Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. R. Bhat	NDS 85, 415 (1998)	24-Sep-1998

Q(β^-)=−1.476×10^4 *SY*; S(n)=1.714×10^4 *SY*; S(p)=690.3 *4*; Q(α)=−7074.5 *18* 2012Wa38
Note: Current evaluation has used the following Q record.
ΔQ(β^-): = 140 keV from systematics.
ΔS(n): = 140 keV from systematics.
Q(β^-)=−14.62×10^3 *SY*; S(n)=16.78×10^3 *SY*; S(p)=695 *19*; Q(α)=−7091 *24* 1995Au04
1998Re01: calculated reaction rates for ^{57}Ni(p,γ) in stellar interiors from the spectroscopic factors of the low-lying states in ^{57}Ni using charge symmetry.

^{57}Cu Levels

J^π,T: see ^{57}Zn β^+ decay? and (^{7}Li,^{8}He) for other proposed assignments.

Cross Reference (XREF) Flags

A ^{58}Ni(^{7}Li,^{8}He), (^{14}N,^{15}C)
B ^{57}Zn β^+ decay:?
C ^{1}H(^{58}Ni,^{57}Cuγ)

E(level)†	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0	3/2$^-$	196.3 ms *7*	ABC	%ε+%β^+=100 T$_z$=−1/2 J,ISPINZ super-allowed decay to J^π=3/2$^-$, T$_z$=+1/2, g.s. of ^{57}Ni (1984Sh28). T$_{1/2}$: from 1996Se01. Others: 199.4 ms *32* (1987HaZN), 223 ms *16* (1984Sh28).
1028 *4*	5/2$^-$‡		A C	
1106 *4*	1/2$^-$‡		C	
2398 *10*	5/2$^-$‡		C	
2520 *25*			A	
3.28×10^3 *5*			B	%p=100
3510 *25*			A	
5.35×10^3 *5*			B	%p=100
5710 *25*			A	

† Levels below 2500 keV are from (^{58}Ni,^{57}Cuγ); the rest are from (^{7}Li,^{8}He) or ^{57}Zn β^+ decay.
‡ By comparison with J^π assignments in the mirror nuclide ^{57}Ni (1996Zh02).

γ(^{57}Cu)

E$_i$(level)	J$_i^\pi$	E$_\gamma$	I$_\gamma$	E$_f$	J$_f^\pi$
1028	5/2$^-$	1028 *4*	100	0.0	3/2$^-$
1106	1/2$^-$	1106 *4*	100	0.0	3/2$^-$
2398	5/2$^-$	2398 *10*	100	0.0	3/2$^-$

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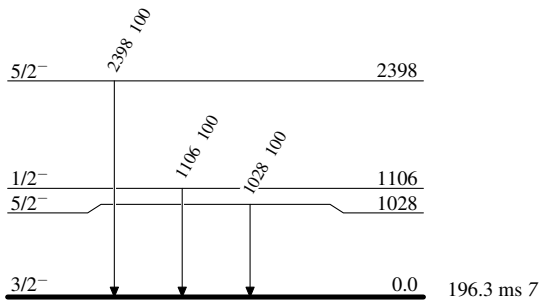
Level Scheme

Intensities: Relative photon branching from each level



$^{57}_{29}Cu_{28}$