

Adopted Levels, Gammas

| Type            | Author                          | History | Citation          | Literature Cutoff Date |
|-----------------|---------------------------------|---------|-------------------|------------------------|
| Full Evaluation | H. Iimura, J. Katakura, S. Ohya |         | NDS 180, 1 (2022) | 1-Oct-2021             |

$Q(\beta^-) = -7700$  90;  $S(n) = 11072$  17;  $S(p) = 5869$  15;  $Q(\alpha) = 260$  17    [2021Wa16](#)

Mass measurement: [1999Am05](#): Mass excess = -82675 14 keV.

 $^{126}\text{Ba}$  LevelsCross Reference (XREF) Flags

**A**  $^{126}\text{La}$   $\varepsilon$  decay (54 s+50 s)  
**B** (HI,xn $\gamma$ )

| E(level) <sup>#</sup>      | J $\pi^{\dagger}$                  | T $_{1/2}^{\ddagger}$ | XREF      | Comments                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|------------------------------------|-----------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.0 <sup>@</sup>           | 0 <sup>+</sup>                     | 100 min 2             | <b>AB</b> | $\% \varepsilon + \% \beta^+ = 100$<br>T $_{1/2}$ : from <a href="#">1976Pa11</a> . Others: 96.5 min 20 ( <a href="#">1954Ka33</a> ), 103 min 5 ( <a href="#">1962Pr09</a> ).                                                                                                                                                                                                                                                      |
| 256.02 <sup>@</sup> 6      | 2 <sup>+</sup>                     | 136 ps 5              | <b>AB</b> | J $^{\pi}$ : E2 $\gamma$ to 0 <sup>+</sup> .<br>T $_{1/2}$ : weighted average of 120 ps 20 ( <a href="#">1972Ku14</a> ), 130 ps +7-21 ( <a href="#">1979Se03</a> ), 118 ps 9 ( <a href="#">1989Sc06</a> ), 141 ps 14 ( <a href="#">1992Mo13</a> ), and 141 ps 4 ( <a href="#">1996De50</a> ); Others: 187 ps 35 ( <a href="#">1967Cl02</a> ), 137 ps 7 ( <a href="#">2001Ra27</a> ), 137.4 ps +67-61 ( <a href="#">2016Pr01</a> ). |
| 711.10 <sup>@</sup> 6      | 4 <sup>+</sup>                     | 5.99 ps 12            | <b>AB</b> | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $\varepsilon$ decay (54 s+50 s); E2 $\gamma$ to 2 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                       |
| 873.57 <sup>&amp;</sup> 6  | 2 <sup>+</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : from E2 $\gamma$ to 0 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                                  |
| 983.45 9                   | 0 <sup>+</sup>                     |                       | <b>A</b>  | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $\varepsilon$ decay (54 s+50 s); E2 $\gamma$ to 2 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                       |
| 1236.24 <sup>a</sup> 7     | 3 <sup>+</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay (54 s+50 s) and M1+E2 to 2 <sup>+</sup> state.                                                                                                                                                                                                                                                                                                   |
| 1295.99 7                  | 2 <sup>(+)</sup>                   | 0.94 ps 4             | <b>A</b>  | J $^{\pi}$ : $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay (54 s+50 s) and (E2) to 4 <sup>+</sup> state.                                                                                                                                                                                                                                                                                                         |
| 1332.47 <sup>@</sup> 8     | 6 <sup>+</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay and E2 $\gamma$ to 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                              |
| 1345.45 <sup>&amp;</sup> 7 | 4 <sup>+</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay and M1+E2 $\gamma$ to 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                           |
| 1717.61 9                  | 2 <sup>+</sup>                     |                       | <b>A</b>  | J $^{\pi}$ : $\gamma'$ s to 0 <sup>+</sup> and 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                    |
| 1742.57 <sup>f</sup> 7     | 3 <sup>-</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay and E1 $\gamma$ to 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                              |
| 1753.84 14                 | 2 <sup>+</sup> , 3, 4 <sup>+</sup> |                       | <b>A</b>  | J $^{\pi}$ : $\gamma'$ s to 2 <sup>+</sup> and 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                    |
| 1808.01 <sup>a</sup> 10    | 5 <sup>+</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : $\gamma(\theta)$ in (HI,xn $\gamma$ ) and Q $\gamma$ to 3 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                              |
| 1810.16 19                 | 2 <sup>+</sup> , 3, 4 <sup>+</sup> |                       | <b>A</b>  | J $^{\pi}$ : $\gamma'$ s to 2 <sup>+</sup> and 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                    |
| 1876.71 9                  |                                    |                       | <b>A</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1890.20 <sup>&amp;</sup> 9 | 6 <sup>(+)</sup>                   |                       | <b>AB</b> | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay.                                                                                                                                                                                                                                                                                                                                                 |
| 1936.29 9                  | 1, 3                               |                       | <b>A</b>  | J $^{\pi}$ : E1 $\gamma$ to 4 <sup>+</sup> , $\gamma$ to 6 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                          |
| 1938.85 <sup>e</sup> 7     | 5 <sup>-</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : $\gamma'$ s to 2 <sup>+</sup> and 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                    |
| 2018.30 11                 | 2 <sup>+</sup> , 3, 4 <sup>+</sup> |                       | <b>A</b>  | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay (54 s+50 s), Q $\gamma$ to 2 <sup>+</sup> .                                                                                                                                                                                                                                                                                                      |
| 2029.83 12                 | 0 <sup>(+)</sup>                   | 0.284 ps 21           | <b>A</b>  | J $^{\pi}$ : $\gamma(\theta)$ and M1+E2 $\gamma$ to 3 <sup>-</sup> .                                                                                                                                                                                                                                                                                                                                                               |
| 2056.13 <sup>f</sup> 8     | 4 <sup>-</sup>                     |                       | <b>AB</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2089.67 <sup>@</sup> 11    | 8 <sup>+</sup>                     |                       | <b>B</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2100.34 20                 |                                    |                       | <b>A</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2103.48 12                 |                                    |                       | <b>A</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2117.25 19                 |                                    |                       | <b>A</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2179.18 9                  | 2 <sup>+</sup> , 3, 4 <sup>+</sup> | 3.3 ps 11             | <b>A</b>  | J $^{\pi}$ : $\gamma'$ s to 2 <sup>+</sup> and 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                    |
| 2247.61 10                 | 3 <sup>-</sup> , 5 <sup>-</sup>    |                       | <b>A</b>  | J $^{\pi}$ : from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay and E2(+M1) $\gamma$ to 3 <sup>-</sup> .                                                                                                                                                                                                                                                                                                         |
| 2255.26 <sup>h</sup> 8     | 5                                  |                       | <b>AB</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2303.43 <sup>e</sup> 8     | 7 <sup>-</sup>                     |                       | <b>AB</b> | J $^{\pi}$ : E1 $\gamma$ to 6 <sup>+</sup> , $\gamma'$ s to 5 <sup>-</sup> and 8 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                    |
| 2378.91 12                 |                                    |                       | <b>A</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2386.02 12                 |                                    |                       | <b>A</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2399.1 4                   | 2 <sup>+</sup> , 3, 4 <sup>+</sup> |                       | <b>A</b>  | J $^{\pi}$ : $\gamma'$ s to 2 <sup>+</sup> and 4 <sup>+</sup> .                                                                                                                                                                                                                                                                                                                                                                    |

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**Adopted Levels, Gammas (continued)**

| $^{126}\text{Ba}$ Levels (continued) |                                      |                               |      |                                                                                                 |
|--------------------------------------|--------------------------------------|-------------------------------|------|-------------------------------------------------------------------------------------------------|
| E(level) <sup>#</sup>                | J <sup>π</sup> <sup>†</sup>          | T <sub>1/2</sub> <sup>‡</sup> | XREF | Comments                                                                                        |
| 2408.21 <sup>f</sup> 11              | 6 <sup>(-)</sup>                     |                               | AB   |                                                                                                 |
| 2429.61 <sup>g</sup> 9               | 6 <sup>(-)</sup>                     |                               | B    |                                                                                                 |
| 2459.17 10                           |                                      |                               | A    |                                                                                                 |
| 2484.7 <sup>a</sup> 3                | 7 <sup>+</sup>                       |                               | B    |                                                                                                 |
| 2499.19 8                            | 3 <sup>-</sup> , 4 <sup>+</sup>      |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 5 <sup>-</sup> .                                     |
| 2512.32 11                           | 4 <sup>+</sup> , 5, 6 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 4 <sup>+</sup> and 6 <sup>+</sup> .                                     |
| 2530.19 <sup>&amp;</sup> 13          | 8 <sup>(+)</sup>                     |                               | B    |                                                                                                 |
| 2566.36 12                           | 4 <sup>(+)</sup> , 5, 6 <sup>+</sup> |                               | A    | J <sup>π</sup> : γ's to 4 <sup>+</sup> and 6 <sup>(+)</sup> .                                   |
| 2567.0 8                             |                                      |                               | B    |                                                                                                 |
| 2576.81 9                            | 3, 4                                 |                               | A    | J <sup>π</sup> : γ's to 3 <sup>-</sup> , 3 <sup>+</sup> , 4 <sup>-</sup> and 4 <sup>+</sup> .   |
| 2605.57 9                            |                                      |                               | A    |                                                                                                 |
| 2609.37 <sup>h</sup> 13              | 7 <sup>(-)</sup>                     |                               | B    |                                                                                                 |
| 2657.44 11                           | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 2684.37 8                            | (4)                                  |                               | A    | J <sup>π</sup> : γ's to 3 <sup>-</sup> , 3 <sup>+</sup> , 5 <sup>-</sup> and 5 <sup>(+)</sup> . |
| 2716.27 10                           | 4 <sup>+</sup> , 5, 6 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 4 <sup>+</sup> and 6 <sup>+</sup> .                                     |
| 2732.60 9                            | 3 <sup>-</sup> , 4, 5 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 3 <sup>+</sup> and 5 <sup>-</sup> .                                     |
| 2748.60 10                           | 4 <sup>(+)</sup> , 5, 6 <sup>+</sup> |                               | A    | J <sup>π</sup> : γ's to 4 <sup>+</sup> and 6 <sup>(+)</sup> .                                   |
| 2772.94 <sup>f</sup> 15              | 8 <sup>(-)</sup>                     |                               | B    |                                                                                                 |
| 2786.61 <sup>e</sup> 11              | 9 <sup>-</sup>                       | 2.8 ps 4                      | B    | J <sup>π</sup> : E2 γ to 7 <sup>-</sup> and E1 to 8 <sup>+</sup> .                              |
| 2813.30 <sup>g</sup> 14              | 8 <sup>(-)</sup>                     |                               | B    |                                                                                                 |
| 2872.09 11                           | 2, 3, 4                              |                               | A    | J <sup>π</sup> : γ's to 3 <sup>-</sup> and 3 <sup>+</sup> .                                     |
| 2886.5 <sup>i</sup> 8                |                                      |                               | B    |                                                                                                 |
| 2942.07 <sup>@</sup> 13              | 10 <sup>+</sup>                      | 0.173 ps 21                   | B    |                                                                                                 |
| 2953.70 8                            | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 3096.48 <sup>h</sup> 16              | 9 <sup>(-)</sup>                     |                               | B    |                                                                                                 |
| 3108.0 4                             | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 3185.6 3                             | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 3236.62 <sup>f</sup> 13              | 10 <sup>(-)</sup>                    |                               | B    |                                                                                                 |
| 3243.8 <sup>a</sup> 15               | (9 <sup>+</sup> )                    |                               | B    |                                                                                                 |
| 3261.48 <sup>&amp;</sup> 16          | 10 <sup>(+)</sup>                    |                               | B    |                                                                                                 |
| 3375.37 <sup>e</sup> 13              | 11 <sup>-</sup>                      | 1.39 ps 21                    | B    |                                                                                                 |
| 3389.7 4                             |                                      |                               | B    |                                                                                                 |
| 3403.0 5                             | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 3419.91 <sup>g</sup> 19              | 10 <sup>(-)</sup>                    |                               | B    |                                                                                                 |
| 3450.5 <sup>i</sup> 5                | (8)                                  |                               | B    |                                                                                                 |
| 3484.8 7                             | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 3588.8 8                             |                                      |                               | B    |                                                                                                 |
| 3703.76 18                           | 2 <sup>+</sup> , 3, 4 <sup>+</sup>   |                               | A    | J <sup>π</sup> : γ's to 2 <sup>+</sup> and 4 <sup>+</sup> .                                     |
| 3746.84 <sup>h</sup> 23              | 11 <sup>(-)</sup>                    |                               | B    |                                                                                                 |
| 3747.40 <sup>c</sup> 16              | 12 <sup>+</sup>                      | 0.38 ps +6-4                  | B    |                                                                                                 |
| 3758.9 3                             |                                      |                               | A    |                                                                                                 |
| 3886.78 <sup>f</sup> 24              | (12 <sup>-</sup> )                   |                               | B    |                                                                                                 |
| 3887.86 <sup>b</sup> 16              | 12 <sup>+</sup>                      |                               | B    |                                                                                                 |
| 4074.09 <sup>&amp;</sup> 19          | 12 <sup>(+)</sup>                    |                               | B    |                                                                                                 |
| 4078.89 <sup>e</sup> 16              | 13 <sup>-</sup>                      | 0.35 ps 14                    | B    |                                                                                                 |
| 4093.3 <sup>a</sup> 17               | (11 <sup>+</sup> )                   |                               | B    |                                                                                                 |
| 4110.28 <sup>g</sup> 3               | 12 <sup>(-)</sup>                    |                               | B    |                                                                                                 |
| 4121.4 <sup>i</sup> 4                | (10)                                 |                               | B    |                                                                                                 |
| 4419.63 <sup>c</sup> 19              | 14 <sup>+</sup>                      | 0.69 ps 5                     | B    |                                                                                                 |
| 4456.9 <sup>h</sup> 6                | 13 <sup>(-)</sup>                    |                               | B    |                                                                                                 |
| 4670.6 <sup>b</sup> 4                | 14 <sup>(+)</sup>                    |                               | B    |                                                                                                 |

