

$^{120}\text{Sn}(\text{p,p}),(\text{pol p,p})$ IAS 1966Ri06,1968Ve08,1975Ar04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

1966Ri06: (p,p),(p,n), E(lp)=7.2-9.1 MeV, enriched target, measured $\sigma(E(p),\theta)$, deduced widths, L; the level energies from (p,n) are consistent with those from (p,p).

1968Ve08: (p,p) E(p)=6.5-9.5 MeV; semi, measured $\sigma(E(p),\theta)$, deduced J.

1975Ar04: E(pol p)=9.6-11.5 MeV, enriched target, measured excitation $\sigma(\theta)$, analyzing power(E, θ); deduced res energy, $\Gamma(\text{total})$, $\Gamma(\text{p})$, J^π , $\sigma(\theta)$, analyzing power(E, θ), uncertainties in E(res) range from 5 to 20 keV; Evaluator assumed ΔE to be 20keV.

Others: 1966Ha16, 1970Ar23, 1971Da18, 1976Be49, 1977Ba52.

Coulomb displacement energy=13665 20, calculated by evaluator from E(res) + S(n) (^{121}Sn) with E(res) of $3/2^+$ state.

 ^{121}Sb Levels

E(level) [@]	J^π [‡]	$T_{1/2}$	L ^{&}	Comments
13274 [†] 15	$3/2^+$ [#]	39 keV	2	E(level): IAR of g.s. $3/2^+$ in ^{121}Sn $\Gamma(\text{p})=7.5$ keV.
13349 [†] 15	$1/2^+$ [#]	60 keV	0	E(level): IAR of 60.3-keV, $1/2^+$ state in ^{121}Sn $\Gamma(\text{p})=24$ keV.
14400 [†] 15	$5/2^+$ [#]	53 keV	2	E(level): IAR of 1120-keV, $5/2^+$ state in ^{121}Sn $\Gamma(\text{p})=3$ keV.
14703 [†] 15	$5/2^+$ [#]	38 keV	2	E(level): IAR of 1432-keV, $5/2^+$ state in ^{121}Sn $\Gamma(\text{p})=1.5$ keV.
15870 20	$7/2^-$	28 keV	3	E(level): IAR of 2589-keV, $7/2^-$ state in ^{121}Sn ; $\Gamma(\text{p})=2.2$ keV.
15952 20	$7/2^-$	70 keV	3	E(level): IAR of 2666-keV, $7/2^-$ state in ^{121}Sn ; $\Gamma(\text{p})=10.8$ keV.
16210 20	$(7/2^-)$	50 keV	(3)	E(level): IAR of 2927-keV, $(7/2^-)$ state in ^{121}Sn ; $\Gamma(\text{p})=2.0$ keV.
16302 20	$(7/2^-)$	42 keV	(3)	E(level): IAR of 3019-keV, $(7/2^-)$ state in ^{121}Sn ; $\Gamma(\text{p})=1.3$ keV.
16399 20	$(7/2^-)$	58 keV	(3)	E(level): IAR of 3138-keV $(7/2^-)$ state in ^{121}Sn ; $\Gamma(\text{p})=1.5$ keV.
16595 20	$(7/2^-)$	78 keV	(3)	E(level): IAR of 3326-keV, $(7/2^-)$ state in ^{121}Sn ; $\Gamma(\text{p})=2.3$ keV.
16667 20	$3/2^-$	107 keV	1	E(level): IAR of 3396-keV $3/2^-$ state in ^{121}Sn ; $\Gamma(\text{p})=6.6$ keV.
16795 20	$3/2^-$	52 keV	1	E(level): IAR of 3510-keV, $3/2^-$ state in ^{121}Sn ; $\Gamma(\text{p})=5.0$ keV.
16940 20	$(3/2^-)$	110 keV	1	E(level): IAR of 3680-keV, $(3/2^-)$ state in ^{121}Sn ; $\Gamma(\text{p})=6.2$ keV.

[†] From $^{120}\text{Sn}(\text{p,p})$ cross-section measurement (1966Ri06), and $^{120}\text{Sn}(\text{p,p})$ polarization measurement (1968Ve08).

[‡] Determined from L and the analyzing power excitation function (1975Ar04), except where noted otherwise.

[#] L values from 1966Ri06 and J values from 1968Ve08.

[@] From S(p)=5778.5 21 (2009AuZZ)+res E(p)(c.m.).

[&] From optical-model calculation for angular distribution.