

$^{118}\text{Sn}(\text{p,p}),(\text{p,p}'),(\text{p,n})$ IAS [1966Ri06](#),[1966Ha16](#),[1968Ve08](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli		NDS 110,2945 (2009)	1-Dec-2008
(p,p): 1968Ve08 E(p)=6.5-9.5 MeV; semi, measured $\sigma(\text{E}(\text{p}),\theta)$, $\theta=71^\circ$, 138° ; deduced J				
1966Ri06 E(p)=6.2-9.4 MeV; semi, measured $\sigma(\text{E}(\text{p}),\theta)$, $\theta=90^\circ$, 125° , 165° ; deduced widths, L				
(p,p'): 1966Al10 E(p)=8.2-12 MeV; magnetic spectrograph, measured $\sigma(\text{E}(\text{p}))$ at $\theta=90^\circ$; 34 resonances reported				
(p,n): 1966Ha16 E(p)=7-9 MeV; proportional counter, measured $\sigma(\text{E}(\text{p}))$ at $\theta=90^\circ$; deduced Γ , Coulomb displacement energy				
1966Ri06 E(p)=7.0-8.7 MeV; neutron tof, measured $\sigma(\text{E}(\text{p}))$; deduced Coulomb displacement energy				
Others: $^{119}\text{Sn}(\text{p,np})$ (1975Fi01 , 1977Fi10 , 1978Fi07 , 1974Wh06 , 1971Mi03 , 1977Ba52)				
$^{119}\text{Sn}(^3\text{He,t})$ (1976Be49 , 1995Ph01)				

 ^{119}Sb Levels

Coulomb displacement energy=13728 20 ([1976Be49](#)), 13728 15 ([1966Ha16](#)), 13667 30 ([1977Ba52](#)).

E(level) [†]	J ^π	L	Comments
0.0			
12367 12	1/2 ⁺	0	E(p)(C.M.)=7258 8; weighted average of 7255 15 (1966Ri06), 7261 10 (1966Ha16), and 7251 20 (1976Be49). Others: 7280 (1966AlZY), 7230 60 (1971Mi03). $\Gamma=39$ 9 keV, $\Gamma(\text{p})=10$ 5 keV (1976Be49). $\Gamma=50$ keV, $\Gamma(\text{p})=17$ keV (1966Ri06). $\Gamma=60$ 5 keV (1966Ha16). $\Gamma(\text{p})/\Gamma=0.320$ 15 (1977Fi10), 0.38 5 (1971Mi03), ≈ 0.3 (1977Ba52). J ^π : IAS of the 1/2 ⁺ g.s. in ^{119}Sn .
12385 17	3/2 ⁺	2	E(p)(C.M.)=7276 15 (1966Ri06). Other: 7300 (1966AlZY). $\Gamma=32$ keV; $\Gamma(\text{p})=5$ keV (1966Ri06), $\Gamma(\text{p})=7$ keV (1968Ve08). J ^π : IAS of the 23.9-keV 3/2 ⁺ level in ^{119}Sn .
13169	7/2 ⁺		J ^π : IAS of the 787-keV 7/2 ⁺ level in ^{119}Sn .
13299	3/2 ⁺		J ^π : IAS of the 920-keV 3/2 ⁺ level in ^{119}Sn .
13432 12	5/2 ⁺	2	E(p)(C.M.)=8323 9; weighted average of 8328 15 (1966Ri06) and 8321 10 (1966Ha16). Other: 8350 (1966AlZY). $\Gamma=37$ keV, $\Gamma(\text{p})=3$ keV (1966Ri06). $\Gamma=50$ 5 keV (1966Ha16). J ^π : IAS of the 1089-keV 5/2 ⁺ level in ^{119}Sn .
13707 17	5/2 ⁺		E(p)(C.M.)=8598 15 (1966Ri06). Other: 8630 (1966AlZY). $\Gamma\approx 40$ keV, $\Gamma(\text{p})\approx 1.7$ keV (1968Ve08). J ^π : IAS of the 1355-keV 5/2 ⁺ level in ^{119}Sn .
14289			E(p)(C.M.)=9180 (1966AlZY). $\Gamma\approx 70$ keV, $\Gamma(\text{p})\approx 4$ keV (1966Ri06).

[†] From S(p)=5109 8 ([1995Au04](#))+res E(p)(C.M.).