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**Adopted Levels, Gammas (continued)** $^{126}\text{Ba}$  Levels (continued)

| E(level) <sup>#</sup>      | J <sup>π</sup> <sup>†</sup> | T <sub>1/2</sub> <sup>‡</sup> | XREF |
|----------------------------|-----------------------------|-------------------------------|------|
| 4713.9 <sup>f</sup> 3      | (14 <sup>-</sup> )          |                               | B    |
| 4764.3 <sup>j</sup> 8      | (12)                        |                               | B    |
| 4845.7 <sup>g</sup> 5      | 14 <sup>(-)</sup>           |                               | B    |
| 4851.6 <sup>&amp;</sup> 7  | 14 <sup>(+)</sup>           |                               | B    |
| 4856.3 <sup>a</sup> 20     | (13 <sup>+</sup> )          |                               | B    |
| 4896.4 <sup>i</sup> 11     | (12)                        |                               | B    |
| 4900.27 <sup>e</sup> 19    | 15 <sup>-</sup>             | 0.35 ps 14                    | B    |
| 4905.2 <sup>k</sup> 7      | (13)                        |                               | B    |
| 5086.7 11                  |                             |                               | B    |
| 5122.2 <sup>j</sup> 12     | (14)                        |                               | B    |
| 5199.8 <sup>d</sup> 4      | 15                          |                               | B    |
| 5244.72 <sup>c</sup> 21    | 16 <sup>+</sup>             | 0.32 ps 6                     | B    |
| 5255.8 <sup>h</sup> 8      | (15 <sup>-</sup> )          |                               | B    |
| 5398.2 <sup>k</sup> 15     | (15)                        |                               | B    |
| 5509.6 <sup>b</sup> 5      | 16 <sup>(+)</sup>           |                               | B    |
| 5650.6 <sup>&amp;</sup> 13 | (16 <sup>+</sup> )          |                               | B    |
| 5662.5 <sup>f</sup> 6      | (16 <sup>-</sup> )          |                               | B    |
| 5707.7 <sup>g</sup> 9      | 16 <sup>(-)</sup>           |                               | B    |
| 5725.2 <sup>j</sup> 15     | (16)                        |                               | B    |
| 5806.39 <sup>e</sup> 22    | 17 <sup>-</sup>             | 0.28 ps 14                    | B    |
| 6042.5 <sup>d</sup> 4      | 17                          |                               | B    |
| 6098.2 <sup>k</sup> 16     | (17)                        |                               | B    |
| 6182.8 <sup>h</sup> 11     | (17 <sup>-</sup> )          |                               | B    |
| 6195.2 <sup>c</sup> 6      | 18 <sup>+</sup>             | <0.5 ps                       | B    |
| 6415.6 <sup>b</sup> 11     | (18 <sup>+</sup> )          |                               | B    |
| 6513.2 <sup>j</sup> 16     | (18)                        |                               | B    |
| 6530.6 <sup>&amp;</sup> 16 | (18 <sup>+</sup> )          |                               | B    |
| 6585.5 <sup>f</sup> 12     | (18 <sup>-</sup> )          |                               | B    |
| 6700.7 <sup>g</sup> 14     | (18 <sup>-</sup> )          |                               | B    |
| 6721.6 <sup>e</sup> 3      | 19 <sup>(-)</sup>           |                               | B    |
| 6968.2 <sup>k</sup> 17     | (19)                        |                               | B    |
| 6995.9 <sup>d</sup> 8      | (19)                        |                               | B    |
| 7183.2 <sup>c</sup> 12     | 20 <sup>(+)</sup>           |                               | B    |
| 7387.6 <sup>b</sup> 15     | (20 <sup>+</sup> )          |                               | B    |
| 7461.2 <sup>j</sup> 19     | (20)                        |                               | B    |
| 7636.8 <sup>e</sup> 4      | 21 <sup>(-)</sup>           |                               | B    |
| 8145.2 <sup>c</sup> 15     | 22 <sup>(+)</sup>           |                               | B    |
| 8388.6 <sup>b</sup> 18     | (22 <sup>+</sup> )          |                               | B    |
| 8621.8 <sup>e</sup> 11     | 23 <sup>(-)</sup>           |                               | B    |
| 9202.2 <sup>c</sup> 18     | (24 <sup>+</sup> )          |                               | B    |
| 9700.8 <sup>e</sup> 15     | (25 <sup>-</sup> )          |                               | B    |
| 10308.2 <sup>c</sup> 21    | (26 <sup>+</sup> )          |                               | B    |
| 10872.8 <sup>e</sup> 18    | (27 <sup>-</sup> )          |                               | B    |
| 11475.2 <sup>c</sup> 23    | (28 <sup>+</sup> )          |                               | B    |
| 12132.8 <sup>e</sup> 21    | (29 <sup>-</sup> )          |                               | B    |
| 12718 <sup>c</sup> 3       | (30 <sup>+</sup> )          |                               | B    |
| 13469.8 <sup>e</sup> 23    | (31 <sup>-</sup> )          |                               | B    |
| 14041 <sup>c</sup> 3       | (32 <sup>+</sup> )          |                               | B    |

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**Adopted Levels, Gammas (continued)** $^{126}\text{Ba}$  Levels (continued)

| E(level) <sup>#</sup>    | J <sup>π</sup> <sup>†</sup> | XREF | Comments                                                                       |
|--------------------------|-----------------------------|------|--------------------------------------------------------------------------------|
| 14878.8 <sup>e</sup> 25  | (33 <sup>-</sup> )          | B    |                                                                                |
| 15434 <sup>c</sup> 3     | (34 <sup>+</sup> )          | B    |                                                                                |
| 16895 <sup>c</sup> 3     | (36 <sup>+</sup> )          | B    |                                                                                |
| x+0.0 <sup>m</sup>       | (13)                        | B    | Additional information 1.                                                      |
|                          |                             |      | E(level): this level possibly decays to 4074, 3888 and 3748 levels (1991Wa20). |
| 180.0+x <sup>l</sup> 10  | (14)                        | B    | E(level): this level possibly decays to 4074, 3888 and 3748 levels (1991Wa20). |
| 425.0+x <sup>m</sup> 13  | (15)                        | B    |                                                                                |
| 693.0+x <sup>l</sup> 13  | (16)                        | B    |                                                                                |
| 1012.0+x <sup>m</sup> 14 | (17)                        | B    |                                                                                |
| 1377.0+x <sup>l</sup> 15 | (18)                        | B    |                                                                                |
| 1773.0+x <sup>m</sup> 16 | (19)                        | B    |                                                                                |
| 2206.0+x <sup>l</sup> 16 | (20)                        | B    |                                                                                |

<sup>†</sup> From  $\gamma(\theta)$  and linear pol. and/or RUL in (HI,xn $\gamma$ ), unless otherwise noted. Band structures in (HI,xn $\gamma$ ) are also considered.

<sup>‡</sup> From (HI,xn $\gamma$ ), unless otherwise noted.

<sup>#</sup> From a least-squares fit to E( $\gamma$ 's). Uncertainty of 1 keV is given for each E $\gamma$  without uncertainty.

@ Band(A): ground state band.

& Band(B): Band 1,  $\gamma$ -vibrational band below crossing,  $\gamma$ -vibrational band coupled with  $\pi(h_{11/2})^2$  above crossing.

<sup>a</sup> Band(C): Band 2,  $\gamma$ -vibrational band below crossing,  $\gamma$ -vibrational band coupled with  $\pi(h_{11/2})^2$  above crossing.

<sup>b</sup> Band(D): Band 3, ground state band below crossing,  $\nu(h_{11/2})^2$  above crossing.

<sup>c</sup> Band(E): Band 5, ground state band below 1st crossing,  $\pi(h_{11/2})^2$  below 2nd crossing,  $\pi(h_{11/2})^2 \nu(h_{11/2})^2$  below 3rd crossing,  $\pi(h_{11/2})^2 \nu(h_{11/2})^2 \pi(g_{7/2})^2$  above 3rd crossing.

<sup>d</sup> Band(F): band 6, could be a continuation of band 1.

<sup>e</sup> Band(G): Band 7,  $\pi(h_{11/2}, g_{7/2})$  below crossing,  $\pi(h_{11/2}, g_{7/2}) \nu(h_{11/2})^2$  above crossing.

<sup>f</sup> Band(H): Band 8,  $\pi(h_{11/2}, g_{7/2})$  below crossing,  $\pi(h_{11/2}, g_{7/2}) \nu(h_{11/2})^2$  above crossing.

