

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1041 (2013)	1-Mar-2012

$Q(\beta^-)=-406.7$ ;  $S(n)=4968.6$ ;  $S(p)=5886.57$ ;  $Q(\alpha)=6863.614$  [2012Wa38](#)  
 Estimated  $\Delta S(p)=100$  ([2012Wa38](#)).

[Additional information 1.](#)

Calculations, compilations:

$\alpha$  decay: [1993Bu09](#), [2003De17](#).

Spontaneous Fission: [2009Zh36](#), [2008Sa24](#), [2005Ka42](#), [2005Re16](#), [2004Ro01](#), [2001Ng04](#).

Ground state properties: [1997Mo25](#), [1995Mo29](#).

Heavy cluster spontaneous emission: [1986Po15](#).

Pion decay: [1988Io05](#).

Single-particle Nilsson levels: [1994Cw02](#), [2005Pa73](#), [2000Pa12](#).

$Q(\alpha)$ ,  $T_{1/2}$ : [2011Zh36](#), [2010Ni02](#), [2009Sa25](#), [2008Do12](#), [2005GuZU](#).

Calculated neutron-separation energy: [2004Pa31](#).

[1994Cw02](#) calculate the following single-particle level sequence: g.s.,  $7/2[613]$ ; 0.00 MeV,  $11/2[725]$ ; 0.02 MeV,  $3/2[622]$ ; 0.07 MeV,  $1/2[620]$ ; 0.20 MeV,  $9/2[615]$ .

 $^{257}\text{Fm}$  LevelsCross Reference (XREF) Flags

**A**  $^{257}\text{Md}$   $\epsilon$  decay

E(level)	$J^\pi$	$T_{1/2}$	XREF	Comments
0.0	$(9/2^+)$	100.5 d 2	<b>A</b>	$\% \alpha = 99.7904$ ; $\% \text{SF} = 0.2104$ $J^\pi$ : from favored $\alpha$ HF to $(9/2^+)$ in $^{253}\text{Cf}$ , configuration= $(\nu 9/2[615])$ . $T_{1/2}$ : from <a href="#">1973Wi03</a> . Others: 85 d 25 ( <a href="#">1967As02</a> ), 94 d 10 ( <a href="#">1966Rg01</a> ), 80 d 5 ( <a href="#">1965Si14</a> ), 79 d 8 ( <a href="#">1964Hu02</a> ). $\% \text{SF}$ : From $\alpha/\text{SF} = 475.10$ ( <a href="#">1973Wi03</a> , <a href="#">2000Ho27</a> ); others: <a href="#">1967As02</a> , <a href="#">1966Rg01</a> , <a href="#">1964Hu02</a> , <a href="#">1965Si14</a> . Nucleus is $\beta^-$ , $\epsilon$ stable.