

$^{124}\text{Sn}(\text{pol p,p})$ IAR 1975Ar04

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

1975Ar04: E(pol p)=7.2-12.0 MeV, enriched target; measured $\sigma(\theta)$, analyzing power (E, θ), resonance Γ .

Others: 1966Ri06, 1966Ha16, 1970Ar23, 1971Da18.

Coulomb energy difference=13597 20, calculated by evaluators from E(res) + S(n) (^{125}Sn) with the resonance energy, E(res), of $3/2^+$ state.

 ^{125}Sb Levels

E(level) [†]	J π [‡]	L	Γ (keV) [#]	Comments
S(p)+7864	$3/2^+$	2	46 5	IAR of 27.5 keV, $3/2^+$ state in ^{125}Sn . $\Gamma_p=6.0$ keV.
S(p)+8071	$1/2^+$	0	51 5	IAR of 215.1 keV, $1/2^+$ state in ^{125}Sn . $\Gamma_p=13.1$ keV.
S(p)+9109	$(5/2)^+$	2	58 12	IAR of 1258-keV level in ^{125}Sn . $\Gamma_p=1.9$ keV.
S(p)+9393	$(5/2)^+$	2	33 7	IAR of 1540-keV level in ^{125}Sn . $\Gamma_p=0.7$ keV.
S(p)+10561	$7/2^-$	3	80 4	IAR of 2767-keV level in ^{125}Sn . $\Gamma_p=22.4$ keV.
S(p)+11160	$(3/2)^-$	(1)	2.1×10^2 11	IAR of 3349-keV level in ^{125}Sn . $\Gamma_p=42.6$ keV.
S(p)+11229	$(3/2)^-$	(1)	29 15	IAR of 3421-keV level in ^{125}Sn . $\Gamma_p=1.7$ keV.
S(p)+11651	$(1/2)^-$	1	84 42	IAR of 3830-keV level in ^{125}Sn . $\Gamma_p=16$ keV.
S(p)+11810	$(1/2)^-$	1	136 68	The closest level of L=(1) is observed at 4060 keV in $^{124}\text{Sn}(\text{d,p})$. Energy difference is too large. $\Gamma_p=33$ keV.

[†] Resonance energies are given in the C.M. system. The uncertainties are 5-20 keV.

[‡] From angular momentum and analyzing power measurements.

[#] Total width.