

$^{238}\text{U}(^{76}\text{Ge},\text{X}\gamma)$ 2015Sa09

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

No changes from XUNDL compiled dataset by J. Chen (NSCL, MSU), March 4, 2015.

2015Sa09: Neutron-rich Cu isotopes were populated via multinucleon transfer reactions using a $E=577$ MeV ^{76}Ge beam from the Tandem-XTU and the ALPI superconducting LINAC accelerators at Laboratori Nazionali di Legnaro (LNL), bombarding a thin, metallic ^{238}U target of 1.5 mg/cm^2 thickness evaporated onto a ^{181}Ta backing of 1.4 mg/cm^2 thickness. Reaction products were separated according to the measured ΔE - E matrix by the PRISMA magnetic spectrometer. γ rays were detected by the AGATA Demonstrator array of four triple clusters, each consisting of three 36-fold segmented HPGe detector. Measured E_γ , I_γ , particle- $\gamma(t)$. Deduced lifetime of 1711 level using the differential recoil-distance Doppler-shift method (RDDS), transition probabilities. Compared with shell-model calculations.

 ^{69}Cu Levels

<u>$E(\text{level})$</u>	<u>J^π</u>	<u>$T_{1/2}$</u>
0	$3/2^-$	
1711	$7/2^-$	26 ps <i>11</i>

[†] From 2015Sa09 using the differential recoil distance Doppler-shift method (RDDS).

[‡] From 2015Sa09.

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

<u>E_γ</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.</u>
1711	1711	$7/2^-$	0	$3/2^-$	E2

[†] From Adopted Gammas.

 $^{238}\text{U}(^{76}\text{Ge},\text{X}\gamma)$ 2015Sa09Level Scheme