^{124}Sn IT decay 1992Br06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu	NDS 109, 1655 (2008)	1-Apr-2008

Parent: ^{124}Sn: E=2656.6 *5*; $J^\pi=(10^+)$; $T_{1/2}$=45 μs *5*; %IT decay=100.0
1992Br06: ^{124}Sn(^{76}Ge,^{76}Ge′) E=325 MeV; measured off-beam γ, γ(t), $\gamma\gamma$.
The decay scheme is that proposed by 1992Br06.

^{124}Sn Levels

E(level)†	J^π‡	$T_{1/2}$	Comments
0.0	0^+		
1131.696 *20*	2^+		
2204.58 *3*	5^-		
2324.96 *5*	(7^-)		
2578.39 *5*	$8^{(+)}$		
2656.6 *5*	(10^+)	45 μs *5*	%IT=100 $T_{1/2}$: from measurements with pulsed beam (1992Br06).

† From a least-squares fit to Eγ′s.
‡ From Adopted Levels.

$\gamma(^{124}Sn)$

E_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	δ	α@	Comments
78.2‡ *5*	2656.6	(10^+)	2578.39	$8^{(+)}$	E2		3.86	α(K)=2.55; α(L)=1.05; α(M)=0.214; α(N+..)=0.0441 B(E2)(W.u.)=0.024 *3* Mult.: $\alpha\approx4$ from I(78.2γ)/I(253.45γ)≈0.2 measured by 1992Br06 and intensity balance at 2578 level. α(theory)=0.36 (E1), 1.15 (M1), 3.86 (E2), 56 (E3), 15 (M2).
120.38 *3*	2324.96	(7^-)	2204.58	5^-				
253.43 *3*	2578.39	$8^{(+)}$	2324.96	(7^-)	D+Q	+0.09 *5*		
1072.88 *2*	2204.58	5^-	1131.696	2^+				
1131.69 *2*	1131.696	2^+	0.0	0^+				

† From adopted gammas, unless otherwise noted.
‡ From 1992Br06.
# 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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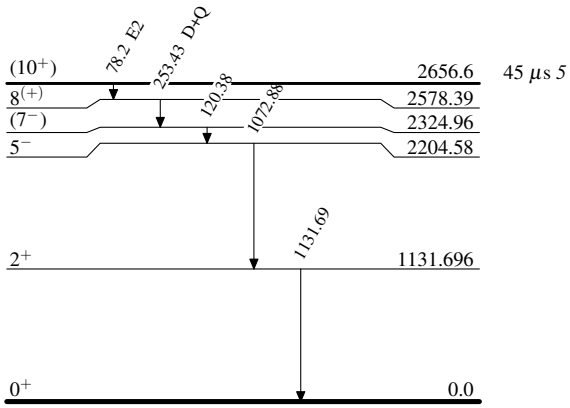
Decay Scheme

%IT=100.0



$^{124}_{50}Sn_{74}$