^{66}Zn(pol n,γ) E=th 1971Kn06,1975DeYM,1970Ba21

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Huang Xiaolong, J. K. Tuli	NDS 106, 159 (2005)	1-Apr-2005

1975DeYM: E=thermal, polarized neutrons; measured circular polarization of primary γ rays.
1971Kn06: E=thermal, polarized neutrons; measured circular polarization of primary γ rays.
1970Ba21: E=thermal, measured Eγ, Iγ of primary γ rays.
Other: 1967Ba79.

^{67}Zn Levels

E(level)†	J$^\pi$‡	Comments
0	5/2$^-$	
93	1/2$^-$	J$^\pi$: 1/2$^-$ from circular polarization and L(d,p) (1975DeYM); J=1/2 from γ-ray circular polarization (1971Kn06).
186	3/2$^-$	J$^\pi$: 3/2$^-$ from circular polarization and L(d,p) (1975DeYM); J=1/2, (3/2) from γ-ray circular polarization (1971Kn06).
398	3/2$^-$	J$^\pi$: 3/2$^-$ from circular polarization and L(d,p) (1975DeYM); J=3/2 from γ-ray circular polarization (1971Kn06).
663?		
1142	1/2$^-$	J$^\pi$: 1/2$^-$ from circular polarization and L(d,p) (1975DeYM).
1643		J$^\pi$: (1/2$^-$,3/2,5/2$^+$) from circular polarization and L(d,p) (1975DeYM).
7052.6 *5*	1/2$^+$	E(level): weighted average of 7052.8 *6* (1975DeYM) and 7052.4 *7* (1971Ot01). J$^\pi$: for s-wave capture.

† From the neutron binding energy and the primary γ-ray energies.
‡ From Adopted Levels. Supporting arguments from this data set are given.

γ(^{67}Zn)

E$_\gamma$†	I$_\gamma$‡	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
5410		7052.6	1/2$^+$	1643		E$_\gamma$: from 1975DeYM.
5911	9.2	7052.6	1/2$^+$	1142	1/2$^-$	
6390#	≈1.5	7052.6	1/2$^+$	663?		
6655	13.1	7052.6	1/2$^+$	398	3/2$^-$	
6867	24.0	7052.6	1/2$^+$	186	3/2$^-$	
6960	36.3	7052.6	1/2$^+$	93	1/2$^-$	

† From 1970Ba21, unless indicated otherwise.
‡ Gammas per 100 neutron captures (1970Ba21).
# Placement of transition in the level scheme is uncertain.

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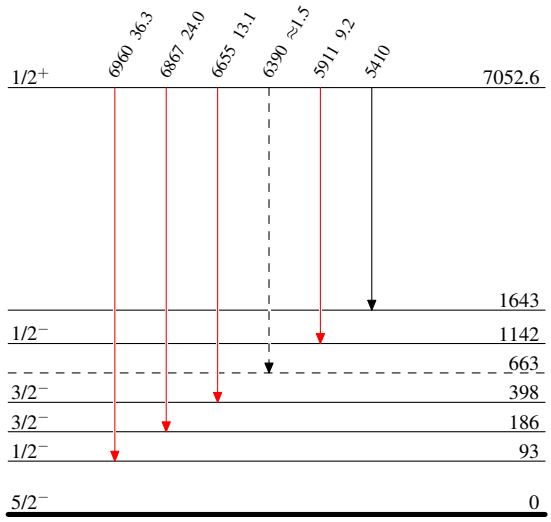
Level Scheme

Intensities: Relative I_γ

Legend

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



$^{67}_{30}Zn_{37}$