

$^{238}\text{U}(\alpha, \text{F}\gamma)$     **2004Hu02**

| <u>Type</u>     | <u>Author</u> | <u>History<br/>Citation</u> | <u>Literature Cutoff Date</u> |
|-----------------|---------------|-----------------------------|-------------------------------|
| Full Evaluation | Jean Blachot  | NDS 108,2035 (2007)         | 30-Mar-2007                   |

**2004HU02:** E=30 MeV. Measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$  with Rochester segmented heavy-ion detector array CHICO, in coincidence with the  $4\pi$ , highly segmented Gammasphere detector array.

 $^{104}\text{Zr}$  Levels

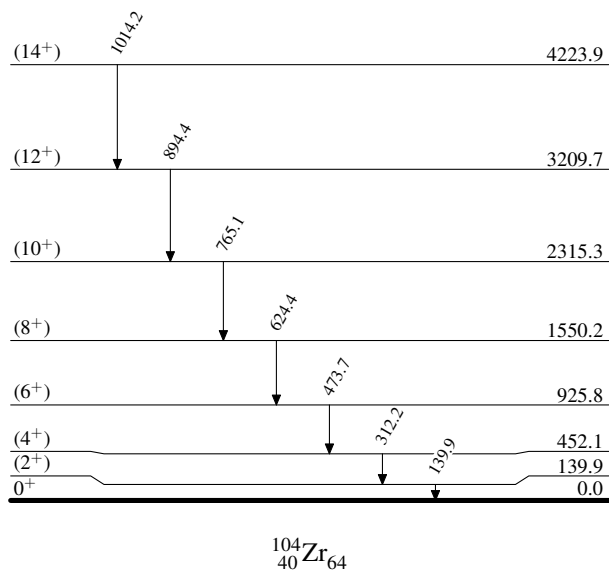
| <u>E(level)<sup>†</sup></u> | <u>J<sup>π</sup></u> |
|-----------------------------|----------------------|
| 0.0 <sup>‡</sup>            | 0 <sup>+</sup>       |
| 139.9 <sup>‡</sup> 3        | (2 <sup>+</sup> )    |
| 452.1 <sup>‡</sup> 4        | (4 <sup>+</sup> )    |
| 925.8 <sup>‡</sup> 5        | (6 <sup>+</sup> )    |
| 1550.2 <sup>‡</sup> 6       | (8 <sup>+</sup> )    |
| 2315.3 <sup>‡</sup> 6       | (10 <sup>+</sup> )   |
| 3209.7 <sup>‡</sup> 7       | (12 <sup>+</sup> )   |
| 4223.9 <sup>‡</sup> 8       | (14 <sup>+</sup> )   |

<sup>†</sup> From  $E\gamma$ 's, assuming 0.3 keV uncertainty for each  $\gamma$  ray.

<sup>‡</sup> Band(A): g.s. band.

 $\gamma(^{104}\text{Zr})$ 

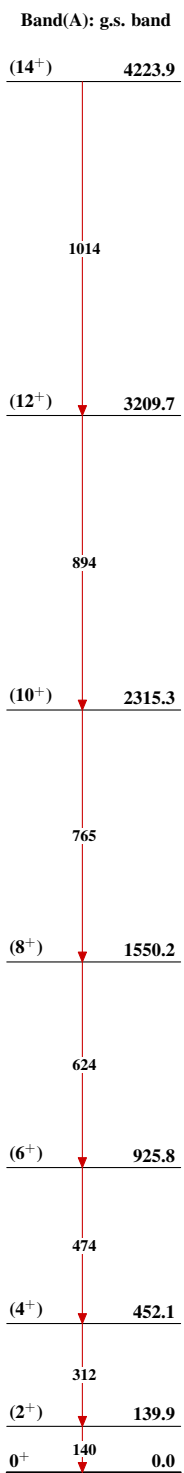
| <u>E<sub>γ</sub></u> | <u>E<sub>i</sub>(level)</u> | <u>J<sub>i</sub><sup>π</sup></u> | <u>E<sub>f</sub></u> | <u>J<sub>f</sub><sup>π</sup></u> |
|----------------------|-----------------------------|----------------------------------|----------------------|----------------------------------|
| 139.9 3              | 139.9                       | (2 <sup>+</sup> )                | 0.0                  | 0 <sup>+</sup>                   |
| 312.2 3              | 452.1                       | (4 <sup>+</sup> )                | 139.9                | (2 <sup>+</sup> )                |
| 473.7 3              | 925.8                       | (6 <sup>+</sup> )                | 452.1                | (4 <sup>+</sup> )                |
| 624.4 3              | 1550.2                      | (8 <sup>+</sup> )                | 925.8                | (6 <sup>+</sup> )                |
| 765.1 3              | 2315.3                      | (10 <sup>+</sup> )               | 1550.2               | (8 <sup>+</sup> )                |
| 894.4 3              | 3209.7                      | (12 <sup>+</sup> )               | 2315.3               | (10 <sup>+</sup> )               |
| 1014.2 3             | 4223.9                      | (14 <sup>+</sup> )               | 3209.7               | (12 <sup>+</sup> )               |

$^{238}\text{U}(\alpha, \text{F}\gamma)$  2004Hu02Level Scheme

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 $^{238}\text{U}(\alpha, \text{F}\gamma)$  2004Hu02

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 $^{104}_{40}\text{Zr}_{64}$