

$^{63}\text{Cu}(n,\gamma) E=2.642 \text{ keV}$ 1970St12

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 178, 41 (2021).	12-Nov-2021

1970St12: Natural target. Measured γ in coin with neutrons.

 ^{64}Cu Levels

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
0	1 ⁺	609	2 ⁺	1242		1594? [#]	(1 ⁺ ,2)
160?	2 ⁺	740 [#]	2 ⁺	1363	(1,2,3 ⁺)	1607? [#]	(2 ⁺ ,3)
345	1 ⁺	748 [#]	(3) ⁺	1498?	(2) ⁻	7918.469 [@] 24	2 ⁻ &
360	3 ⁺	895	(3) ⁺	1522	(2) ⁺		

[†] From primary transitions, uncertainty ≈ 1 keV.

[‡] From the Adopted Levels unless otherwise stated.

[#] Unresolved.

[@] S(n)+E(n), where E(n)(lab)=2.642 keV 4 (2018MuZY), S(n)=7916.868 24 (2021Wa16).

& From 2018MuZY evaluation.

 $\gamma(^{64}\text{Cu})$

E _{γ} [†]	I _{γ} [#]	E _i (level)	J _i ^π	E _f	J _f ^π	E _{γ} [†]	I _{γ} [#]	E _i (level)	J _i ^π	E _f	J _f ^π
6309 [‡]	6.9 [‡] 12	7918.469	2 ⁻	1607?	(2 ⁺ ,3)	7168 [‡]	3.4 [‡] 10	7918.469	2 ⁻	748	(3) ⁺
6322 [‡]	6.9 [‡] 12	7918.469	2 ⁻	1594?	(1 ⁺ ,2)	7176 [‡]	3.4 [‡] 10	7918.469	2 ⁻	740	2 ⁺
6394	1.9 7	7918.469	2 ⁻	1522	(2) ⁺	7307	1.9 9	7918.469	2 ⁻	609	2 ⁺
6418 [@]	<2.0	7918.469	2 ⁻	1498?	(2) ⁻	7556	5.2 9	7918.469	2 ⁻	360	3 ⁺
6553	1.6 14	7918.469	2 ⁻	1363	(1,2,3 ⁺)	7571	2.4 7	7918.469	2 ⁻	345	1 ⁺
6674 [@]	<5.2	7918.469	2 ⁻	1242		7756 [@]	<1.6	7918.469	2 ⁻	160?	2 ⁺
7021	1.5 9	7918.469	2 ⁻	895	(3) ⁺	7916	5.3 10	7918.469	2 ⁻	0	1 ⁺

[†] Based on E _{γ} of 1968Sh01.

[‡] For unresolved peak.

[#] Intensity per 100 neutron captures.

[@] Placement of transition in the level scheme is uncertain.

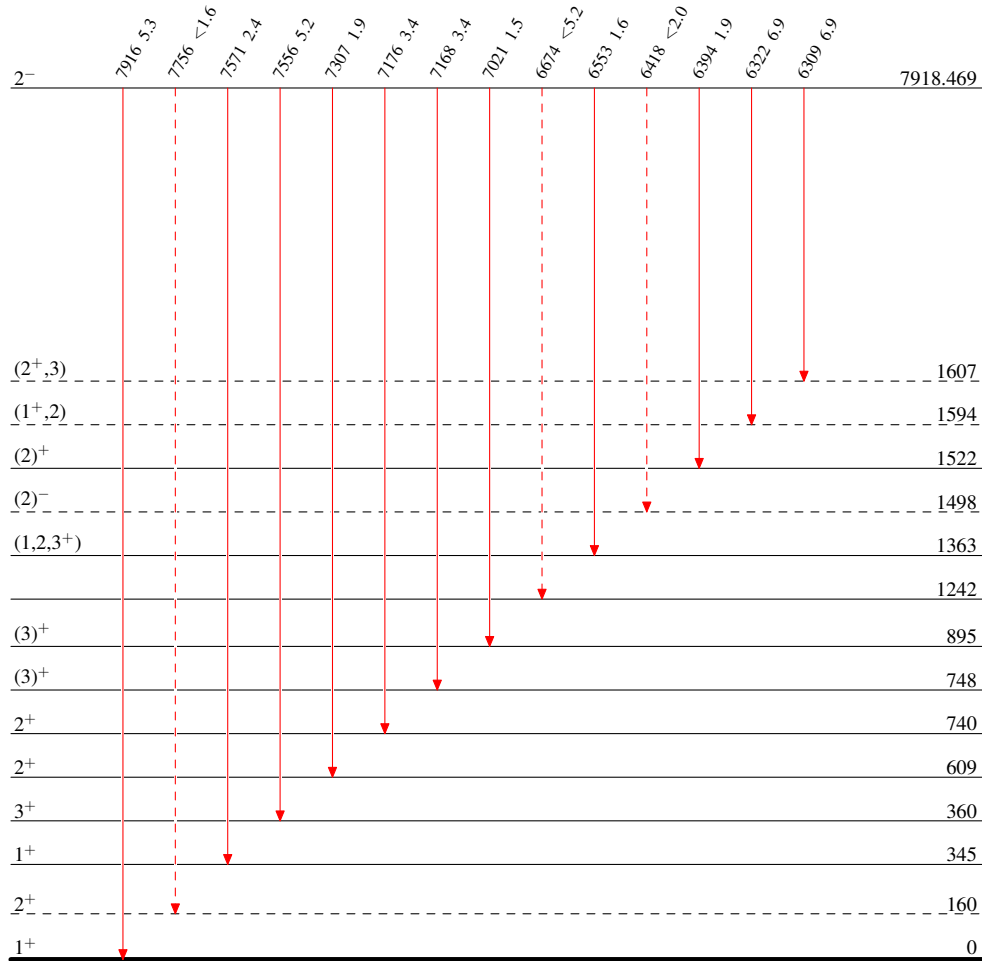
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Legend

Level Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 neutron captures

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- - - - - γ Decay (Uncertain)

 $^{64}_{29}\text{Cu}_{35}$