

$^9\text{Be}(^{76}\text{Ge}, \text{X}\gamma)$  2002Ge16

| Type            | Author         | History<br>Citation | Literature Cutoff Date |
|-----------------|----------------|---------------------|------------------------|
| Full Evaluation | C. D. Nesaraja | NDS 207,1 (2026)    | 1-Apr-2023             |

2002Ge16,2004Ge11,2002Ne07:  $^{69}\text{Cu}$  produced by fragmentation of  $^{76}\text{Ge}$ , 61.4 MeV/nucleon beam on Be target and selected with LISE spectrometer at GANIL.  $\Delta E$  versus TOF technique was used for isotope identification. g factor was measured from Time Dependent Perturbed Angular Distribution (TDPAD) in combination with correlation technique. Two Ge Clover detectors and three BaF<sub>2</sub> heavy ion gamma fast scintillators were used to measure  $E_\gamma$  and  $\gamma(t)$ . 2002Ge16 deduced  $T_{1/2}$  of isomer.

 $^{69}\text{Cu}$  Levels

| E(level) <sup>†</sup> | J <sup>π</sup> <sup>†</sup> | T <sub>1/2</sub> | Comments                                                                                                                                                                                                                                                                     |
|-----------------------|-----------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0                     | 3/2 <sup>-</sup>            |                  |                                                                                                                                                                                                                                                                              |
| 1213                  | (5/2) <sup>-</sup>          |                  |                                                                                                                                                                                                                                                                              |
| 1711                  | 7/2 <sup>-</sup>            |                  |                                                                                                                                                                                                                                                                              |
| 1871                  | 7/2 <sup>-</sup>            |                  |                                                                                                                                                                                                                                                                              |
| 2181                  | 9/2 <sup>-</sup>            |                  |                                                                                                                                                                                                                                                                              |
| 2551                  | 9/2 <sup>+</sup>            |                  |                                                                                                                                                                                                                                                                              |
| 2667                  | 11/2 <sup>-</sup>           |                  |                                                                                                                                                                                                                                                                              |
| 2741                  | 13/2 <sup>+</sup>           | 357 ns 2         | g=0.225 25 (2002Ge16)<br>T <sub>1/2</sub> : From 2002Ge16.<br>Configuration= $\pi(p_{3/2})\nu^2(g_{9/2}^{+1}p_{1/2}^{-1})_{13/2^{+}}$ .<br>g: Measured using the Time Dependant Perturbed Distribution in combination with heavy ion gamma correlation technique (2002Ge16). |

<sup>†</sup> From Fig.4 in 2002Ge16.

 $\gamma(^{69}\text{Cu})$ 

| $E_\gamma$ <sup>†</sup> | $E_i(\text{level})$ | $J_i^\pi$         | $E_f$ | $J_f^\pi$          | $E_\gamma$ <sup>†</sup> | $E_i(\text{level})$ | $J_i^\pi$          | $E_f$ | $J_f^\pi$        |
|-------------------------|---------------------|-------------------|-------|--------------------|-------------------------|---------------------|--------------------|-------|------------------|
| 74                      | 2741                | 13/2 <sup>+</sup> | 2667  | 11/2 <sup>-</sup>  | 956                     | 2667                | 11/2 <sup>-</sup>  | 1711  | 7/2 <sup>-</sup> |
| 190                     | 2741                | 13/2 <sup>+</sup> | 2551  | 9/2 <sup>+</sup>   | 1213                    | 1213                | (5/2) <sup>-</sup> | 0     | 3/2 <sup>-</sup> |
| 470                     | 2181                | 9/2 <sup>-</sup>  | 1711  | 7/2 <sup>-</sup>   | 1711                    | 1711                | 7/2 <sup>-</sup>   | 0     | 3/2 <sup>-</sup> |
| 486                     | 2667                | 11/2 <sup>-</sup> | 2181  | 9/2 <sup>-</sup>   | 1871                    | 1871                | 7/2 <sup>-</sup>   | 0     | 3/2 <sup>-</sup> |
| 658                     | 1871                | 7/2 <sup>-</sup>  | 1213  | (5/2) <sup>-</sup> | 2551                    | 2551                | 9/2 <sup>+</sup>   | 0     | 3/2 <sup>-</sup> |
| 680                     | 2551                | 9/2 <sup>+</sup>  | 1871  | 7/2 <sup>-</sup>   |                         |                     |                    |       |                  |

<sup>†</sup> From Fig.4 in 2002Ge16.

$^9\text{Be}(^{76}\text{Ge}, \text{X}\gamma)$  2002Ge16

## Level Scheme