<sup>g</sup> Band(I): Band 9,  $\nu(h_{11/2}, g_{7/2})$  below crossing,  $\pi(h_{11/2}, g_{9/2})$  above crossing.

<sup>h</sup> Band(J): Band 10,  $\nu(h_{11/2}, g_{7/2})$  below crossing,  $\pi(h_{11/2}, g_{9/2})$  above crossing.

<sup>i</sup> Band(K): band 11, based on the 2887-keV level.

<sup>j</sup> Band(L): Band 12,  $\nu(h_{11/2})^2 \pi(h_{11/2}, g_{7/2})$  below crossing.

<sup>k</sup> Band(M): Band 13,  $\nu(h_{11/2})^2 \pi(h_{11/2}, g_{7/2})$  below crossing.

<sup>l</sup> Band(N): Band 14,  $\nu(h_{11/2})^2 \pi(h_{11/2}, d_{5/2})$  below crossing.

<sup>m</sup> Band(O): Band 15,  $\nu(h_{11/2})^2 \pi(h_{11/2}, d_{5/2})$  below crossing.

Adopted Levels, Gammas (continued)

| $\gamma(^{126}\text{Ba})$ |                                  |                    |                    |         |                  |                    |                   |             |                                                                                    |
|---------------------------|----------------------------------|--------------------|--------------------|---------|------------------|--------------------|-------------------|-------------|------------------------------------------------------------------------------------|
| $E_i(\text{level})$       | $J_i^\pi$                        | $E_\gamma^\dagger$ | $I_\gamma^\dagger$ | $E_f$   | $J_f^\pi$        | Mult. <sup>‡</sup> | $\delta^\ddagger$ | $\alpha^\&$ | Comments                                                                           |
| 256.02                    | 2 <sup>+</sup>                   | 256.04 8           | 100                | 0.0     | 0 <sup>+</sup>   | E2                 |                   | 0.0758      | B(E2)(W.u.)=94 4                                                                   |
| 711.10                    | 4 <sup>+</sup>                   | 455.05 6           | 100                | 256.02  | 2 <sup>+</sup>   | E2                 |                   | 0.0128      | B(E2)(W.u.)=127 3                                                                  |
| 873.57                    | 2 <sup>+</sup>                   | 617.45 7           | 100.0 14           | 256.02  | 2 <sup>+</sup>   | M1+E2              | +5 +2-1           |             | $\delta$ : from $\gamma(\theta)$ in (HI,xn $\gamma$ ), other: 18 +10-5 (2002Ko02). |
|                           |                                  | 873.50 7           | 63.3 13            | 0.0     | 0 <sup>+</sup>   | E2                 |                   |             |                                                                                    |
| 983.45                    | 0 <sup>+</sup>                   | 727.4 1            | 100                | 256.02  | 2 <sup>+</sup>   | E2                 |                   |             |                                                                                    |
| 1236.24                   | 3 <sup>+</sup>                   | 362.71 9           | 15.2 5             | 873.57  | 2 <sup>+</sup>   | E2(+M1)            |                   | 0.028 3     |                                                                                    |
|                           |                                  | 525.2 1            | 12.0 3             | 711.10  | 4 <sup>+</sup>   | M1+E2              | -1.7 2            |             |                                                                                    |
|                           |                                  | 980.2 9            | 100.0 14           | 256.02  | 2 <sup>+</sup>   | M1+E2              | +5.5 +11-9        |             | $\delta$ : from 2002Ko02.                                                          |
| 1295.99                   | 2 <sup>(+)</sup>                 | 312.5 1            | 38 6               | 983.45  | 0 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 422.4 5            | 20 5               | 873.57  | 2 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 584.9 2            | 24 6               | 711.10  | 4 <sup>+</sup>   | (E2)               |                   |             |                                                                                    |
|                           |                                  | 1040.0 1           | 100 4              | 256.02  | 2 <sup>+</sup>   | (M1+E2)            | +1.9 +11-9        |             | $\delta$ : from 2002Ko02.                                                          |
|                           |                                  | 1296.0 1           | 57.4 11            | 0.0     | 0 <sup>+</sup>   |                    |                   |             |                                                                                    |
| 1332.47                   | 6 <sup>+</sup>                   | 621.35 6           | 100                | 711.10  | 4 <sup>+</sup>   | E2                 |                   |             | B(E2)(W.u.)=173 8                                                                  |
| 1345.45                   | 4 <sup>+</sup>                   | 471.85 7           | 81.2 21            | 873.57  | 2 <sup>+</sup>   | E2                 |                   | 0.0116      |                                                                                    |
|                           |                                  | 634.30 7           | 100.0 15           | 711.10  | 4 <sup>+</sup>   | M1+E2              | +1.4 +80-3        |             | $\delta$ : from 2002Ko02.                                                          |
|                           |                                  | 1089.52 9          | 41.8 16            | 256.02  | 2 <sup>+</sup>   | Q                  |                   |             |                                                                                    |
| 1717.61                   | 2 <sup>+</sup>                   | 1006.6 1           | 34.4 14            | 711.10  | 4 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 1461.5 1           | 100.0 24           | 256.02  | 2 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 1717.4 5           | 55 3               | 0.0     | 0 <sup>+</sup>   |                    |                   |             |                                                                                    |
| 1742.57                   | 3 <sup>-</sup>                   | 397.0 5            | <0.24              | 1345.45 | 4 <sup>+</sup>   |                    |                   |             | $E_\gamma$ : not observed in (HI,xn $\gamma$ ).                                    |
|                           |                                  | 1031.40 9          | 60.3 10            | 711.10  | 4 <sup>+</sup>   | E1                 |                   |             |                                                                                    |
|                           |                                  | 1486.60 9          | 100.0 17           | 256.02  | 2 <sup>+</sup>   | D                  |                   |             |                                                                                    |
| 1753.84                   | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 408.4 5            | 15 7               | 1345.45 | 4 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 457.8 3            | 41 9               | 1295.99 | 2 <sup>(+)</sup> |                    |                   |             |                                                                                    |
|                           |                                  | 517.6 2            | 21 6               | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 880.3 5            | 100 12             | 873.57  | 2 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 1042.8 3           | 25.5 9             | 711.10  | 4 <sup>+</sup>   |                    |                   |             |                                                                                    |
| 1808.01                   | 5 <sup>+</sup>                   | 462.5 3            | 8.4 14             | 1345.45 | 4 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 475.4 4            | 8.3 10             | 1332.47 | 6 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 571.78 9           | 100 8              | 1236.24 | 3 <sup>+</sup>   | Q                  |                   |             |                                                                                    |
|                           |                                  | 1096.6 3           | 61 16              | 711.10  | 4 <sup>+</sup>   | D                  |                   |             |                                                                                    |
| 1810.16                   | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 573.7 5            | 100 14             | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 936.6 5            | 15 3               | 873.57  | 2 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 1099.1 2           | 73 49              | 711.10  | 4 <sup>+</sup>   |                    |                   |             |                                                                                    |
| 1876.71                   |                                  | 640.5 1            | 40.2 15            | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 1003.1 1           | 63.2 17            | 873.57  | 2 <sup>+</sup>   |                    |                   |             |                                                                                    |
|                           |                                  | 1620.8 2           | 100 5              | 256.02  | 2 <sup>+</sup>   |                    |                   |             |                                                                                    |
| 1890.20                   | 6 <sup>(+)</sup>                 | 544.75 7           | 100.0 11           | 1345.45 | 4 <sup>+</sup>   | Q                  |                   |             |                                                                                    |
|                           |                                  | 557.89 19          | 21 3               | 1332.47 | 6 <sup>+</sup>   | (M1+E2)            | +2.8 +24-9        |             |                                                                                    |
|                           |                                  | 1178.0 5           | 12.0 22            | 711.10  | 4 <sup>+</sup>   |                    |                   |             | $E_\gamma$ : not observed in $^{126}\text{La}$ $\varepsilon$ decay.                |
| 1936.29                   | 1,3                              | 700.0 3            | 60 18              | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |                                                                                    |

Adopted Levels, Gammas (continued)

| $\gamma(^{126}\text{Ba})$ (continued) |                                  |                    |                    |         |                                  |                    |                   |             |                                                                                          |
|---------------------------------------|----------------------------------|--------------------|--------------------|---------|----------------------------------|--------------------|-------------------|-------------|------------------------------------------------------------------------------------------|
| $E_i(\text{level})$                   | $J_i^\pi$                        | $E_\gamma^\dagger$ | $I_\gamma^\dagger$ | $E_f$   | $J_f^\pi$                        | Mult. <sup>‡</sup> | $\delta^\ddagger$ | $\alpha^\&$ | Comments                                                                                 |
| 1936.29                               | 1,3                              | 1062.6 1           | 45 13              | 873.57  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1680.4 1           | 100 6              | 256.02  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 1938.85                               | 5 <sup>-</sup>                   | 606.40 10          | 20.5 4             | 1332.47 | 6 <sup>+</sup>                   | E1                 |                   |             |                                                                                          |
|                                       |                                  | 1227.78 9          | 100 8              | 711.10  | 4 <sup>+</sup>                   | E1                 |                   |             |                                                                                          |
| 2018.30                               | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 672.8 3            | 7.6 12             | 1345.45 | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1144.6 3           | 4.8 18             | 873.57  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1307.1 5           | 26 5               | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1762.3 1           | 100 4              | 256.02  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2029.83                               | 0 <sup>(+)</sup>                 | 1773.8 1           | 100                | 256.02  | 2 <sup>+</sup>                   | Q                  |                   |             | Mult.: from $\gamma\gamma(\theta)$ in $^{126}\text{La}$ $\varepsilon$ decay (54 s+50 s). |
| 2056.13                               | 4 <sup>-</sup>                   | 117.0 5            | 4.1 8              | 1938.85 | 5 <sup>-</sup>                   |                    |                   |             | $E_\gamma$ : not observed in (HI,xn $\gamma$ ).                                          |
|                                       |                                  | 313.45 15          | 76 6               | 1742.57 | 3 <sup>-</sup>                   | M1+E2              | -2.0 +9-13        | 0.0403 11   |                                                                                          |
|                                       |                                  | 820.0 2            | 6.3 3              | 1236.24 | 3 <sup>+</sup>                   |                    |                   |             | $E_\gamma$ : not observed in (HI,xn $\gamma$ ).                                          |
|                                       |                                  | 1345.00 9          | 100.0 17           | 711.10  | 4 <sup>+</sup>                   | D                  |                   |             |                                                                                          |
| 2089.67                               | 8 <sup>+</sup>                   | 757.2 1            | 100                | 1332.47 | 6 <sup>+</sup>                   | E2                 |                   |             | B(E2)(W.u.)=213 16                                                                       |
| 2100.34                               |                                  | 346.5 5            | <22                | 1753.84 | 2 <sup>+</sup> ,3,4 <sup>+</sup> |                    |                   |             |                                                                                          |
|                                       |                                  | 1844.3 2           | 100 4              | 256.02  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2103.48                               |                                  | 757.9 5            | 66 15              | 1345.45 | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1392.4 1           | 100 3              | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2117.25                               |                                  | 771.8 2            | 66.7 21            | 1345.45 | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 880.8 5            | 100 14             | 1236.24 | 3 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1406.3 5           | 45.1 18            | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2179.18                               | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 1305.5 5           | 31 5               | 873.57  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1468.1 1           | 33.2 25            | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1923.1 1           | 100 4              | 256.02  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2247.61                               | 3 <sup>-</sup> ,5 <sup>-</sup>   | 505.1 2            | 62 10              | 1742.57 | 3 <sup>-</sup>                   | E2(+M1)            |                   | 0.0114 17   |                                                                                          |
|                                       |                                  | 902.1 2            | 8.6 7              | 1345.45 | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1536.5 1           | 100 3              | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2255.26                               | 5                                | 316.49 9           | 13.0 11            | 1938.85 | 5 <sup>-</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 909.75 7           | 100 6              | 1345.45 | 4 <sup>+</sup>                   | D                  |                   |             |                                                                                          |
|                                       |                                  | 922.8 5            | 6.1 17             | 1332.47 | 6 <sup>+</sup>                   |                    |                   |             | $E_\gamma$ : not observed in (HI,xn $\gamma$ ).                                          |
|                                       |                                  | 1545 1             | 5.1 11             | 711.10  | 4 <sup>+</sup>                   |                    |                   |             | $E_\gamma$ : not observed in $^{126}\text{La}$ $\varepsilon$ decay.                      |
| 2303.43                               | 7 <sup>-</sup>                   | 213.6 5            | 2.4 6              | 2089.67 | 8 <sup>+</sup>                   |                    |                   |             | $E_\gamma$ : not observed in $^{126}\text{La}$ $\varepsilon$ decay.                      |
|                                       |                                  | 364.4 3            | 5.9 18             | 1938.85 | 5 <sup>-</sup>                   |                    |                   |             | $E_\gamma$ : not observed in $^{126}\text{La}$ $\varepsilon$ decay.                      |
|                                       |                                  | 970.97 1           | 100 11             | 1332.47 | 6 <sup>+</sup>                   | E1                 |                   |             | B(E1)(W.u.)=8.E-5 3                                                                      |
| 2378.91                               |                                  | 1667.8 1           | 100                | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2386.02                               |                                  | 1674.9 1           | 100                | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2399.1                                | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 1687.9 5           | 60 11              | 711.10  | 4 <sup>+</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 2143.1 5           | 100 56             | 256.02  | 2 <sup>+</sup>                   |                    |                   |             |                                                                                          |
| 2408.21                               | 6 <sup>(-)</sup>                 | 352.06 9           | 93 4               | 2056.13 | 4 <sup>-</sup>                   | Q                  |                   |             |                                                                                          |
|                                       |                                  | 469.2 4            | 100 @ 30           | 1938.85 | 5 <sup>-</sup>                   |                    |                   |             |                                                                                          |
|                                       |                                  | 1076.1 3           | 54 13              | 1332.47 | 6 <sup>+</sup>                   | D                  |                   |             | $E_\gamma$ : not observed in $^{126}\text{La}$ $\varepsilon$ decay.                      |
| 2429.61                               | 6 <sup>(-)</sup>                 | 174.4 1            | 81 8               | 2255.26 | 5                                | D(+Q)              | +0.03 5           |             |                                                                                          |
|                                       |                                  | 373.4 1            | 100 11             | 2056.13 | 4 <sup>-</sup>                   | Q                  |                   |             |                                                                                          |

