^{121}Sn β^- decay (43.9 y) 1968Sn01,1978Hu07,1982Ha31

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

Parent: ^{121}Sn: E=6.30 *8*; $J^\pi=11/2^-$; $T_{1/2}$=43.9 y *5*; Q(β^-)=390.6 *21*; %β^- decay=22.4 *20*
^{121}Sn-%β^- decay: from I(β^-)/I(IT)=22.4/77.6 (1978Hu07); and no β^- feeding to g.s. ($11/2^-$ to $5/2^+$).
1968Sn01: semi γ, scin 4π $\beta\gamma$-coincidence β spectra.
1978Hu07: semi, scin 4π $\beta\gamma$-coincidence, deduced I(β^-)/I(IT). I(L x ray).
1984Ha09: Si(Li), deduced I(37.15γ)/I(K x ray).
2002Re18: Ge detector, γ(t) deduced $T_{1/2}$.

^{121}Sb Levels

E(level)†	J^π†	$T_{1/2}$	Comments
0.0	$5/2^+$	stable	
37.15 *4*	$7/2^+$	3.46 ns *3*	$T_{1/2}$: from Adopted Levels.

† From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-†	Log *ft*	Comments
(359.8 *21*)	37.15	100	9.58[1u] *4*	av Eβ=122.44 *74* E(decay): 354 *5* F-K plot nonlinear $\Delta J=2$, yes (1968Sn01).

† For absolute intensity per 100 decays, multiply by 0.224 *20*.

γ(^{121}Sb)

Eγ	Iγ†	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.	α‡	Comments
37.15 *4*	8.26	37.15	$7/2^+$	0.0	$5/2^+$	M1	10.86	α(K)=9.35 *14*; α(L)=1.225 *18*; α(M)=0.243 *4*; α(N+..)=0.0513 *8* α(N)=0.0467 *7*; α(O)=0.00458 *7* Mult.: from α(K)exp=9.32 *37* (1968Sn01), 9.45 *33* (1978Hu07), 9.52 *27* (1984Ha09), 8.7 *2* (2002Zh51).

† For absolute intensity per 100 decays, multiply by 0.224 *20*.
‡ 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

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays