

$^{120}\text{Sn}(\text{p,d}),(^3\text{He},\alpha)$ IAS **1980Ta04,1980Ge01**

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

1980Ta04: $^{120}\text{Sn}(\text{p,d})$ E=55 MeV; magnetic spectrograph FWHM \approx 10 keV.

1980Ge01: $^{120}\text{Sn}(^3\text{He},\alpha)$ E=39 MeV; magnetic spectrograph FWHM=38 keV; 98.4% enriched target (380 $\mu\text{g}/\text{cm}^2$ thick).

Other: E=81 MeV (**1977Se01**).

Coulomb displacement energy=13425 30 keV (**1980Ge01**).

 ^{119}Sn Levels

E(level) [‡]	J ^{π}	L [†]	Comments
14995 5	9/2 ⁺	4	$\Gamma=36$ 9 keV (1980Ta04). $\Gamma=30$ 10 keV (1980Ge01). J ^{π} : IAS of the 9/2 ⁺ g.s. in ^{119}In .
15329 5	1/2 ⁻	1	$\Gamma=36$ 10 keV (1980Ta04). $\Gamma=40$ 15 keV (1980Ge01). J ^{π} : IAS of the 1/2 ⁻ 311-keV level in ^{119}In .
15622 5	3/2 ⁻	1	$\Gamma=36$ 8 keV (1980Ta04). $\Gamma=50$ 15 keV (1980Ge01). J ^{π} : IAS of the 3/2 ⁻ 604-keV level in ^{119}In .
16100 30	(1)		$\Gamma=70$ 20 keV (1980Ge01). E(level): from level energy, this state corresponds to the 1044-keV (5/2 ⁻) or 1050-keV (5/2 ⁺) level in ^{119}In . But either assignment is inconsistent with L($^3\text{He},\alpha$)=(1).
16470 30	9/2 ⁺	(4)	J ^{π} : IAS of the 1474-keV and/or 1450-keV level in ^{119}In from level energy.

[†] From **1980Ge01**.

[‡] From **1980Ta04** in (p,d), except for the 16100 and 16470 states which were reported only by **1980Ge01** in ($^3\text{He},\alpha$). The 5-keV uncertainties are relative only. The absolute uncertainties are \approx 50 keV.