

${}^{238}\text{U}({}^{76}\text{Ge},\text{X}\gamma)$  2013Lo04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal, E. A. McCutchan		NDS 136, 1 (2016)	1-Jul-2016

$E({}^{76}\text{Ge})=577$  MeV. Measured  $E_\gamma$ ,  $I_\gamma$ , particle- $\gamma$  coincidences using the AGATA Demonstrator consisting of four triple cluster HPGe modules. Projectile-like reaction products separated by the magnetic spectrometer PRISMA and detected at the focal plane with ten parallel plate avalanche counters and an ionization chamber; deduced  $T_{1/2}$  using the Cologne plunger and the Recoil Distance Doppler Shift (RDDS) method.

 ${}^{70}\text{Zn}$  Levels

<u>E(level)<sup>†</sup></u>	<u><math>J^\pi</math><sup>‡</sup></u>	<u><math>T_{1/2}</math><sup>#</sup></u>
0	0 <sup>+</sup>	
884 2	2 <sup>+</sup>	3.7 ps <i>I2</i>
1786 3	4 <sup>+</sup>	2.0 ps <i>+9-11</i>
2894 4	(6 <sup>+</sup> )	
3036 2	5 <sup>-</sup>	
3754 4	(8 <sup>+</sup> )	
4934 4	(10 <sup>+</sup> )	
6115 4	(12 <sup>+</sup> )	

<sup>†</sup> From  $E_\gamma$ .

<sup>‡</sup> From the Adopted Levels.

<sup>#</sup> From RDDS in 2013Lo04.

 $\gamma({}^{70}\text{Zn})$ 

<u><math>E_\gamma</math><sup>†</sup></u>	<u><math>E_i(\text{level})</math></u>	<u><math>J_i^\pi</math></u>	<u><math>E_f</math></u>	<u><math>J_f^\pi</math></u>
860 2	3754	(8 <sup>+</sup> )	2894	(6 <sup>+</sup> )
884 2	884	2 <sup>+</sup>	0	0 <sup>+</sup>
902 2	1786	4 <sup>+</sup>	884	2 <sup>+</sup>
1108 2	2894	(6 <sup>+</sup> )	1786	4 <sup>+</sup>
1180.3 <sup>‡</sup>	6115	(12 <sup>+</sup> )	4934	(10 <sup>+</sup> )
1180.5 <sup>‡</sup>	4934	(10 <sup>+</sup> )	3754	(8 <sup>+</sup> )
1250 <sup>#</sup> 2	3036	5 <sup>-</sup>	1786	4 <sup>+</sup>

<sup>†</sup> From 2013Lo04, except where noted.

<sup>‡</sup> From the Adopted Levels. 2013Lo04 give a partially Doppler shifted value of 1163 keV 2 in the spectra of their Figure 3, which corresponds to the closely spaced doublet of 1180.5 keV and 1180.3 keV.

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

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Legend

Level Scheme-----▶  $\gamma$  Decay (Uncertain)