

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 114, 1041 (2013)	1-Aug-2011

$Q(\beta^-)=80$  SY;  $S(n)=4793$  SY;  $S(p)=6286$  SY;  $Q(\alpha)=6470$  SY    [2012Wa38](#)

Estimated  $\Delta Q(\beta^-)=346$ ,  $\Delta S(n)=347$ ,  $\Delta S(p)=411$ ,  $\Delta Q(\alpha)=200$  ([2012Wa38](#)).

[Additional information 1.](#)

Calculations, compilations:

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

Pion decay: [1988Io05](#).

Single-particle levels: [2005Pa13](#), [1994Cw02](#).

Spontaneous Fission: [2005Re16](#), [2004Ro01](#).

Proton Decay, Cluster Radioactivity: [2002Du16](#).

[1994Cw02](#) calculates the following single-particle level sequence: g.s. 9/2[615], 0.03 MeV 11/2[725], 0.05 MeV 7/2[613], 0.11 MeV 3/2[622], 0.17 MeV 1/2[620].

Assignment:  $^{257}\text{Fm}(t,p)$  ([1980Hu03](#)).

Symmetric mass distribution in SF found; most probable total kinetic energy release is 242 MeV ([1980Hu03](#)).

 $^{259}\text{Fm}$  Levels

E(level)	T <sub>1/2</sub>	Comments
0	1.5 s 2	%SF=100 T <sub>1/2</sub> : from <a href="#">2000Ho27</a> . Other values: 1.5 s 3 ( <a href="#">1980Hu03</a> ), 1.6 s 1 ( <a href="#">1985So03</a> ). %SF: only SF observed ( <a href="#">1980Hu03</a> ). % $\beta^-$ : from $Q(\beta^-)<430$ and $\log ft>5.3$ T <sub>1/2</sub> ( $\beta^-$ )>1×10 <sup>4</sup> s. % $\alpha$ : calculated T <sub>1/2</sub> ( $\alpha$ )≈3×10 <sup>11</sup> s ( <a href="#">1997Mo25</a> ).