

$^{147}\text{Sm}(^{36}\text{Ar},3n\gamma)$ 2011Pa24

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

$E(^{36}\text{Ar})=168$ MeV. Measured $E(\text{ce})$, $I(\text{ce})$ using SACRED spectrometer consisting of 25-element segmented Si detector and a solenoidal magnet. Channel selection performed with the recoil-decay tagging technique using the RITU gas-filled spectrometer and a position-sensitive Si strip detector; measured recoil- α -(ce) coincidences.

 ^{180}Hg Levels

<u>$E(\text{level})^\dagger$</u>	<u>J^π^\dagger</u>
0.0	0^+
420	0^+
434	2^+
601	2^+
706	4^+
1032	6^+
1436	8^+
1913	10^+

† From the Adopted Levels.

 $\gamma(^{180}\text{Hg})$

Combined K and L transition intensities given normalized to 100 for the 272 γ ; approximate values read by the evaluator from Fig. 1 of 2011Pa24.

<u>E_γ</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.†</u>	<u>Comments</u>
167 3	601	2^+	434	2^+	E0	K/L=6.6 20; Ice(K+L) \approx 66. Ice(167)=3% 1 relative to Ice(434)+I γ (434).
272	706	4^+	434	2^+	E2	K/L=2.0 3; Ice(K+L) \approx 100.
326	1032	6^+	706	4^+	E2	K/L=2.5 4; Ice(K+L) \approx 55.
404	1436	8^+	1032	6^+		Ice(K+L) \approx 29.
420 3	420	0^+	0.0	0^+	E0	K/L=5.8 25; Ice(K+L) \approx 13.
434	434	2^+	0.0	0^+	E2	K/L=3.0 8; Ice(K+L) \approx 22.
477	1913	10^+	1436	8^+		Ice(K+L) \approx 26.

† From measured K/L ratio. Values given in comments were read by the evaluator from Fig. 3 of 2011Pa24.

$^{147}\text{Sm}(^{36}\text{Ar}, 3n\gamma)$ 2011Pa24Level Scheme