

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93,33 (2001)	11-May-2001

$Q(\beta^-) = -1.37 \times 10^4$  syst;  $S(n) = 1.34 \times 10^4$  syst;  $S(p) = 1.9 \times 10^3$  syst;  $Q(\alpha) = 3.1 \times 10^3$  syst 2012Wa38

Note: Current evaluation has used the following Q record 2194 syst 2754 syst 1995Au04.

$\Delta(S(p)) = 1208$ ,  $\Delta(Q(\alpha)) = 1142$  (1995Au04).

$Q(\epsilon p) = 7033$  972 (syst, 1995Au04).

Existence of  $^{130}\text{Sm}$  implied from  $^{131}\text{Eu}$  p decay (1999So17, 1998Da03).

 $^{130}\text{Sm}$  LevelsCross Reference (XREF) Flags

A  $^{131}\text{Eu}$  p decay (17.8 ms)

E(level)	$J^\pi$	XREF	Comments
0	$0^+$	A	$\% \epsilon + \% \beta^+ = ?$
122 3	$(2^+)$	A	$T_{1/2} \approx 0.5$ s from systematics (1997Au04). $J^\pi$ : systematics of even-even nuclides. Estimated $\beta_2 = 0.34$ from energy of $2^+$ state.

 $\gamma(^{130}\text{Sm})$ 

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\dagger$	Comments
122	$(2^+)$	122 3	0	$0^+$	[E2]	1.16 II	$E_\gamma$ : observed indirectly as ce(K)+811 proton line in the proton spectrum from $^{131}\text{Eu}$ decay (1999So17).

$^\dagger$  Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on  $\gamma$ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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