Adopted Levels, Gammas (continued)

| $\gamma(^{126}\text{Ba})$ (continued) |                                    |            |            |         |                  |                    |                   |             |
|---------------------------------------|------------------------------------|------------|------------|---------|------------------|--------------------|-------------------|-------------|
| $E_i(\text{level})$                   | $J_i^\pi$                          | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$        | Mult. <sup>‡</sup> | $\delta^\ddagger$ | $\alpha^\&$ |
| 2429.61                               | 6 <sup>(-)</sup>                   | 490.8 1    | 78 14      | 1938.85 | 5 <sup>-</sup>   | (M1+E2)            | -1.2 4            | 0.0118 7    |
|                                       |                                    | 1097.1 2   | 94 11      | 1332.47 | 6 <sup>+</sup>   |                    |                   |             |
| 2459.17                               |                                    | 520.3 2    | 100 19     | 1938.85 | 5 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 1126.5 2   | 9.8 5      | 1332.47 | 6 <sup>+</sup>   | Q                  |                   |             |
|                                       |                                    | 1748.1 1   | 81 3       | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
| 2484.7                                | 7 <sup>+</sup>                     | 676.7 3    | 100 9      | 1808.01 | 5 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1153       | 30 9       | 1332.47 | 6 <sup>+</sup>   |                    |                   |             |
| 2499.19                               | 3 <sup>-</sup> ,4 <sup>+</sup>     | 560.2 3    | 10 5       | 1938.85 | 5 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 756.6 3    | 99 20      | 1742.57 | 3 <sup>-</sup>   | Q                  |                   |             |
|                                       |                                    | 1203.2 1   | 72 5       | 1295.99 | 2 <sup>(+)</sup> |                    |                   |             |
|                                       |                                    | 1262.9 1   | 100 15     | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1625.6 3   | 19.8 13    | 873.57  | 2 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1788.1 1   | 37.2 20    | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
| 2512.32                               | 4 <sup>+</sup> ,5,6 <sup>+</sup>   | 573.5 5    | 26 4       | 1938.85 | 5 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 1166.9 2   | 12.7 5     | 1345.45 | 4 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1179.8 3   | 5.6 19     | 1332.47 | 6 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1801.2 1   | 100 3      | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
| 2530.19                               | 8 <sup>(+)</sup>                   | 440        | 6.3 21     | 2089.67 | 8 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 640.0 1    | 100 16     | 1890.20 | 6 <sup>(+)</sup> | Q                  |                   |             |
| 2566.36                               | 4 <sup>(+)</sup> ,5,6 <sup>+</sup> | 627.7 5    | 60 13      | 1938.85 | 5 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 676.3 5    | 43 10      | 1890.20 | 6 <sup>(+)</sup> |                    |                   |             |
|                                       |                                    | 1220.9 1   | 100.0 21   | 1345.45 | 4 <sup>+</sup>   | D+Q                | -0.13 5           |             |
| 2567.0                                |                                    | 137        | 100        | 2429.61 | 6 <sup>(-)</sup> |                    |                   |             |
| 2576.81                               | 3,4                                | 520.7 3    | 16 3       | 2056.13 | 4 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 834.2 1    | 30.2 13    | 1742.57 | 3 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 1231.3 5   | 15.1 25    | 1345.45 | 4 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1340.6 1   | 100 13     | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1865.9 3   | 20.4 13    | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
| 2605.57                               |                                    | 1894.4 1   | 78 3       | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 2349.6 1   | 100 3      | 256.02  | 2 <sup>+</sup>   |                    |                   |             |
| 2609.37                               | 7 <sup>(-)</sup>                   | 179.8 1    | 100        | 2429.61 | 6 <sup>(-)</sup> |                    |                   |             |
| 2657.44                               | 2 <sup>+</sup> ,3,4 <sup>+</sup>   | 1946.3 3   | 16.7 9     | 711.10  | 4 <sup>+</sup>   | D+Q                | -0.13 5           |             |
|                                       |                                    | 2401.4 1   | 100 5      | 256.02  | 2 <sup>+</sup>   |                    |                   |             |
| 2684.37                               | (4)                                | 628.2 1    | 100 17     | 2056.13 | 4 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 745.5 1    | 14 3       | 1938.85 | 5 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 876.3 5    | 11.7 22    | 1808.01 | 5 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 941.8 2    | 12.4 5     | 1742.57 | 3 <sup>-</sup>   |                    |                   |             |
|                                       |                                    | 1448.1 1   | 52.4 9     | 1236.24 | 3 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 1973.3 1   | 48.9 17    | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
| 2716.27                               | 4 <sup>+</sup> ,5,6 <sup>+</sup>   | 1383.7 1   | 23.1 6     | 1332.47 | 6 <sup>+</sup>   |                    |                   |             |
|                                       |                                    | 2005.2 1   | 100 3      | 711.10  | 4 <sup>+</sup>   |                    |                   |             |
| 2732.60                               | 3 <sup>-</sup> ,4,5 <sup>+</sup>   | 676.4 5    | 86 16      | 2056.13 | 4 <sup>-</sup>   |                    |                   |             |

Adopted Levels, Gammas (continued)

$\gamma(^{126}\text{Ba})$  (continued)

| $E_i(\text{level})$ | $J_i^\pi$                          | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$                        | Mult. <sup>‡</sup> | $\delta^{\ddagger}$ | $\alpha^\&$ | Comments                |
|---------------------|------------------------------------|------------|------------|---------|----------------------------------|--------------------|---------------------|-------------|-------------------------|
| ∞                   | 3 <sup>-</sup> ,4,5 <sup>+</sup>   | 793.7 1    | 54 3       | 1938.85 | 5 <sup>-</sup>                   |                    |                     |             |                         |
|                     |                                    | 1387.2 5   | 57 3       | 1345.45 | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 1496.4 2   | 100 5      | 1236.24 | 3 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 2021.5 1   | 65 3       | 711.10  | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 4 <sup>(+)</sup> ,5,6 <sup>+</sup> | 809.7 1    | 86.9 20    | 1938.85 | 5 <sup>-</sup>                   |                    |                     |             |                         |
|                     |                                    | 858.3 3    | 64 3       | 1890.20 | 6 <sup>(+)</sup>                 |                    |                     |             |                         |
|                     |                                    | 1403.2 1   | 100 3      | 1345.45 | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 2037.6 5   | 35.4 20    | 711.10  | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 2772.94                            | 364.8 2    | 100 2      | 2408.21 | 6 <sup>(-)</sup>                 | Q                  |                     |             |                         |
|                     |                                    | 469.4 5    | @          | 2303.43 | 7 <sup>-</sup>                   |                    |                     |             |                         |
|                     | 2786.61                            | 483.2 1    | 96 7       | 2303.43 | 7 <sup>-</sup>                   | E2                 |                     | 0.0108      | B(E2)(W.u.)=100 16      |
|                     |                                    | 696.8 1    | 100 11     | 2089.67 | 8 <sup>+</sup>                   | E1                 |                     |             | B(E1)(W.u.)=0.000145 25 |
|                     | 2813.30                            | 204.0 1    | 100 17     | 2609.37 | 7 <sup>(-)</sup>                 | D+Q                | -0.34 5             |             |                         |
|                     |                                    | 246        | 33 8       | 2567.0  | D                                |                    |                     |             |                         |
|                     |                                    | 383.5 2    | 15 3       | 2429.61 | 6 <sup>(-)</sup>                 | Q                  |                     |             |                         |
|                     | 2872.09                            | 1129.5 1   | 100 3      | 1742.57 | 3 <sup>-</sup>                   |                    |                     |             |                         |
|                     |                                    | 1635.9 2   | 28.8 16    | 1236.24 | 3 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 1554       | 100        | 1332.47 | 6 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 2886.5                             | 852.4 1    | 100        | 2089.67 | 8 <sup>+</sup>                   | E2                 |                     |             | B(E2)(W.u.)=194 24      |
|                     |                                    | 2942.07    |            | 2179.18 | 2 <sup>+</sup> ,3,4 <sup>+</sup> |                    |                     |             |                         |
|                     | 2953.70                            | 774.6 5    | 18.6 7     | 1742.57 | 3 <sup>-</sup>                   |                    |                     |             |                         |
|                     |                                    | 1211.2 1   | 100 4      | 1295.99 | 2 <sup>(+)</sup>                 |                    |                     |             |                         |
|                     |                                    | 1657.6 3   | 18.2 15    | 711.10  | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 2242.6 1   | 65 3       | 256.02  | 2 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 3096.48                            | 2697.6 1   | 91 3       | 2813.30 | 8 <sup>(-)</sup>                 | D+Q                | -0.37 5             |             |                         |
|                     |                                    | 283.2 1    | 100 10     | 2609.37 | 7 <sup>(-)</sup>                 | Q                  |                     |             |                         |
|                     |                                    | 487.0 2    | 53 10      | 711.10  | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 3108.0                             | 2396.8 5   | 100 50     | 256.02  | 2 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 2852.0 5   | 93 7       | 711.10  | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 3185.6                             | 2474.5 3   | 90 7       | 256.02  | 2 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 2929.6 5   | 100 7      | 2786.61 | 9 <sup>-</sup>                   |                    |                     |             |                         |
|                     | 3236.62                            | 450.0 1    | 41 6       | 2772.94 | 8 <sup>(-)</sup>                 | Q                  |                     |             |                         |
|                     |                                    | 463.7 1    | 100 2      | 2484.7  | 7 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 3243.8                             | 759.1 14   | 100        | 2530.19 | 8 <sup>(+)</sup>                 | Q                  |                     |             |                         |
|                     | 3261.48                            | 731.3 1    | 100 13     | 2089.67 | 8 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 1172       | 15 4       | 2942.07 | 10 <sup>+</sup>                  | D+Q                | -0.05 5             |             |                         |
|                     | 3375.37                            | 433.3 1    | 6.5 16     | 2786.61 | 9 <sup>-</sup>                   | E2                 |                     |             | B(E2)(W.u.)=144 22      |
|                     |                                    | 588.7 1    | 100 5      | 2942.07 | 10 <sup>+</sup>                  |                    |                     |             |                         |
|                     | 3389.7                             | 447.6 3    | 100        | 711.10  | 4 <sup>+</sup>                   |                    |                     |             |                         |
|                     | 3403.0                             | 2691.9 5   | 100 8      | 256.02  | 2 <sup>+</sup>                   |                    |                     |             |                         |
|                     |                                    | 3146.8 8   | 89 11      | 3096.48 | 9 <sup>(-)</sup>                 | D+Q                | -0.5 1              |             |                         |
|                     | 3419.91                            | 323.4 1    | 57 7       | 2813.30 | 8 <sup>(-)</sup>                 | Q                  |                     |             |                         |
|                     |                                    | 606.5 5    | 100 12     |         |                                  |                    |                     |             |                         |

