^{129}Sn IT decay (2.22 μs) 2002Ge07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Janos Timar and Zoltan Elekes, Balraj Singh	NDS 121, 143 (2014)	31-May-2014

Parent: ^{129}Sn: E=1802.6 *10*; J^π=(23/2$^+$); $T_{1/2}$=2.22 μs *14*; %IT decay=100.0

^{129}Sn Levels

E(level)†	J^π†	$T_{1/2}$†	Comments
35.15 *5*	11/2$^-$	6.9 min *1*	%β^-=100; %IT<2×10^{-3}
1171.48 *7*	(15/2$^-$)		
1359.40 *7*	(13/2$^-$)		
1741.89 *7*	(15/2$^+$)		
1761.6 *10*	(19/2$^+$)	3.40 μs *13*	%IT=100
1802.6 *10*	(23/2$^+$)	2.22 μs *14*	%IT=100

† From Adopted Levels.

γ(^{129}Sn)

E_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.†	α‡	Comments
19.7 *10*	1761.6	(19/2$^+$)	1741.89	(15/2$^+$)	(E2)	1.0×10^3 *3*	α(L)=7.8×10^2 *23*; α(M)=1.6×10^2 *5*; α(N)=27 *9*; α(O)=0.58 *17*
41.0 *2*	1802.6	(23/2$^+$)	1761.6	(19/2$^+$)	(E2)	39.9 *10*	α(K)=13.64 *23*; α(L)=21.1 *6*; α(M)=4.37 *12* α(N)=0.756 *21*; α(O)=0.0195 *5* Mult.: from K x ray intensity and L-conversion intensity in ^{239}Pu(F,nγ). E_γ: from ^{129}In β^- decay (0.67 s).
382.49 *2*	1741.89	(15/2$^+$)	1359.40	(13/2$^-$)			
570.41 *3*	1741.89	(15/2$^+$)	1171.48	(15/2$^-$)			
1136.31 *5*	1171.48	(15/2$^-$)	35.15	11/2$^-$			
1324.25 *5*	1359.40	(13/2$^-$)	35.15	11/2$^-$			

† From Adopted Gammas.

‡ 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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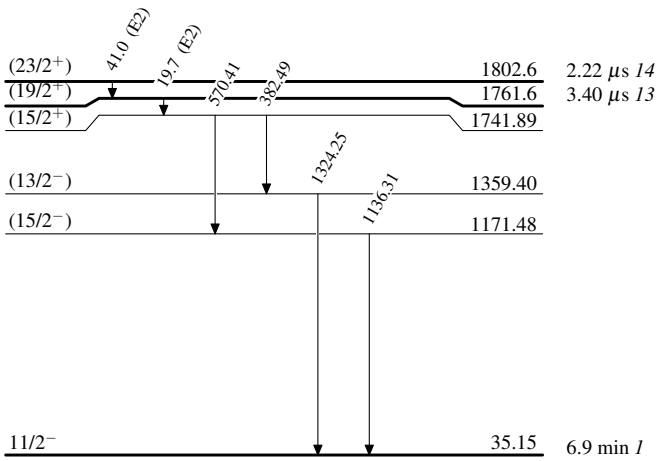
Decay Scheme

%IT=100.0



$^{129}_{50}Sn_{79}$