

${}^{66}\text{Zn}(\alpha, \alpha'\gamma), ({}^{32}\text{S}, {}^{32}\text{S}'\gamma)$ **1972Yo01**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 111, 1093 (2010)	3-Mar-2009

1972Yo01: ($\alpha, \alpha'\gamma$): $E\alpha=25$ MeV; $E\gamma$, α - γ coincidences, and $T_{1/2}$ by DSA.

1979BrZF: (${}^{32}\text{S}, {}^{32}\text{S}'\gamma$): $E=72$ MeV; $\gamma(\theta, \text{H}, \text{t})$, deduced g-factor.

All data are from **1972Yo01**, except as indicated.

 ${}^{66}\text{Zn}$ Levels

E(level) [†]	$J^{\pi\ddagger}$	$T_{1/2}$	Comments
0	0 ⁺		
1039.6 10	2 ⁺	1.5 ps 7	g=+0.40 7 (1979BrZF)
1873.7 13	2 ⁺	<1.4 ps	
2451.7 15	4 ⁺	<0.7 ps	
2828.0 13	3 ⁻	0.18 ps 4	
3080.4 18	4 ⁺	0.13 ps +56-10	
4394.6 20	3 ⁻	0.07 ps +4-2	

[†] From least-squares fit to $E\gamma$ data.

[‡] From Adopted Levels.

 $\gamma({}^{66}\text{Zn})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
628.7 10	3080.4	4 ⁺	2451.7	4 ⁺
834.4 10	1873.7	2 ⁺	1039.6	2 ⁺
954.9 12	2828.0	3 ⁻	1873.7	2 ⁺
1039.6 10	1039.6	2 ⁺	0	0 ⁺
1412.1 11	2451.7	4 ⁺	1039.6	2 ⁺
1565.2 [†] 20	4394.6	3 ⁻	2828.0	3 ⁻
1787.7 10	2828.0	3 ⁻	1039.6	2 ⁺
3357.0 [†] 25	4394.6	3 ⁻	1039.6	2 ⁺

[†] Branching ratio reported as $\approx 50\%$.

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Level Scheme

