

$^{118}\text{Sn}(\text{d,p}\gamma)$ 1976Ma09

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli		NDS 110,2945 (2009)	1-Dec-2008

E=5-10 MeV; self-supported target (92-98.5% enriched. 2.5-3.5 mg/cm²); measured semi γ , $\text{p}\gamma$ -coin, $\gamma\gamma$, excit.

 ^{119}Sn Levels

E(level)	$J^{\pi\dagger}$	$T_{1/2}$	Comments
0	$1/2^+$		
23.9 5	$3/2^+$		
89.5 11	$11/2^-$	293 d 1	$T_{1/2}$: From Adopted Levels.
787.6 7	$7/2^+$		
920.5 8	$3/2^+$		
921.4 8	$5/2^+$		
1062.3 15	$7/2^-$		
1089.4 7	$5/2^+$		
1187.4 6	$3/2^+, 5/2^+$		
1249.2 6	$1/2^+$		
1303.5 15	$\geq 7/2$		
1354.3 8	$5/2^+$		

† From Adopted Levels.

 $\gamma(^{119}\text{Sn})$

$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\ddagger}$	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	Comments
23.9		23.9	$3/2^+$	0	$1/2^+$	
65.6		89.5	$11/2^-$	23.9	$3/2^+$	
$^x650.9$	8.5 17					
x697						
763.7 4	82 16	787.6	$7/2^+$	23.9	$3/2^+$	
$^x768.1$ 7	86 17					
$^x838.0$ 8	12 3					
x846 1	20 6					
896.6 [#]	35 [@] 20	920.5	$3/2^+$	23.9	$3/2^+$	
897.5 [#]	113 [@] 19	921.4	$5/2^+$	23.9	$3/2^+$	
920.5 [#]	106 [@] 15	920.5	$3/2^+$	0	$1/2^+$	
921.4 [#]	37 [@] 13	921.4	$5/2^+$	0	$1/2^+$	
972.8 10	66 13	1062.3	$7/2^-$	89.5	$11/2^-$	
1065.4 7	100	1089.4	$5/2^+$	23.9	$3/2^+$	
1089.6		1089.4	$5/2^+$	0	$1/2^+$	I_{γ} : weak.
1163.5 5	51 5	1187.4	$3/2^+, 5/2^+$	23.9	$3/2^+$	
1187.4		1187.4	$3/2^+, 5/2^+$	0	$1/2^+$	I_{γ} : weak.
1214 1	160 80	1303.5	$\geq 7/2$	89.5	$11/2^-$	
1225.3		1249.2	$1/2^+$	23.9	$3/2^+$	
1249.2 7	40 4	1249.2	$1/2^+$	0	$1/2^+$	
1330.6 10	20 8	1354.3	$5/2^+$	23.9	$3/2^+$	
1354 1	14.5 15	1354.3	$5/2^+$	0	$1/2^+$	
x1549 1						
x1592 1	31 5					

† Authors give one set of E_{γ} values for their ($\alpha, n\gamma$) and ($\text{d,p}\gamma$) studies.

Continued on next page (footnotes at end of table)

 $^{118}\text{Sn}(\text{d},\text{p}\gamma)$ **1976Ma09** (continued) $\gamma(^{119}\text{Sn})$ (continued)

[‡] Relative photon intensity at E(d)=7 MeV.

[#] E γ from Adopted Gammas.

[@] Value divided based on branching ratios in Coul. ex.

^x γ ray not placed in level scheme.

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Level Scheme

Intensities: Relative I_γ

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

