

**<sup>141</sup>Sm IT decay (22.6 min) 1976Ke06**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 187,1 (2023)	12-Oct-2022

Parent: <sup>141</sup>Sm: E=175.9 3; J<sup>π</sup>=11/2<sup>-</sup>; T<sub>1/2</sub>=22.6 min 2; %IT decay=0.31 3

<sup>141</sup>Sm-%IT decay: %IT decay=0.31 3 from Ice(K)=0.164% 13 and α(K)/1+α=0.526(M4) for 174.2γ.

Measured: K x ray, ce-K x ray coin.

<sup>141</sup>Sm Levels

E(level)	J <sup>π</sup> †	T <sub>1/2</sub> †	Comments
0.0	1/2 <sup>+</sup>	10.2 min 2	
1.58 4	3/2 <sup>+</sup>		E(level): from 1977De25.
175.9 3	11/2 <sup>-</sup>	22.6 min 2	%IT=0.31 3

† Adopted values.

γ(<sup>141</sup>Sm)

E <sub>γ</sub>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>	Mult.	α <sup>†</sup>	I <sub>(γ+ce)</sub> ‡	Comments
(1.58)	1.58	3/2 <sup>+</sup>	0.0	1/2 <sup>+</sup>			100	I <sub>(γ+ce)</sub> : intensity balance for 1.58 level.
174.2 3	175.9	11/2 <sup>-</sup>	1.58	3/2 <sup>+</sup>	M4	68.2 12	100	ce(K)/(γ+ce)=0.528 9; ce(L)/(γ+ce)=0.348 7; ce(M)/(γ+ce)=0.0876 20 ce(N)/(γ+ce)=0.0199 5; ce(O)/(γ+ce)=0.00264 7; ce(P)/(γ+ce)=8.77×10 <sup>-5</sup> 21 α(K)=36.5 6; α(L)=24.0 5; α(M)=6.06 11 α(N)=1.374 24; α(O)=0.183 4; α(P)=0.00606 11 Mult.: K/L=1.7 4. I <sub>γ</sub> : Ice(K)=0.164% 13 from comparison with Ice(K) for 196.6γ in ε decay.

† Additional information 1.

‡ For absolute intensity per 100 decays, multiply by 0.0031 3.

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Legend

## Decay Scheme

%IT=0.31 3

-----►  $\gamma$  Decay (Uncertain)