^{67}Cu IT decay 2000As05

History

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

Parent: ^{67}Cu: E=3463.6; J^{π}=15/2^{+}; $T_{1/2}$<2.4 ns; %IT decay=100.0

^{198}Pt(^{76}Ge,X), E=635 MeV, measured isomers $T_{1/2}$, Eγ, Iγ, $\gamma\gamma$ and (projectile-like fragment)γ coincidences, angular correlations. Decay scheme established for isomeric state at 3464 keV.

^{67}Cu Levels

E(level)‡	J^{π}†	$T_{1/2}$	Comments
0	3/2^{-}	61.83 h *12*	$T_{1/2}$: From Adopted Levels.
1115.37 *24*	5/2^{-}		
1669.63 *23*	7/2^{-}		
2502.8 *3*	9/2^{+}	<0.3 ns	$T_{1/2}$: From 2000As05.
3363.7 *5*	13/2^{+}		
3463.6 *7*	15/2^{+}	<2.4 ns	$T_{1/2}$: 2.4 ns> $T_{1/2}$ > 0.6 ns.

† From Adopted Levels.
‡ From least-squares fit to Eγ data.

γ(^{67}Cu)

E_{γ}	I_{γ}†	E_i(level)	J^{π}_i	E_f	J^{π}_f	Mult.	α‡	Comments
99.9 *5*	71 *12*	3463.6	15/2^{+}	3363.7	13/2^{+}	M1	0.0551	α(K)=0.0484 *15*; α(L)=0.00505 *16*
554.2 *3*	25 *3*	1669.63	7/2^{-}	1115.37	5/2^{-}	M1	0.00080	α=0.00080; α(K)=0.00071 *2*
833.1 *3*	48 *4*	2502.8	9/2^{+}	1669.63	7/2^{-}	E1	0.00017	α=0.00017; α(K)=0.00015 *1*
860.9 *3*	100 *7*	3363.7	13/2^{+}	2502.8	9/2^{+}	E2	0.00040	α=0.00040; α(K)=0.00035 *1*
1115.4 *3*	29 *4*	1115.37	5/2^{-}	0	3/2^{-}	M1	0.00018	α=0.00018; α(K)=0.00016 *1*
1387.7 *5*	6 *2*	2502.8	9/2^{+}	1115.37	5/2^{-}	M2	0.00024	α=0.00024; α(K)=0.00021 *1*
1669.6 *3*	28 *4*	1669.63	7/2^{-}	0	3/2^{-}	E2		
2502.6 *6*	48 *6*	2502.8	9/2^{+}	0	3/2^{-}	E3		

† Absolute intensity per 100 decays.
‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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