

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. W. Reich	NDS 112,2497 (2011)	1-Jun-2011

$Q(\beta^-)=5120$ 13; $S(n)=4508$ 9; $S(p)=1.10\times 10^4$ syst; $Q(\alpha)=-2.64\times 10^3$ 3 [2012Wa38](#)

Note: Current evaluation has used the following Q record \$ 5060 130 4634 syst 11164 syst -2611 syst.

$Q(\beta^-)$: Value from [2007Ha57](#), total-absorption γ spectroscopy using a BGO detector. (The value actually given is 5065 130.) [2003ShZU](#), with many of the same authors as [2007Ha57](#), report $Q(\beta^-)=4.92$ MeV 10. [2003Au03](#), from systematics, list $Q(\beta^-)=4800$ 420.

$S(n), S(p), Q(\alpha)$: from [2009AuZZ](#). The uncertainties associated with these estimates from systematics are as follows: for $S(n)$, 357; for $S(p)$, 422; and, for $Q(\alpha)$, 357. [2003Au03](#) list the following values for these quantities (all from systematics): for $S(n)$, 4630 360; for $S(p)$, 11160 420; and, for $Q(\alpha)$, -2610 360.

Additional information 1.

With the exception of the Q values, all of the information presently available on the properties of the ^{161}Sm levels is from the β^- decay study reported by [1998Ic02](#). This information consists of a $T_{1/2}$ value and one γ ray (unplaced).

 ^{161}Sm Levels

E(level)	$T_{1/2}$	Comments
0	4.8 s 4	$\% \beta^- = 100$ J^π : From systematics, 2003Au02 list $J^\pi = 7/2^+$. $T_{1/2}$: Weighted average (by the evaluator) of the values 5.0 s 6 (x(t)), 4.8 s 10 ($\gamma(t)$), and 4.4 s 8 ($\gamma(t)$), all from 1998Ic02 . These authors report $T_{1/2} = 4.8$ s 8. Additional information 2.