

Adopted Levels

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

$Q(\beta^-) = -1253.7$; $S(n) = 6531$ SY; $S(p) = 3779.7$; $Q(\alpha) = 7558.1$ 2012Wa38
 $\Delta S(p) = 123$ (syst, 2012Wa38).
 Additional information 1.

Calculations, compilations:

α decay: 1993Bu09.

Ground state properties: 1997Mo25, 1995Mo29.

Single-particle Nilsson levels: 1994Cw02, 2010Ad19, 2008Do12, 2004Pa40.

$Q(\alpha)$, $T_{1/2}$: 2012Sa05, 2011Sa40.

1994Cw02 calculate the following single-particle level sequence: g.s., $1/2[521]$, 0.17 MeV, $7/2[514]$; 0.39 MeV, $7/2[633]$; 0.54 MeV, $9/2[624]$; 0.80 MeV, $3/2[521]$; 0.87 MeV, $1/2[660]$.

 ^{257}Md Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	$(7/2^-)$	5.52 h 5	$\% \varepsilon = 85.3$; $\% \alpha = 15.3$; $\% \text{SF} < 1$ J^π : favored α decay to $(7/2^-)$ level in ^{253}Es suggests configuration= $(\pi 7/2[514])$. $T_{1/2}$: from 1993Mo18. Others: 5.0 h 3 (1971Ho16), 5.4 h 5 (1970Fi12) other: 3.0 h 5 (1965Si14). $\% \varepsilon$ from 1993Mo18, from ingrowth of ^{257}Fm α after mass separation. $\% \alpha$: $\alpha/(\varepsilon + \alpha) \leq 0.26$ (1971Ho16), 0.10 3 (1970Fi12). $\% \text{SF}$: From $T_{1/2}(\text{SF}) \geq 23$ d (1993Mo18), recommended value (2000Ho27). Other values: $T_{1/2}(\text{SF}) > 6.1$ d (1971Ho16); $T_{1/2}(\text{SF}) > 2.9$ d (1965Si14). Calculated, $T_{1/2}(\text{SF}) \approx 3 \times 10^5$ h (1985Lo17).