

$^9\text{Be}(^{238}\text{U},\text{X}\gamma)$  2012Go19,1998Pf02

| Type            | Author                         | History | Citation            | Literature Cutoff Date |
|-----------------|--------------------------------|---------|---------------------|------------------------|
| Full Evaluation | K. Auranen and E. A. Mccutchan |         | NDS 168, 117 (2020) | 1-Aug-2020             |

**2012Go19:**  $E(^{238}\text{U})=1$  GeV/nucleon. Fragments were separated and identified using the double-state magnetic spectrometer fragment separator (FRS) then implanted in a 3 layers of double-sided silicon strip detectors (DSSSD). Measured  $E_\gamma$ , recoil- $\gamma(t)$  using the RISING spectrometer consisting of 105 HPGe detectors.

**1998Pf02:**  $E(^{238}\text{U})=1$  GeV/nucleon. Fragments were separated and identified using the double-state magnetic spectrometer fragment separator (FRS) then implanted in a 3 layers of double-sided silicon strip detectors (DSSSD). Measured  $E_\gamma$ , recoil- $\gamma(t)$  using the RISING spectrometer consisting of 105 HPGe detectors. Identified levels with  $T_{1/2}=5 \mu\text{s}$   $I$  which deexcited through 159- and 315-keV  $\gamma$  rays, however, no level scheme was proposed. Results also presented in [1998PfZZ](#).

 $^{212}\text{Pb}$  Levels

| E(level) <sup>†</sup> | $J^\pi$ <sup>‡</sup> | $T_{1/2}$           | Comments  |
|-----------------------|----------------------|---------------------|---|
| 0.0 <sup>#</sup>      | 0 <sup>+</sup>       |                     |   |
| 805 <sup>#</sup>      | (2 <sup>+</sup> )    |                     |   |
| 1121 <sup>#</sup>     | (4 <sup>+</sup> )    |                     |   |
| 1279 <sup>#</sup>     | (6 <sup>+</sup> )    |                     |   |
| 1335 <sup>#</sup> $I$ | (8 <sup>+</sup> )    | 6.0 $\mu\text{s}$ 8 | %IT=100<br>E(level): from the Adopted Levels; value is based on (t,p) data.<br>$T_{1/2}$ : from recoil- $\gamma(t)$ ( <a href="#">2012Go19</a> ). Other: 5 $\mu\text{s}$ $I$ from 154 $\gamma(t)$ and 315 $\gamma(t)$ ( <a href="#">1998Pf02</a> ). |

<sup>†</sup> From  $E_\gamma$ , except where noted.

<sup>‡</sup> [2012Go19](#) interpret observed isomer to have  $J^\pi=8^+$  (assuming maximally aligned  $(g_{9/2})^2$  configuration). The observed  $\gamma$  rays are then attributed to the 6<sup>+</sup> to 4<sup>+</sup> to 2<sup>+</sup> to 0<sup>+</sup> yrast cascade.

<sup>#</sup> Seq.(A): Yrast sequence.

 $\gamma(^{212}\text{Pb})$ 

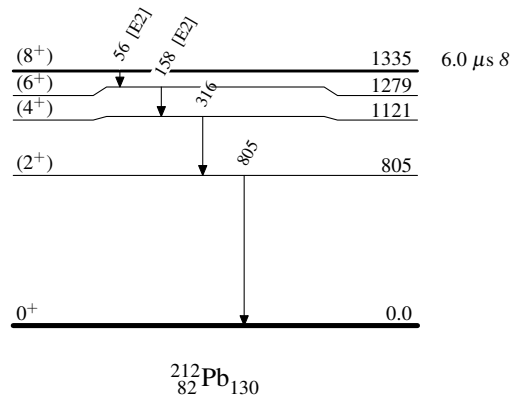
| $E_\gamma$ | $E_i(\text{level})$ | $J_i^\pi$         | $E_f$ | $J_f^\pi$         | Mult. | Comments   |
|------------|---------------------|-------------------|-------|-------------------|-------|--|
| (56 $I$ )  | 1335                | (8 <sup>+</sup> ) | 1279  | (6 <sup>+</sup> ) | [E2]  | $E_\gamma$ : transition to (6 <sup>+</sup> ) level not seen in $\gamma$ -ray spectra, energy is from difference of 1335 and 1279 levels. |
| 158        | 1279                | (6 <sup>+</sup> ) | 1121  | (4 <sup>+</sup> ) | [E2]  |  |
| 316        | 1121                | (4 <sup>+</sup> ) | 805   | (2 <sup>+</sup> ) |       |  |
| 805        | 805                 | (2 <sup>+</sup> ) | 0.0   | 0 <sup>+</sup>    |       |  |

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Legend

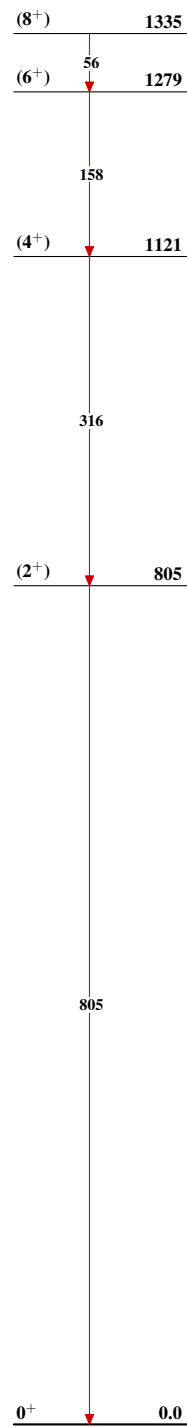
Level Scheme

-----►  $\gamma$  Decay (Uncertain)



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Seq.(A): Yrast sequence

 $^{212}_{82}\text{Pb}_{130}$