Adopted Levels, Gammas (continued)

γ(<sup>126</sup>Ba) (continued)

| E <sub>i</sub> (level) | J <sup>π</sup> <sub>i</sub>      | E <sub>γ</sub> <sup>†</sup> | I <sub>γ</sub> <sup>†</sup> | E <sub>f</sub> | J <sup>π</sup> <sub>f</sub> | Mult. <sup>‡</sup> | δ <sup>‡</sup> | Comments                              |
|------------------------|----------------------------------|-----------------------------|-----------------------------|----------------|-----------------------------|--------------------|----------------|---------------------------------------|
| 3450.5                 | (8)                              | 564                         | 23 15                       | 2886.5         |                             | Q                  |                |                                       |
|                        |                                  | 1360.8 6                    | 100 15                      | 2089.67        | 8 <sup>+</sup>              |                    |                |                                       |
| 3484.8                 | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 2773.5 10                   | 100 7                       | 711.10         | 4 <sup>+</sup>              |                    |                |                                       |
|                        |                                  | 3228.9 10                   | 23 4                        | 256.02         | 2 <sup>+</sup>              |                    |                |                                       |
| 3588.8                 |                                  | 327                         | 100                         | 3261.48        | 10 <sup>(+)</sup>           |                    |                |                                       |
|                        |                                  | 1059                        | @                           | 2530.19        | 8 <sup>(+)</sup>            |                    |                |                                       |
| 3703.76                | 2 <sup>+</sup> ,3,4 <sup>+</sup> | 2992.6 3                    | 44 13                       | 711.10         | 4 <sup>+</sup>              |                    |                |                                       |
|                        |                                  | 3447.7 2                    | 100 3                       | 256.02         | 2 <sup>+</sup>              |                    |                |                                       |
| 3746.84                | 11 <sup>(-)</sup>                | 326.7 3                     | 28 8                        | 3419.91        | 10 <sup>(-)</sup>           | D+Q                | -0.5 1         |                                       |
|                        |                                  | 650.5 2                     | 100 14                      | 3096.48        | 9 <sup>(-)</sup>            | Q                  |                |                                       |
| 3747.40                | 12 <sup>+</sup>                  | 486                         | 1.6 6                       | 3261.48        | 10 <sup>(+)</sup>           |                    |                |                                       |
|                        |                                  | 805.3 1                     | 100 3                       | 2942.07        | 10 <sup>+</sup>             | E2                 |                | B(E2)(W.u.)=116 15                    |
| 3758.9                 |                                  | 1702.7 3                    | 100                         | 2056.13        | 4 <sup>-</sup>              |                    |                |                                       |
| 3886.78                | (12 <sup>-</sup> )               | 511                         | 15 4                        | 3375.37        | 11 <sup>-</sup>             |                    |                |                                       |
|                        |                                  | 650.2 2                     | 100 15                      | 3236.62        | 10 <sup>(-)</sup>           |                    |                |                                       |
| 3887.86                | 12 <sup>+</sup>                  | 945.8 1                     | 100                         | 2942.07        | 10 <sup>+</sup>             | E2                 |                |                                       |
| 4074.09                | 12 <sup>(+)</sup>                | 812.6 1                     | 100 14                      | 3261.48        | 10 <sup>(+)</sup>           | Q                  |                |                                       |
|                        |                                  | 1132                        | 21 3                        | 2942.07        | 10 <sup>+</sup>             |                    |                |                                       |
| 4078.89                | 13 <sup>-</sup>                  | 703.5 1                     | 100                         | 3375.37        | 11 <sup>-</sup>             | E2                 |                | B(E2)(W.u.)=2.5×10 <sup>2</sup> +16-8 |
| 4093.3                 | (11 <sup>+</sup> )               | 849.5 8                     | 100 @                       | 3243.8         | (9 <sup>+</sup> )           |                    |                |                                       |
| 4110.2                 | 12 <sup>(-)</sup>                | 363.6 5                     | 16 8                        | 3746.84        | 11 <sup>(-)</sup>           |                    |                |                                       |
|                        |                                  | 690.3 2                     | 100 12                      | 3419.91        | 10 <sup>(-)</sup>           | Q                  |                |                                       |
| 4121.4                 | (10)                             | 671                         | 19 10                       | 3450.5         | (8)                         |                    |                |                                       |
|                        |                                  | 860                         | 26 10                       | 3261.48        | 10 <sup>(+)</sup>           | Q                  |                |                                       |
|                        |                                  | 1179.4 4                    | 100 14                      | 2942.07        | 10 <sup>+</sup>             |                    |                |                                       |
| 4419.63                | 14 <sup>+</sup>                  | 532                         | 4.2 9                       | 3887.86        | 12 <sup>+</sup>             | E2                 |                | B(E2)(W.u.)=21 5                      |
|                        |                                  | 672.2 1                     | 100 8                       | 3747.40        | 12 <sup>+</sup>             | E2                 |                | B(E2)(W.u.)=153 12                    |
| 4456.9                 | 13 <sup>(-)</sup>                | 347                         | 24 8                        | 4110.2         | 12 <sup>(-)</sup>           |                    |                |                                       |
|                        |                                  | 710                         | 100 12                      | 3746.84        | 11 <sup>(-)</sup>           | Q                  |                |                                       |
| 4670.6                 | 14 <sup>(+)</sup>                | 783.0 4                     | 100 15                      | 3887.86        | 12 <sup>+</sup>             | Q                  |                |                                       |
|                        |                                  | 922.9 4                     | 42 6                        | 3747.40        | 12 <sup>+</sup>             |                    |                |                                       |
| 4713.9                 | (14 <sup>-</sup> )               | 827.1 2                     | 100                         | 3886.78        | (12 <sup>-</sup> )          | Q                  |                |                                       |
| 4764.3                 | (12)                             | 1017 <sup>b</sup>           | 100 <sup>b#</sup>           | 3747.40        | 12 <sup>+</sup>             |                    |                |                                       |
| 4845.7                 | 14 <sup>(-)</sup>                | 389                         | 45 18                       | 4456.9         | 13 <sup>(-)</sup>           |                    |                |                                       |
|                        |                                  | 735.4 4                     | 100 18                      | 4110.2         | 12 <sup>(-)</sup>           | Q                  |                |                                       |
| 4851.6                 | 14 <sup>(+)</sup>                | 777.7 9                     | 100 20                      | 4074.09        | 12 <sup>(+)</sup>           | Q                  |                |                                       |
|                        |                                  | 1104                        | 70 7                        | 3747.40        | 12 <sup>+</sup>             |                    |                |                                       |
| 4856.3                 | (13 <sup>+</sup> )               | 763                         | 100                         | 4093.3         | (11 <sup>+</sup> )          | Q                  |                |                                       |
| 4896.4                 | (12)                             | 775                         | 100                         | 4121.4         | (10)                        |                    |                |                                       |
| 4900.27                | 15 <sup>-</sup>                  | 821.4 1                     | 100                         | 4078.89        | 13 <sup>-</sup>             | E2                 |                | B(E2)(W.u.)=1.2×10 <sup>2</sup> +8-4  |
| 4905.2                 | (13)                             | 141                         | 100 29                      | 4764.3         | (12)                        | D                  |                |                                       |

