

$^{150}\text{Sm}(p,3n\gamma)$ E=26 MeV 1981Pi10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 117, 1 (2014)	1-Oct-2013

Measured: E_γ , I_γ , $\gamma(\theta)$, $\gamma\gamma$ coin, γ excitation functions, Ice, $\gamma(t)$. See ^{148}Eu IT decay.

Level scheme is from 1981Pi10.

 ^{148}Eu Levels

E(level) [†]	J^π [‡]
0.0	5 ⁻
232.80 9	6 ⁻
312.20 9	6 ⁻
518.49 12	7 ⁻
708.41 10	7 ⁺

[†] From a least-squares fit to the E_γ data.

[‡] From Adopted Levels; supported by $\gamma(\theta)$, γ excitation functions and Ice data from IT decay and this data set.

 $\gamma(^{148}\text{Eu})$

E_γ	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	α [#]	Comments
190.0 3	1.3 4	708.41	7 ⁺	518.49	7 ⁻			I_γ : from (p,2n γ) data; γ obscured in (p,3n γ) reaction.
206.3 2	7.6 8	518.49	7 ⁻	312.20	6 ⁻	M1	0.242	$\alpha(K)=0.205$ 3; $\alpha(L)=0.0289$ 5; $\alpha(M)=0.00624$ 9 $\alpha(N)=0.001430$ 21; $\alpha(O)=0.000227$ 4; $\alpha(P)=2.25\times 10^{-5}$ 4 $A_2=-0.16$ 3, $A_4=+0.01$ 4.
232.8 1	205 12	232.80	6 ⁻	0.0	5 ⁻	M1	0.1738	$\alpha(K)=0.1473$ 21; $\alpha(L)=0.0208$ 3; $\alpha(M)=0.00448$ 7 $\alpha(N)=0.001026$ 15; $\alpha(O)=0.0001629$ 23; $\alpha(P)=1.620\times 10^{-5}$ 23 $A_2=-0.10$ 1, $A_4=+0.00$ 1.
285.7 1	50 4	518.49	7 ⁻	232.80	6 ⁻	M1	0.1002	$\alpha(K)=0.0850$ 12; $\alpha(L)=0.01190$ 17; $\alpha(M)=0.00257$ 4 $\alpha(N)=0.000588$ 9; $\alpha(O)=9.34\times 10^{-5}$ 14; $\alpha(P)=9.32\times 10^{-6}$ 13 $A_2=-0.08$ 1, $A_4=+0.00$ 1.
312.2 1	101 7	312.20	6 ⁻	0.0	5 ⁻	M1	0.0791	$\alpha(K)=0.0672$ 10; $\alpha(L)=0.00938$ 14; $\alpha(M)=0.00202$ 3 $\alpha(N)=0.000463$ 7; $\alpha(O)=7.36\times 10^{-5}$ 11; $\alpha(P)=7.36\times 10^{-6}$ 11 $A_2=-0.10$ 1, $A_4=+0.01$ 1.
396.2 1	42 3	708.41	7 ⁺	312.20	6 ⁻	E1	0.00774	$\alpha(K)=0.00660$ 10; $\alpha(L)=0.000893$ 13; $\alpha(M)=0.000191$ 3 $\alpha(N)=4.36\times 10^{-5}$ 7; $\alpha(O)=6.82\times 10^{-6}$ 10; $\alpha(P)=6.39\times 10^{-7}$ 9 $A_2=-0.12$ 1, $A_4=+0.01$ 1.
475.6 1	100	708.41	7 ⁺	232.80	6 ⁻	E1	0.00505	$\alpha(K)=0.00432$ 6; $\alpha(L)=0.000579$ 9; $\alpha(M)=0.0001240$ 18 $\alpha(N)=2.83\times 10^{-5}$ 4; $\alpha(O)=4.44\times 10^{-6}$ 7; $\alpha(P)=4.22\times 10^{-7}$ 6 $A_2=-0.14$ 1, $A_4=+0.01$ 1.

[†] From conversion electron data; $\alpha(K)_{\text{exp}}$ were normalized to that of 347 γ in ^{149}Eu assumed to be M2.

[‡] Relative intensity.

[#] Additional information 1.

$^{150}\text{Sm}(\text{p},3\text{n}\gamma) \text{ E}=26 \text{ MeV} \quad \mathbf{1981\text{Pi10}}$ Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

