8**<sub>8</sub>,  $1^{(+)}$ ,  $\gamma_{45.242}$  **3098.6**<sub>10</sub>(56<sub>14</sub>) (M1),  $\gamma_0$  **3143.8**<sub>10</sub>(100) (M1)
- K **3436**<sub>10</sub>(?),  $(0^+)$ ,  $\gamma_{2750}$  **684.5**<sub>7</sub> (E0)
- A **3550**<sub>2</sub>,  $(24^+)$ ,  $0.41_8$  ps,  $\gamma_{3081.2}$  **469**<sub>1</sub>(100) (E2)
- K **3580**(?),  $(2^+)$ ,  $\gamma_{2750}$  **830**
- K **3860**(?),  $\gamma_{3580}$  **280**,  $\gamma_{3040}$  **830**
- A **4039**<sub>2</sub>,  $(26^+)$ ,  $0.33_9$  ps,  $\gamma_{3550}$  **489**<sub>1</sub>(100) (E2)
- K **4360**(?),  $\gamma_{3580}$  **780**
- A **4549**<sub>2</sub>,  $(28^+)$ ,  $0.17_7$  ps,  $\gamma_{4039}$  **510**<sub>1</sub>(100) (E2)
- A  $\approx$  **5077**,  $(30^+)$ ,  $\gamma_{4549}$   $\approx$  **528**(100) (E2)

