^{129}Sb IT decay (17.7 min) 1987St23,1987StZO,1982Hu09

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}Sb: E=1851.29 *10*; J^π=(19/2$^-$); $T_{1/2}$=17.7 min *1*; %IT decay=15.0
1987St23, 1987StZO: ^{235}U(n,F) E=th, on-line ms; semi, γ, ce, $\gamma\gamma$-coin, $T_{1/2}$.
1982Hu09: ^{235}U(n,F) E=th, on-line ms; Ge γ, $\gamma\gamma$-coin, $T_{1/2}$.
See also ^{129}Sn β^- decay (6.9 min).

^{129}Sb Levels

1982Hu09 report a 17-min isomer with excitation energy unknown. 1987St23 assign the isomer to 1851 level.

E(level)	J^π[†]	$T_{1/2}$[†]	Comments
0.0	7/2$^+$	4.366 h *26*	
1128.60 *8*	(11/2$^+$)		
1851.29 *10*	(19/2$^-$)	17.7 min *1*	%IT=15 (1987St23); %β^-=85 $T_{1/2}$: from γ-multiscaling (1982Hu09), 17.1 min (1987St23).

[†] From Adopted Levels.

γ(^{129}Sb)

E_γ[†]	I_γ[‡#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[@]	$I_{(\gamma+ce)}$[#]	Comments
722.69 *5*	94.8	1851.29	(19/2$^-$)	1128.60	(11/2$^+$)	(M4)	0.0547	100	α(K)=0.0457 *7*; α(L)=0.00721 *11*; α(M)=0.001462 *21* α(N)=0.000281 *4*; α(O)=2.68×10^{-5} *4* Additional information 2. Mult.: from α(K)exp=0.049 *9* (1987St23).
1128.60 *8*	100	1128.60	(11/2$^+$)	0.0	7/2$^+$			100	Additional information 1.

[†] From 1987StZO.
[‡] Deduced from I(γ+ce)=100 and α.
[#] For absolute intensity per 100 decays, multiply by 0.15.
[@] 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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