

$^{248}\text{Cm}$  SF decay [2007Ku23](#)

| Type            | Author       | History<br>Citation  | Literature Cutoff Date |
|-----------------|--------------|----------------------|------------------------|
| Full Evaluation | Jean Blachot | NDS 111, 1471 (2010) | 1-May-2009             |

Parent:  $^{248}\text{Cm}$ :  $E=0$ ;  $J^\pi=0^+$ ;  $T_{1/2}=348\times 10^3$  y 6; %SF decay=?

$^{248}\text{Cm}$ - $T_{1/2}$ : From [2003Au03](#).

Measured  $E\gamma$ ,  $\gamma\gamma$  coin using EUROGAM2 array and IGISOL mass spectrometer.

 $^{113}\text{Ru}$  Levels

| E(level) <sup>†</sup> | $J^\pi$                | $T_{1/2}$ | Comments                                                                                                                                                                       |
|-----------------------|------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0+x <sup>#</sup>      | (7/2 <sup>-</sup> )    | 0.51 s    | % $\beta^- \approx 100$ ; %IT=?<br>E(level): $x \approx 120$ ( <a href="#">2007Ku23</a> ), the energy is above the 98.5 level and below the 164.3 level in $^{103}\text{Ru}$ . |
| 113.0+x <sup>‡</sup>  | 3 (9/2 <sup>-</sup> )  |           |                                                                                                                                                                                |
| 259.7+x <sup>#</sup>  | 3 (11/2 <sup>-</sup> ) |           |                                                                                                                                                                                |
| 521.2+x <sup>‡</sup>  | 3 (13/2 <sup>-</sup> ) |           |                                                                                                                                                                                |
| 675.5+x <sup>#</sup>  | 4 (15/2 <sup>-</sup> ) |           |                                                                                                                                                                                |
| 1080.7+x <sup>‡</sup> | 5 (17/2 <sup>-</sup> ) |           |                                                                                                                                                                                |
| 1237.6+x <sup>#</sup> | 5 (19/2 <sup>-</sup> ) |           |                                                                                                                                                                                |
| 1934.3+x <sup>‡</sup> | 6 (23/2 <sup>-</sup> ) |           |                                                                                                                                                                                |

<sup>†</sup> From least-squares fit to  $E\gamma$ 's, assuming an uncertainty of 0.3 keV.

<sup>‡</sup> Band(A): 7/2[523],  $\alpha=+1/2$ .

<sup>#</sup> Band(a): 7/2[523],  $\alpha=-1/2$ .

 $\gamma(^{113}\text{Ru})$ 

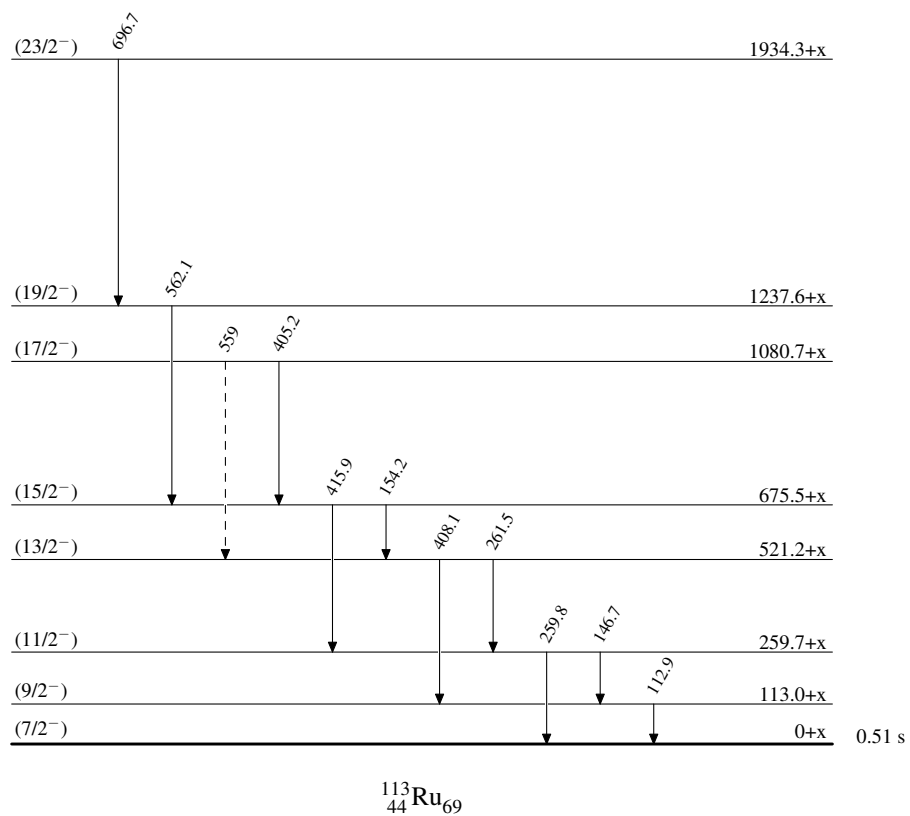
| $E_\gamma$ | $E_i(\text{level})$ | $J_i^\pi$            | $E_f$   | $J_f^\pi$            | $E_\gamma$       | $E_i(\text{level})$ | $J_i^\pi$            | $E_f$    | $J_f^\pi$            |
|------------|---------------------|----------------------|---------|----------------------|------------------|---------------------|----------------------|----------|----------------------|
| 112.9      | 113.0+x             | (9/2 <sup>-</sup> )  | 0+x     | (7/2 <sup>-</sup> )  | 408.1            | 521.2+x             | (13/2 <sup>-</sup> ) | 113.0+x  | (9/2 <sup>-</sup> )  |
| 146.7      | 259.7+x             | (11/2 <sup>-</sup> ) | 113.0+x | (9/2 <sup>-</sup> )  | 415.9            | 675.5+x             | (15/2 <sup>-</sup> ) | 259.7+x  | (11/2 <sup>-</sup> ) |
| 154.2      | 675.5+x             | (15/2 <sup>-</sup> ) | 521.2+x | (13/2 <sup>-</sup> ) | 559 <sup>†</sup> | 1080.7+x            | (17/2 <sup>-</sup> ) | 521.2+x  | (13/2 <sup>-</sup> ) |
| 259.8      | 259.7+x             | (11/2 <sup>-</sup> ) | 0+x     | (7/2 <sup>-</sup> )  | 562.1            | 1237.6+x            | (19/2 <sup>-</sup> ) | 675.5+x  | (15/2 <sup>-</sup> ) |
| 261.5      | 521.2+x             | (13/2 <sup>-</sup> ) | 259.7+x | (11/2 <sup>-</sup> ) | 696.7            | 1934.3+x            | (23/2 <sup>-</sup> ) | 1237.6+x | (19/2 <sup>-</sup> ) |
| 405.2      | 1080.7+x            | (17/2 <sup>-</sup> ) | 675.5+x | (15/2 <sup>-</sup> ) |                  |                     |                      |          |                      |

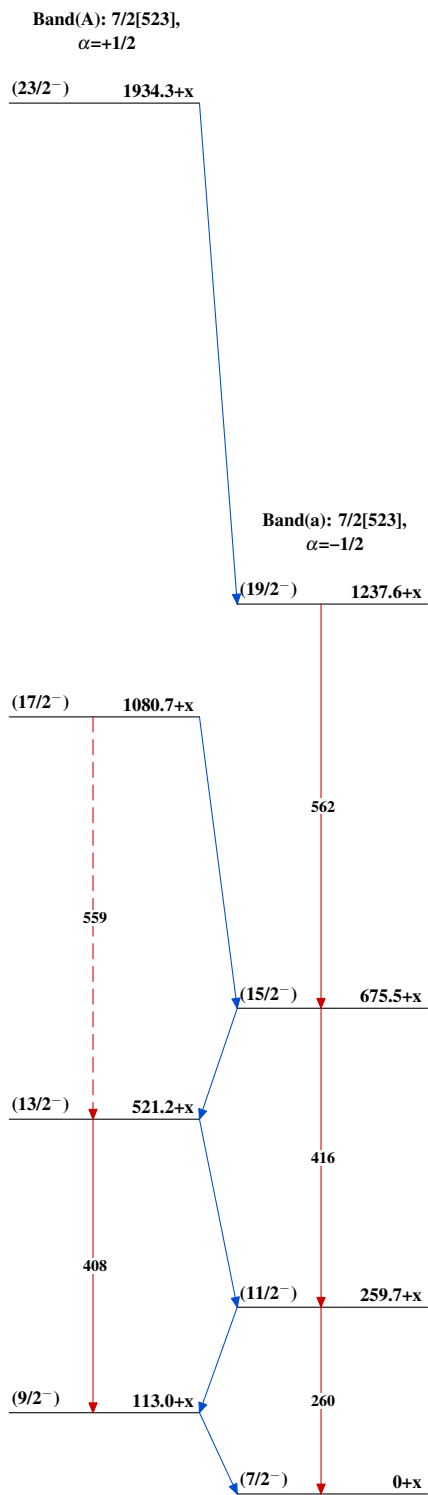
<sup>†</sup> Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

 - - - - - ➤  $\gamma$  Decay (Uncertain)


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 $^{113}_{44}\text{Ru}_{69}$