

Adopted Levels

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

$Q(\beta^-) = -3185$ SY; $S(n) = 7407$ SY; $S(p) = 2932$ SY; $Q(\alpha) = 7573$ 8 [2012Wa38](#)

[2012Wa38](#): Estimated $\Delta Q(\beta^-) = 32$, $\Delta S(n) = 134$, $\Delta S(p) = 32$.

Calculations:

Ground state properties: [1997Mo25](#), [1995Mo29](#), [2004Pa40](#).

Single-particle Nilsson levels: [1994Cw02](#), [2004Pa40](#).

Half-lives for alpha and beta decay: [1997Mo25](#).

[1994Cw02](#) have calculated the following single-particle level sequence: g.s., $1/2[521]$; 0.29 MeV, $7/2[514]$; 0.44 MeV, $7/2[633]$; 0.51 MeV, $9/2[624]$; 0.83 MeV, $3/2[521]$.

 ^{253}Md LevelsCross Reference (XREF) Flags

A ^{257}Lr α decay

B ^{253}No ε decay

E(level)	J^π	$T_{1/2}$	XREF	Comments
0	$(7/2^-)$	6 min $+12-3$	AB	$\% \varepsilon + \% \beta^+ \approx 99.3$; $\% \alpha \approx 0.7$ (2005He27) J^π : configuration= $7/2[514]$ (2011An13) based on ε decay to ^{253}Fm , $\log ft \approx 5.3$. $\% \alpha$: α decay of ^{253}Md not observed following: $\text{Es}(\alpha, xn)$ (1971Ho16); $^{243}\text{Am}(^{13}\text{C}, 3n)$ ion chem (1992Ka08). $T_{1/2}$: 6.45 min $+11.6-3.6$, the disintegration constant determined from the growth of daughter, ^{253}Fm (1992Ka08).
$60^{+30}_{\geq 1000}$			A B	Strong γ rays are observed at 394.2 and 453.5 keV, in coin with Md K x rays and conversion electrons between 40 to 400 keV. The two γ rays are not in mutual coincidence (2011An13).

† From ^{257}Lr α decay.