

$^{118}\text{Sn}(\text{d,p})$ 1975Bo25

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

1975Bo25: E=17 MeV; magnetic spectrograph, ≈ 9 keV FWHM, 14 angles at 8° – 69° ; 96.62% enriched target.

Other: 1967Sc12: E=15 MeV; magnetic spectrograph, 40-60 keV FWHM, 8 angles at 9° – 50° ; target thickness 2-4 mg/cm².

 ^{119}Sn Levels

E(level)	J^π	$T_{1/2}$	$L^\ddagger$	$S^\#$	Comments
0	$1/2^+$		0	0.29	
24 1	$3/2^+$		2	0.52	
89 1	$11/2^-$	293 d 1	5	0.69	$T_{1/2}$: From Adopted Levels.
788 2	$7/2^+$		4	0.059	
922 3	$5/2^+$		2	0.009	
1062 3	$7/2^-$		3	0.034	
1088 3	$5/2^+$		2	0.14	
1186 3	$3/2^+, 5/2^+$		2	0.021	
1248 4	$1/2^+$		0	0.011	
1309 4	$\geq 7/2$		(2)	0.003	
1354 4	$5/2^+$		2	0.021	
1553 4	$3/2^+, 5/2^+$		2	0.017	
1631 4	$3/2^+, 5/2^+$		2	0.003	
1715 5	$3/2^+, 5/2^+$		2	0.007	
1905 5	$3/2^+, 5/2^+$		2	0.008	
2120 6	$1/2^+$		0	0.011	
2258 6	$3/2^+, 5/2^+$		2	0.003	
2322 6	$3/2^+, 5/2^+$		2	0.006	
2367 6	$3/2^+, 5/2^+$		2	0.011	
2549 7	$5/2^-, 7/2^-$		3	0.047	
2636 7	$(5/2^-, 7/2^-)$		(3)	0.090	
2723 @ 7					
2771? @ 7					
2813? 7					
2823 7					
2846 8	$3/2^+, 5/2^+$		2	0.032	
2874 8	$3/2^+, 5/2^+$		2	0.034	
2900 8	$3/2^+, 5/2^+$		2	0.034	
2939 8	$3/2^+, 5/2^+$		2	0.021	
2965 @ 8					
3071 8	$3/2^+, 5/2^+$		2	0.035	
3093 8	$5/2^-, 7/2^-$		3	0.025	
3158 8	$5/2^-, 7/2^-$		3	0.045	
3191 8					
3279 9	$3/2^+, 5/2^+$		2	0.032	
3366 9					
3375 9	$(3/2^+, 5/2^-, 7/2^-)$		(2,3)	0.025, 0.027	
3389 9					
3442 9	$1/2^-, 3/2^-$		1	0.013	
3481 9	$1/2^-, 3/2^-$		1	0.028	
3527 9	$1/2^-, 3/2^-$		1	0.019	
3566 9	$1/2^-, 3/2^-$		1	0.013	
3595 9	$(1/2^-, 3/2^-, 5/2^-)$		(1,3)	0.015, 0.014	
3618 9	$1/2^-, 3/2^-$		1	0.026	
3656 10	$1/2^-, 3/2^-$		1	0.019	
3675? 10					

Continued on next page (footnotes at end of table)

$^{118}\text{Sn}(\text{d,p})$ **1975Bo25 (continued)** ^{119}Sn Levels (continued)

E(level)	$J^\pi^\dagger$	$L^\ddagger$	$S^\#$	E(level)	$J^\pi^\dagger$	$L^\ddagger$	$S^\#$	E(level)	$J^\pi^\dagger$	$L^\ddagger$	$S^\#$
3690? <i>10</i>				4031 <i>10</i>				4418 <i>11</i>			
3730 <i>10</i>				4062 <i>11</i>	$1/2^-, 3/2^-$	1	0.019	4435 <i>12</i>			
3770? <i>10</i>				4115 <i>11</i>				4451 <i>12</i>			
3807 <i>10</i>	$1/2^-, 3/2^-$	1	0.075	4138 <i>11</i>				4521 <i>12</i>			
3843 <i>10</i>	$1/2^-, 3/2^-$	1	0.026	4191 <i>11</i>				4552 <i>12</i>	$(5/2^-, 7/2^-)$	(3)	0.019
3880? <i>10</i>				4210 <i>11</i>				4610 <i>12</i>	$(1/2^-, 3/2^-)$	(1)	0.007
3891? <i>10</i>	$(1/2^-, 3/2^-)$	(1)	0.005	4235 <i>11</i>	$5/2^-, 7/2^-$	3	0.006	4663 <i>12</i>			
3905? <i>10</i>				4261 <i>11</i>	$5/2^-, 7/2^-$	3	0.009	4688 <i>12</i>			
3921 <i>10</i>	$5/2^-, 7/2^-$	3	0.008	4301 <i>11</i>	$(1/2^-, 3/2^-)$	(1)	0.014	4758 <i>12</i>			
3955 <i>10</i>	$(1/2^-, 3/2^-)$	(1)	0.034	4350 <i>11</i>							
3987 <i>10</i>				4380 <i>11</i>	$1/2^-, 3/2^-$	1	0.037				

 † From Adopted Levels. ‡ From DWBA analysis. $^\#$ From DWBA analysis. Authors assumed $p_{3/2}$ for $L=1$, $d_{5/2}$ for $L=2$ (except $d_{3/2}$ for 24-,1186-,1553-,2322-,2846-,2900-keV levels), $f_{7/2}$ for $L=3$, $g_{7/2}$ for $L=4$, and $h_{11/2}$ for $L=5$. $^@$ Probable doublet (**1975Bo25**).