Adopted Levels, Gammas (continued)

| $\gamma(^{126}\text{Ba})$ (continued) |                    |                      |                        |         |                    |                    | Comments                               |
|---------------------------------------|--------------------|----------------------|------------------------|---------|--------------------|--------------------|----------------------------------------|
| $E_i(\text{level})$                   | $J_i^\pi$          | $E_\gamma^\dagger$   | $I_\gamma^\dagger$     | $E_f$   | $J_f^\pi$          | Mult. <sup>‡</sup> |                                        |
| 4905.2                                | (13)               | 784                  | 36 14                  | 4121.4  | (10)               |                    |                                        |
|                                       |                    | 1017 <sup>b</sup>    | 43 <sup>b#</sup>       | 3887.86 | 12 <sup>+</sup>    |                    |                                        |
| 5086.7                                |                    | 241                  | 100                    | 4845.7  | 14 <sup>(-)</sup>  |                    |                                        |
| 5122.2                                | (14)               | 217                  | 100                    | 4905.2  | (13)               | D                  |                                        |
| 5199.8                                | 15                 | 780.2 3              | 100                    | 4419.63 | 14 <sup>+</sup>    | D                  |                                        |
| 5244.72                               | 16 <sup>+</sup>    | 825.1 1              | 100                    | 4419.63 | 14 <sup>+</sup>    | E2                 | B(E2)(W.u.)=123 +29-20                 |
| 5255.8                                | (15 <sup>-</sup> ) | 410                  | 35 12                  | 4845.7  | 14 <sup>(-)</sup>  |                    |                                        |
|                                       |                    | 799                  | 100 24                 | 4456.9  | 13 <sup>(-)</sup>  |                    |                                        |
| 5398.2                                | (15)               | 276                  | 100                    | 5122.2  | (14)               | D                  |                                        |
| 5509.6                                | 16 <sup>(+)</sup>  | 839.0 3              | 100                    | 4670.6  | 14 <sup>(+)</sup>  | Q                  |                                        |
| 5650.6                                | (16 <sup>+</sup> ) | 799                  | 100                    | 4851.6  | 14 <sup>(+)</sup>  |                    |                                        |
| 5662.5                                | (16 <sup>-</sup> ) | 948.6 5              | 100                    | 4713.9  | (14 <sup>-</sup> ) |                    |                                        |
| 5707.7                                | 16 <sup>(-)</sup>  | 452                  | 38 15                  | 5255.8  | (15 <sup>-</sup> ) |                    |                                        |
|                                       |                    | 862                  | 100 15                 | 4845.7  | 14 <sup>(-)</sup>  | Q                  |                                        |
| 5725.2                                | (16)               | 327                  | 100 29                 | 5398.2  | (15)               | D                  |                                        |
|                                       |                    | 603                  | 57 29                  | 5122.2  | (14)               |                    |                                        |
| 5806.39                               | 17 <sup>-</sup>    | 906.1 1              | 100                    | 4900.27 | 15 <sup>-</sup>    | E2                 | B(E2)(W.u.)=9.E+1 +9-3                 |
| 6042.5                                | 17                 | 797.5 4              | 50 20                  | 5244.72 | 16 <sup>+</sup>    |                    |                                        |
|                                       |                    | 842.9 4              | 100 20                 | 5199.8  | 15                 | Q                  |                                        |
| 6098.2                                | (17)               | 373                  | 100 50                 | 5725.2  | (16)               |                    |                                        |
|                                       |                    | 700                  | 75 25                  | 5398.2  | (15)               |                    |                                        |
| 6182.8                                | (17 <sup>-</sup> ) | 475                  | 62 18                  | 5707.7  | 16 <sup>(-)</sup>  |                    |                                        |
|                                       |                    | 927                  | 100 50                 | 5255.8  | (15 <sup>-</sup> ) |                    |                                        |
| 6195.2                                | 18 <sup>+</sup>    | 950.8 5              | 100                    | 5244.72 | 16 <sup>+</sup>    | E2                 | B(E2)(W.u.)>39                         |
| 6415.6                                | (18 <sup>+</sup> ) | 906                  | 100                    | 5509.6  | 16 <sup>(+)</sup>  |                    |                                        |
| 6513.2                                | (18)               | 415                  | 83 17                  | 6098.2  | (17)               |                    |                                        |
|                                       |                    | 788                  | 100 33                 | 5725.2  | (16)               |                    |                                        |
| 6530.6                                | (18 <sup>+</sup> ) | 880                  | 100                    | 5650.6  | (16 <sup>+</sup> ) |                    |                                        |
| 6585.5                                | (18 <sup>-</sup> ) | 923                  | 100                    | 5662.5  | (16 <sup>-</sup> ) | Q                  |                                        |
| 6700.7                                | (18 <sup>-</sup> ) | 993                  | 100                    | 5707.7  | 16 <sup>(-)</sup>  |                    |                                        |
| 6721.6                                | 19 <sup>(-)</sup>  | 915.2 <sup>a</sup> 2 | 100 <sup>a</sup>       | 5806.39 | 17 <sup>-</sup>    | Q                  |                                        |
| 6968.2                                | (19)               | 455                  | @                      | 6513.2  | (18)               |                    |                                        |
|                                       |                    | 870                  | 100 50                 | 6098.2  | (17)               |                    |                                        |
| 6995.9                                | (19)               | 802                  | 100 40                 | 6195.2  | 18 <sup>+</sup>    |                    |                                        |
|                                       |                    | 952                  | 1.2×10 <sup>2</sup> 20 | 6042.5  | 17                 |                    | I <sub>γ</sub> : ΔI <sub>γ</sub> =200. |
| 7183.2                                | 20 <sup>(+)</sup>  | 988                  | 100                    | 6195.2  | 18 <sup>+</sup>    | Q                  |                                        |
| 7387.6                                | (20 <sup>+</sup> ) | 972                  | 100                    | 6415.6  | (18 <sup>+</sup> ) |                    |                                        |
| 7461.2                                | (20)               | 948                  | 100                    | 6513.2  | (18)               |                    |                                        |
| 7636.8                                | 21 <sup>(-)</sup>  | 915.2 <sup>a</sup> 2 | 100 <sup>a</sup>       | 6721.6  | 19 <sup>(-)</sup>  | Q                  |                                        |
| 8145.2                                | 22 <sup>(+)</sup>  | 962                  | 100                    | 7183.2  | 20 <sup>(+)</sup>  | Q                  |                                        |
| 8388.6                                | (22 <sup>+</sup> ) | 1001                 | 100                    | 7387.6  | (20 <sup>+</sup> ) |                    |                                        |
| 8621.8                                | 23 <sup>(-)</sup>  | 985                  | 100                    | 7636.8  | 21 <sup>(-)</sup>  | Q                  |                                        |

**Adopted Levels, Gammas (continued)**

$\gamma(^{126}\text{Ba})$  (continued)

| $E_i(\text{level})$ | $J_i^\pi$          | $E_\gamma^\dagger$ | $I_\gamma^\dagger$ | $E_f$   | $J_f^\pi$          | $E_i(\text{level})$ | $J_i^\pi$ | $E_\gamma^\dagger$ | $I_\gamma^\dagger$ | $E_f$    | $J_f^\pi$ | Mult. <sup>‡</sup> |
|---------------------|--------------------|--------------------|--------------------|---------|--------------------|---------------------|-----------|--------------------|--------------------|----------|-----------|--------------------|
| 9202.2              | (24 <sup>+</sup> ) | 1057               | 100                | 8145.2  | 22 <sup>(+)</sup>  | 180.0+x             | (14)      | 180                | 100                | x+0.0    | (13)      |                    |
| 9700.8              | (25 <sup>-</sup> ) | 1079               | 100                | 8621.8  | 23 <sup>(-)</sup>  | 425.0+x             | (15)      | 245                | 100                | 180.0+x  | (14)      |                    |
| 10308.2             | (26 <sup>+</sup> ) | 1106               | 100                | 9202.2  | (24 <sup>+</sup> ) | 693.0+x             | (16)      | 268                | 100 33             | 425.0+x  | (15)      | D                  |
| 10872.8             | (27 <sup>-</sup> ) | 1172               | 100                | 9700.8  | (25 <sup>-</sup> ) |                     |           | 513                | 50 17              | 180.0+x  | (14)      |                    |
| 11475.2             | (28 <sup>+</sup> ) | 1167               | 100                | 10308.2 | (26 <sup>+</sup> ) | 1012.0+x            | (17)      | 319                | 100 23             | 693.0+x  | (16)      | D                  |
| 12132.8             | (29 <sup>-</sup> ) | 1260               | 100                | 10872.8 | (27 <sup>-</sup> ) |                     |           | 587                | 38 23              | 425.0+x  | (15)      |                    |
| 12718               | (30 <sup>+</sup> ) | 1243               | 100                | 11475.2 | (28 <sup>+</sup> ) | 1377.0+x            | (18)      | 365                | 100 50             | 1012.0+x | (17)      |                    |
| 13469.8             | (31 <sup>-</sup> ) | 1337               | 100                | 12132.8 | (29 <sup>-</sup> ) |                     |           | 684                | 50 13              | 693.0+x  | (16)      |                    |
| 14041               | (32 <sup>+</sup> ) | 1323               | 100                | 12718   | (30 <sup>+</sup> ) | 1773.0+x            | (19)      | 396                | 100 40             | 1377.0+x | (18)      |                    |
| 14878.8             | (33 <sup>-</sup> ) | 1409               | 100                | 13469.8 | (31 <sup>-</sup> ) |                     |           | 761                | 80 40              | 1012.0+x | (17)      |                    |
| 15434               | (34 <sup>+</sup> ) | 1393               | 100                | 14041   | (32 <sup>+</sup> ) | 2206.0+x            | (20)      | 433                | 100 50             | 1773.0+x | (19)      |                    |
| 16895               | (36 <sup>+</sup> ) | 1461               | 100                | 15434   | (34 <sup>+</sup> ) |                     |           | 829                | 50 25              | 1377.0+x | (18)      |                    |

<sup>†</sup> From av of <sup>126</sup>La  $\varepsilon$  decay and (HI,xn $\gamma$ ) when both data are available.

<sup>‡</sup> From  $\gamma(\theta)$  and linear polarisation in (HI,xn $\gamma$ ) and  $\gamma\gamma(\theta)$  and  $\alpha(\text{K})\text{exp}$  in <sup>126</sup>La  $\varepsilon$  decay.

# Uncertainty of intensity was not given in (HI,xn $\gamma$ ).

@ Intensity was not given in (HI,xn $\gamma$ ).

& Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on  $\gamma$ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

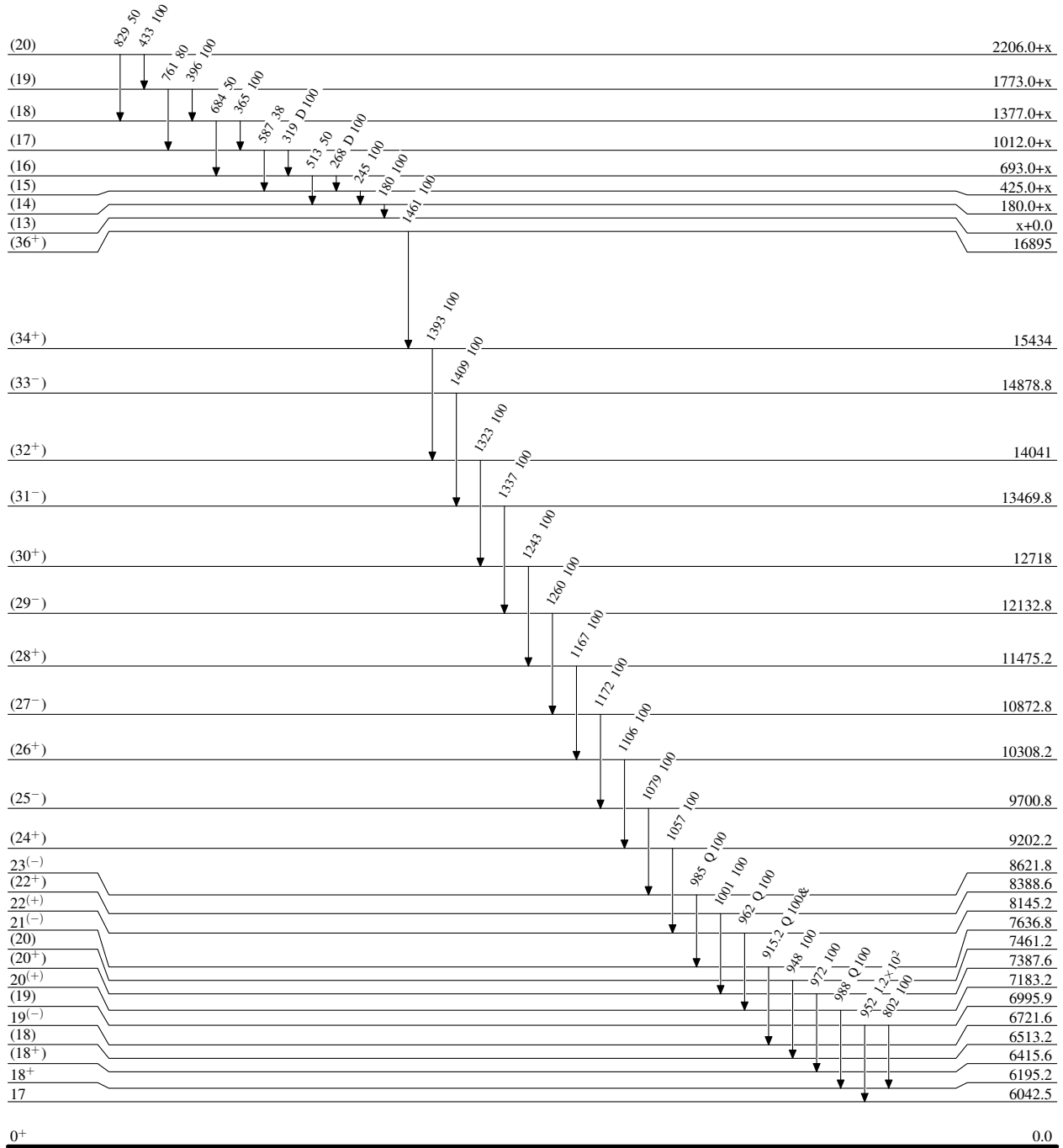
<sup>a</sup> Multiply placed with undivided intensity.

