^{124}Sn(^{80}Se,Xγ) 1994Ma48,1992Ma27

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 174, 1 (2021)	15-Apr-2021

1994Ma48, 1992Ma27, 1995Da26: E=344 MeV ^{80}Se beam was produced from the ATLAS accelerator at ANL. Target was 1 mg/cm^2 >95% enriched ^{124}Sn. γ rays were detected with 12 Compton-suppressed Ge detectors of the Argonne-Notre Dame BGO γ-ray facility. Measured Eγ, $\gamma\gamma$-coin, $\gamma\gamma$(t). Deduced levels, J, π, $T_{1/2}$.

^{123}Sn Levels

E(level)†	J$^\pi$‡	$T_{1/2}$	Comments
0.0	11/2$^-$#		
1107.0 *9*	(15/2$^-$)		
1217.0 *9*	(13/2$^-$)		
1926.0 *10*	(17/2$^-$)		
1945.0 *10*	(19/2$^+$)	7.4 μs *26*	$T_{1/2}$: from delayed γ versus beam pulse (1992Ma27).
2153.0 *12*	(23/2$^+$)	6 μs	$T_{1/2}$: from delayed γ versus beam pulse (1994Ma48,1995Da26). No $\Delta T_{1/2}$ value have been given.
2263.0 *12*	(19/2$^-$)		
2396.0 *14*	(21/2$^+$)		
2543.0 *13*	(23/2$^-$)		
2713.0 *14*	(27/2$^-$)	34 μs	$T_{1/2}$: from delayed γ versus beam pulse (1994Ma48,1995Da26). No $\Delta T_{1/2}$ value have been given.

† From a least-squares fit to γ-ray energies, assuming $\Delta E\gamma$=1 keV.

‡ Given by authors based on systematics and calculation of seniority scheme of $h_{11/2}$ level energies, except as noted. However the parentheses have been added by the evaluator.

From Adopted Levels.

γ(^{123}Sn)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
(19)	1945.0	(19/2$^+$)	1926.0	(17/2$^-$)	E$_\gamma$: Eγ from difference of level energies.
147	2543.0	(23/2$^-$)	2396.0	(21/2$^+$)	
170	2713.0	(27/2$^-$)	2543.0	(23/2$^-$)	
208	2153.0	(23/2$^+$)	1945.0	(19/2$^+$)	
243	2396.0	(21/2$^+$)	2153.0	(23/2$^+$)	
280	2543.0	(23/2$^-$)	2263.0	(19/2$^-$)	
560	2713.0	(27/2$^-$)	2153.0	(23/2$^+$)	
709	1926.0	(17/2$^-$)	1217.0	(13/2$^-$)	
728	1945.0	(19/2$^+$)	1217.0	(13/2$^-$)	
819	1926.0	(17/2$^-$)	1107.0	(15/2$^-$)	
838	1945.0	(19/2$^+$)	1107.0	(15/2$^-$)	
1107	1107.0	(15/2$^-$)	0.0	11/2$^-$	
1156	2263.0	(19/2$^-$)	1107.0	(15/2$^-$)	
1217	1217.0	(13/2$^-$)	0.0	11/2$^-$	

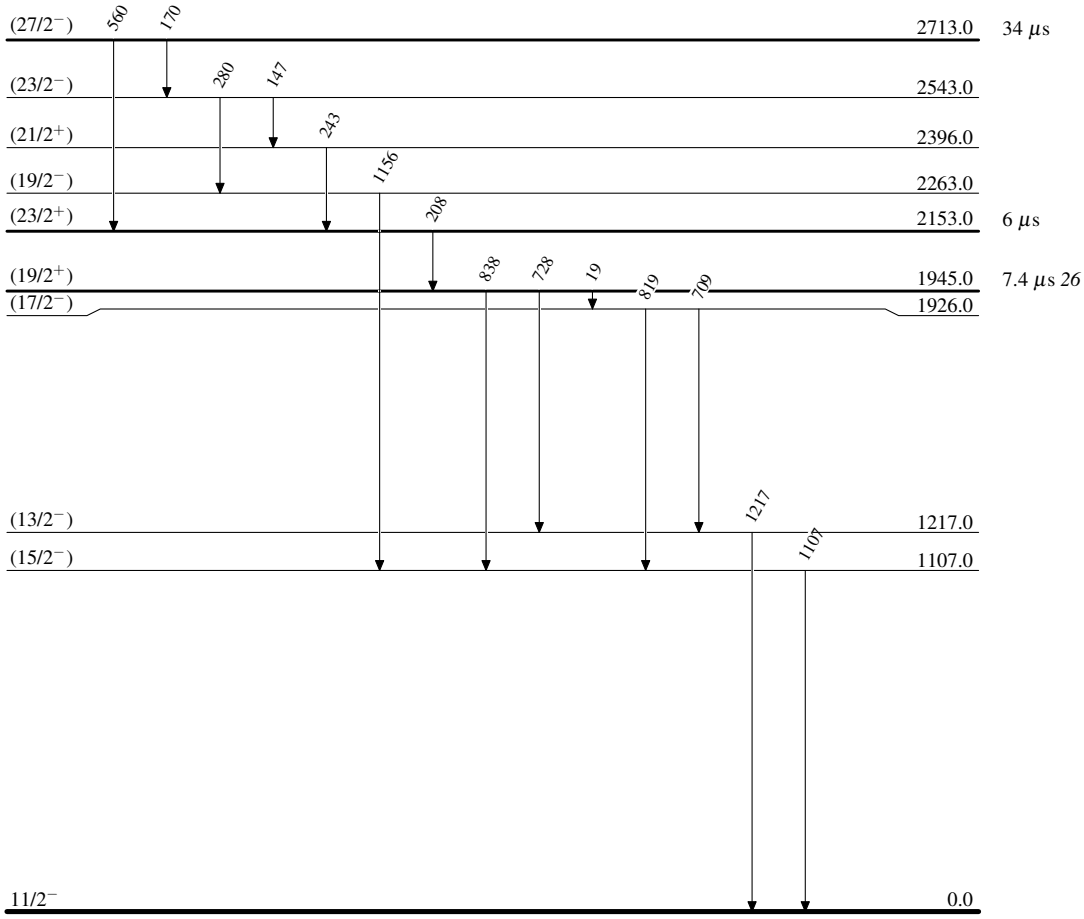
† From 1994Ma48.

Legend

^{124}Sn(^{80}Se,Xγ) 1994Ma48,1992Ma27

Level Scheme

γ Decay (Uncertain)



$^{123}_{50}Sn_{73}$