

$^{124}\text{Sn}(\alpha, ^3\text{He})$ 1973Bi09,1991Ma06

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	J. Katakura	NDS 112, 495 (2011)	1-Jan-2010

1973Bi09: E=65.7 MeV, broad-range magnetic spectrograph, enriched target 99%, $\theta=15^\circ, 20^\circ$, FWHM \approx 55 keV; see $^{124}\text{Sn}(\text{d,p})$.

1991Ma06: E=183 MeV, multi-wire proportional chamber, mag spect, enriched target 94.7%, $\theta=2.5^\circ-15^\circ$, FWHM=100 keV for thin target.

 ^{125}Sn Levels

E(level) [†]	L [‡]	C ² S	Comments
0	5	0.41	C ² S: 0.30 from 1991Ma06.
26 5			
1377 5	4	0.056	E(level): 1362.52 keV in Adopted Levels.
2767 10	3	0.54	
3193 10	3	0.059	
3530 10	(5)	0.04	
3730 40	(5)	0.05	
3830 10	(1)+(5)		C ² S: 0.10 for L=1 component; 0.02 for L=5 component.
3940 10	(3)+(5)		C ² S: 0.01 for L=3 component; 0.01 for L=5 component.
4010 40	(5)	0.06	
4200 40	(3)	0.06	E(level): a composite peak of 4180 + 4240.
4580 10	(5)	0.11	
4930 40	(5)	0.11	
5020 10	(5)	0.15	
5120 40	(5)	0.15	
5230 40	(5)	0.11	

[†] From $^{124}\text{Sn}(\text{d,p})$ except for the 3730-, 4010-, 4930-, 5120-, and 5230-keV levels (1973Bi09) whose uncertainties are estimated to be 40 keV by the evaluators.

[‡] Assignments for L=3, 4, and 5 are, respectively, f7/2, g7/2, and h9/2 for shell model except for the ground state of h11/2.