<sup>b</sup> Multiply placed with intensity suitably divided.

# Adopted Levels, Gammas

## Level Scheme

Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given



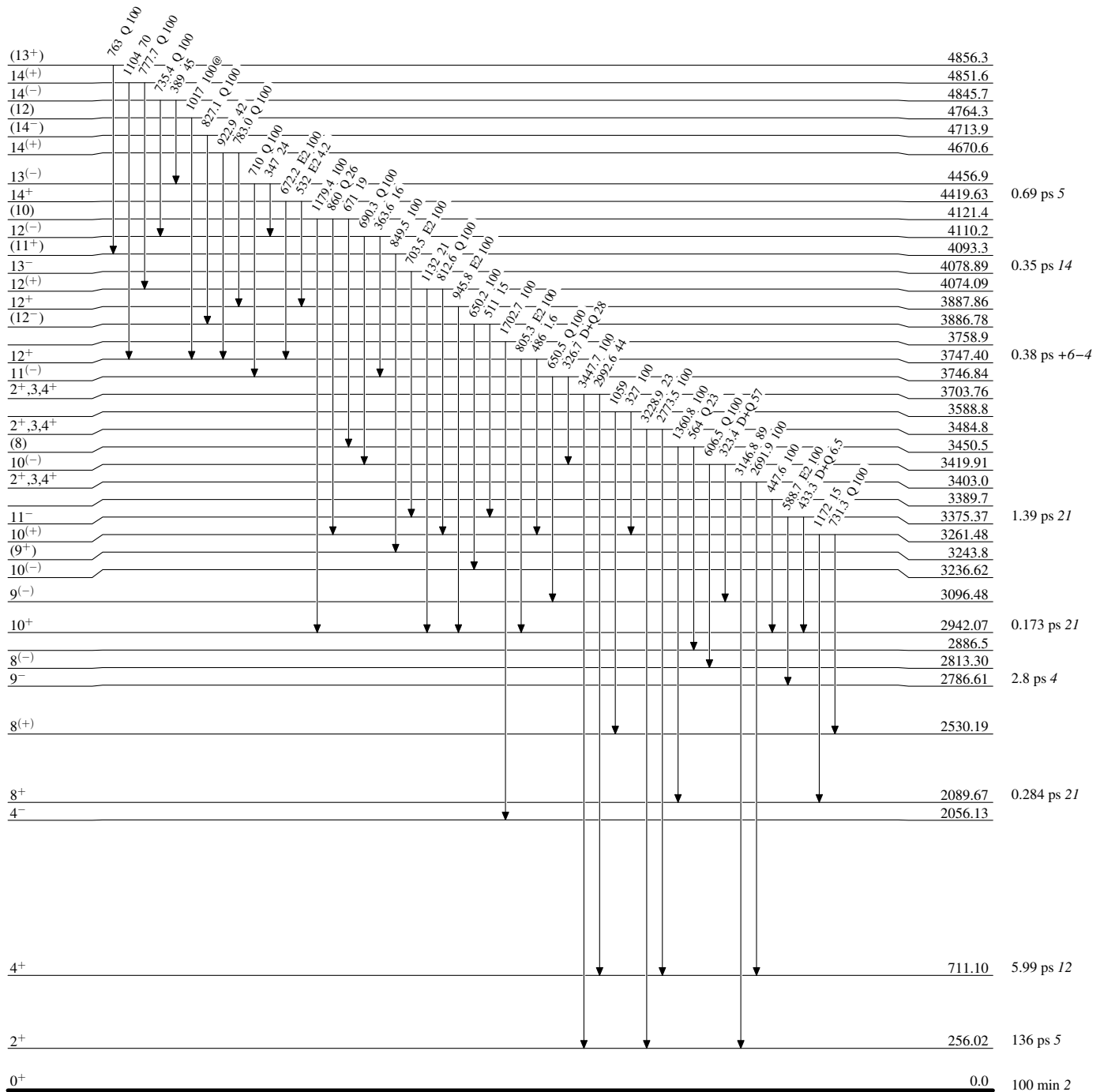
&lt;0.5 ps

100 min 2



**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

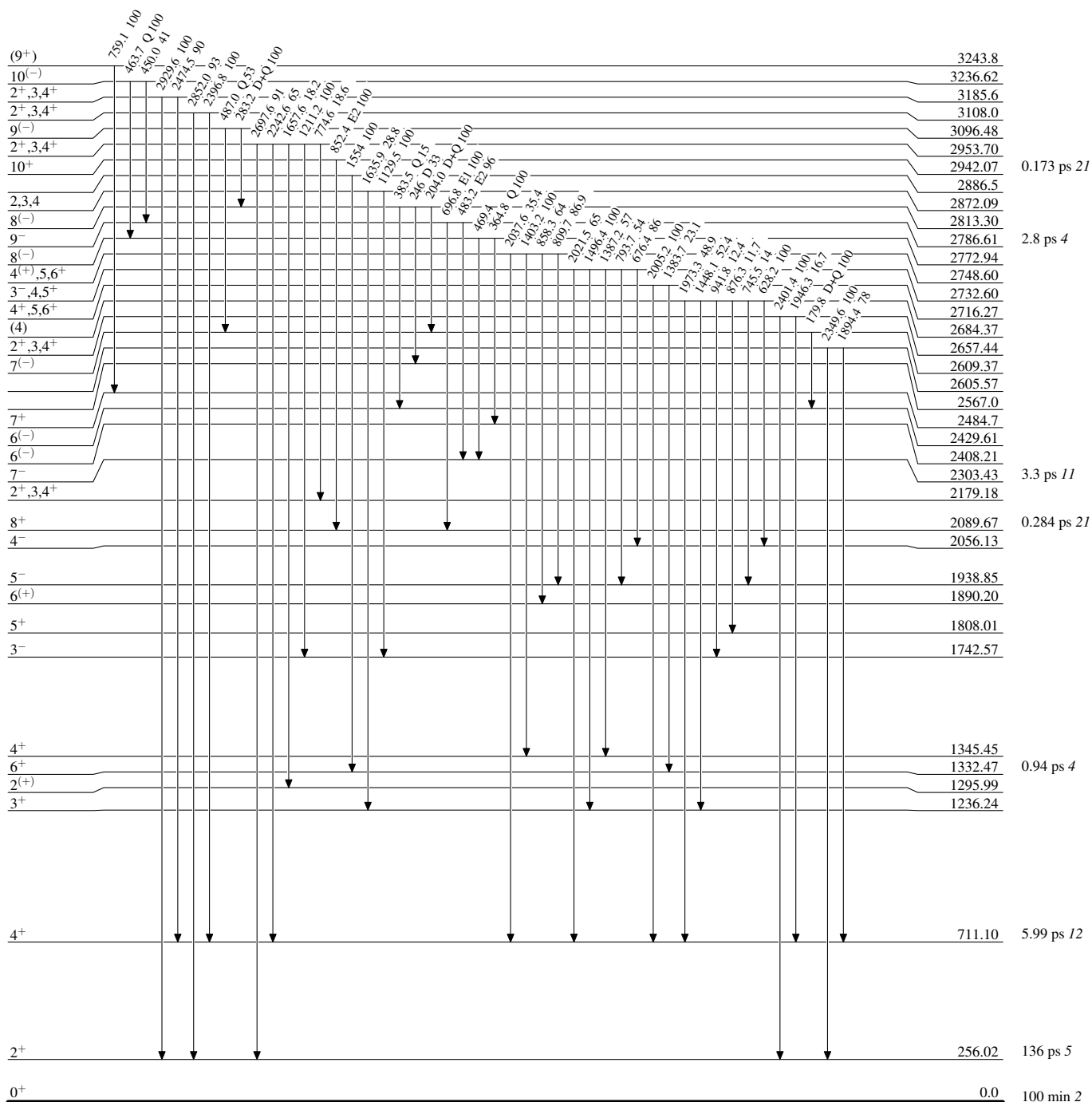


**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level

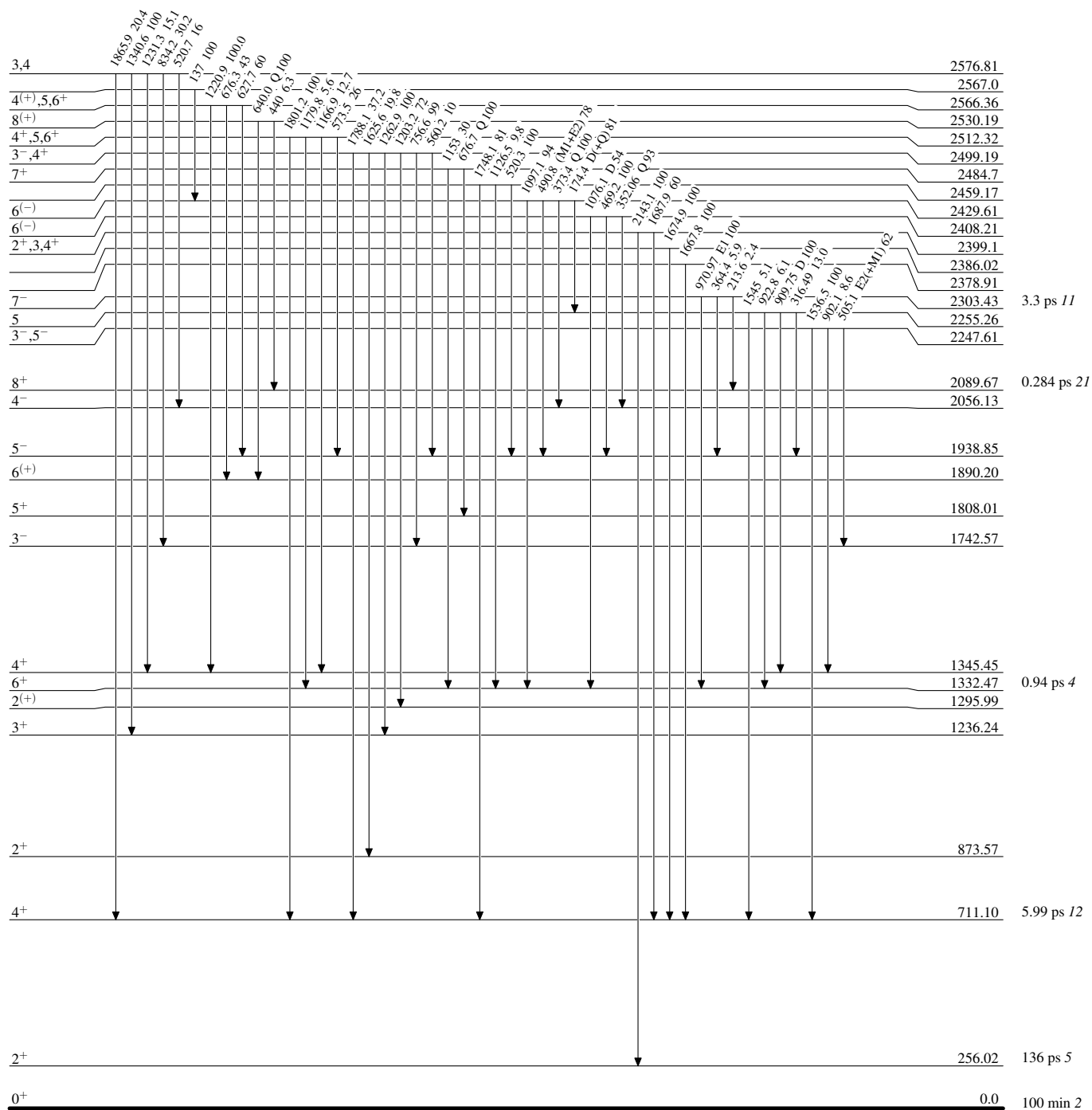
&amp; Multiply placed: undivided intensity given

@ Multiply placed: intensity suitably divided



**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

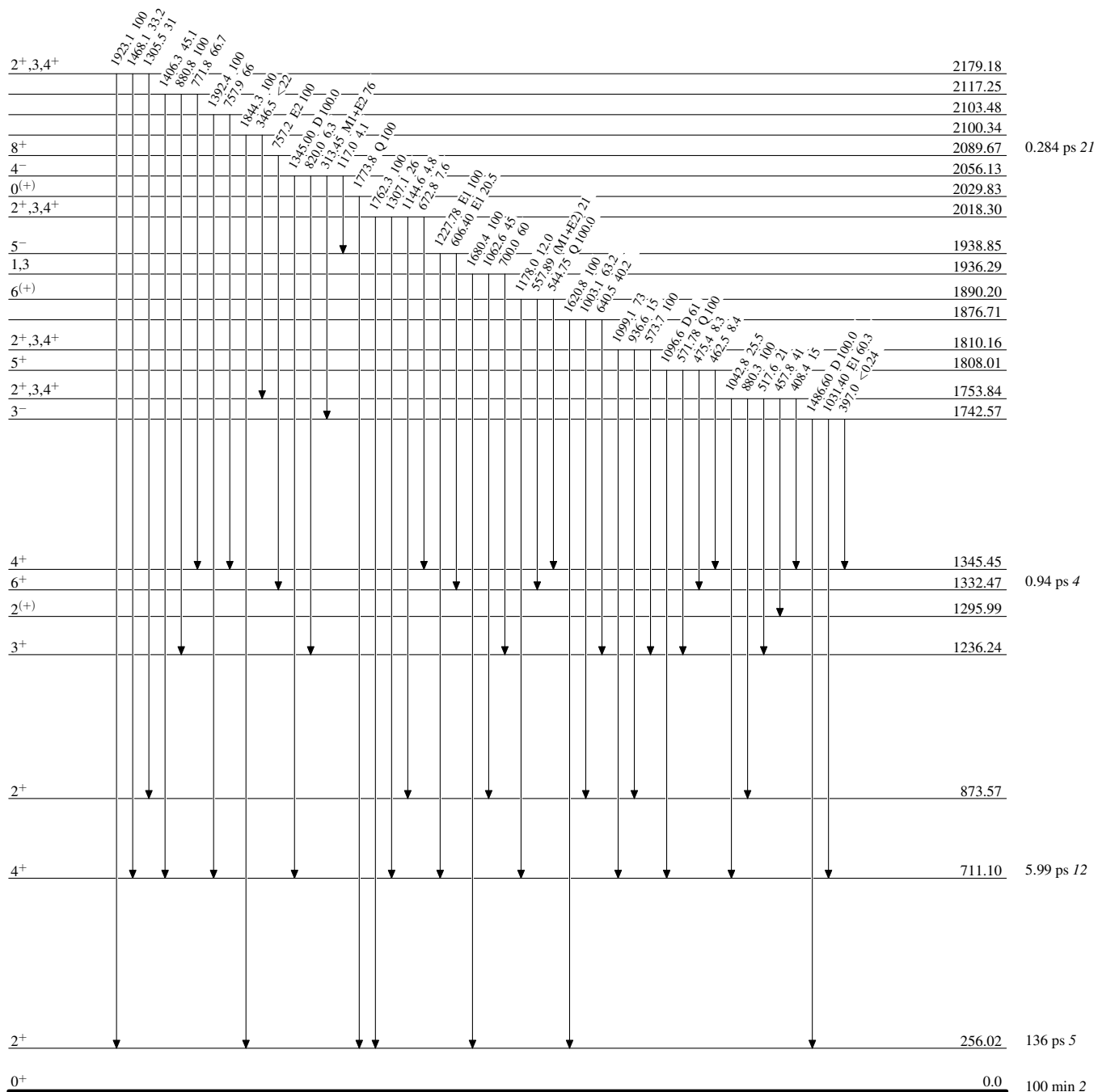


**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level

&amp; Multiply placed: undivided intensity given

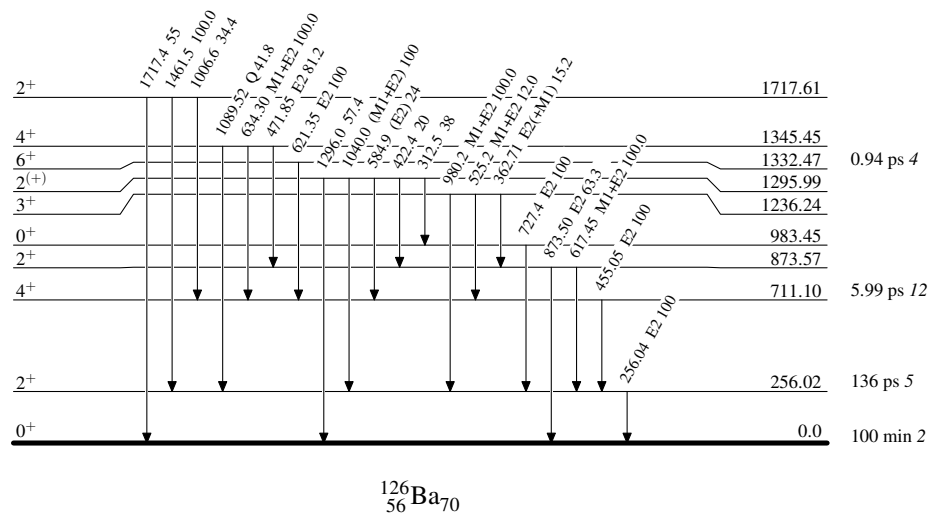
@ Multiply placed: intensity suitably divided



# Adopted Levels, Gammas

## Level Scheme (continued)

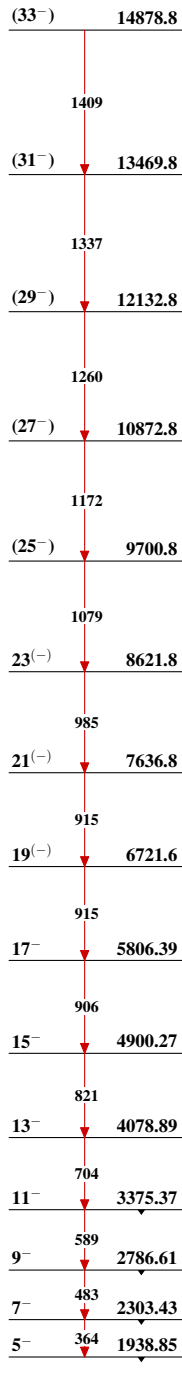
Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given  
@ Multiply placed: intensity suitably divided



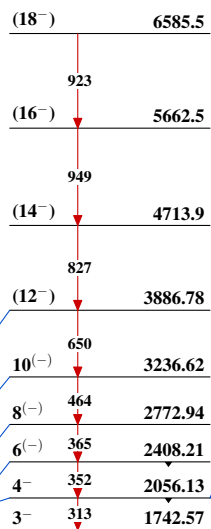


Adopted Levels, Gammas (continued)

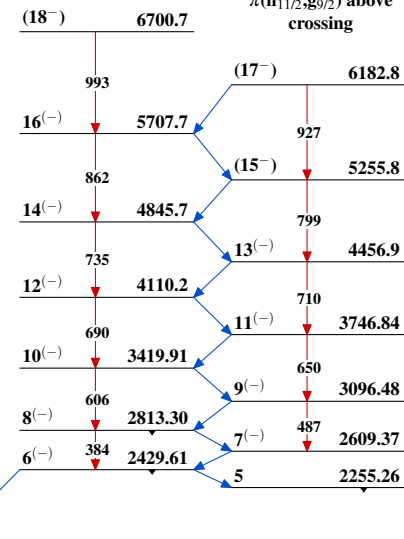
**Band(G): Band 7,  $\pi(h_{11/2}, g_{7/2})$  below crossing,  
 $\pi(h_{11/2}, g_{7/2})v(h_{11/2})^2$  above crossing**



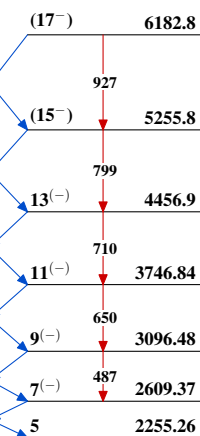
**Band(H): Band 8,  $\pi(h_{11/2}, g_{7/2})$  below crossing,  
 $\pi(h_{11/2}, g_{7/2})v(h_{11/2})^2$  above crossing**



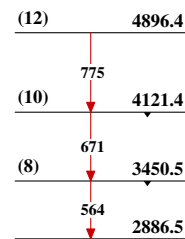
**Band(I): Band 9,  $v(h_{11/2}, g_{7/2})$  below crossing,  
 $\pi(h_{11/2}, g_{9/2})$  above crossing**



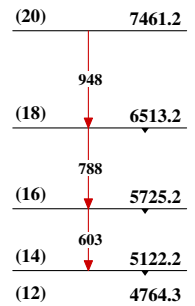
**Band(J): Band 10,  $v(h_{11/2}, g_{7/2})$  below crossing,  
 $\pi(h_{11/2}, g_{9/2})$  above crossing**



**Band(K): Band 11, based on the 2887-keV level**



**Band(L): Band 12,  $v(h_{11/2})^2 \pi(h_{11/2}, g_{7/2})$  below crossing**



# Adopted Levels, Gammas (continued)

