Adopted Levels

History

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

Q(β^-)=−1963 *16*; S(n)=6681 *SY*; S(p)=3349 *7*; Q(α)=7906 *3* 2012Wa38
Estimated ΔS(n)=100 (2012Wa38).

Calculations, compilations:
α decay: 1992Bu03, 1993Bu09.
Ground state properties: 1997Ch06, 1997Mo25, 2010Ad19.
Single-particle Nilsson levels: 1994Cw02, 2004Pa40.
Q(α), half-lives: 2011Sa40, 2008Do12.

1994Cw02 have calculated the following single-particle level sequence: g.s., 1/2[521], 0.24 MeV, 7/2[514]; 0.43 MeV, 7/2[633]; 0.48 MeV, 9/2[624]; 0.83 MeV, 3/2[521].

^{255}Md Levels

Cross Reference (XREF) Flags

A ^{255}No ε decay
B ^{259}Lr α decay

E(level)	J^π	$T_{1/2}$	XREF	Comments
0	(7/2$^-$)	27 min *2*	AB	%α=7 *1*; %ε=93 *1* Configuration=(π 7/2(514)) J^π: Favored α decay to (7/2$^-$) level in ^{251}Es. $T_{1/2}$: 27 min *2* (1970Fi12), 27 min *3* (1971Ho16). Other: 1965Si14. %α: %α=8 2, from growth of ^{255}Fm daughter; $\alpha/(\alpha+\varepsilon)$=0.07 *1* (1970Fi12), 0.100 *14* (1971Ho16), 0.100 *+25−17* (1965Si14). %ε: From K x ray intensity and decay scheme (2000Ah02). SF looked for but not detected, %SF<0.15 (1971Ho16,2000Ho27). Calculated $T_{1/2}$(SF)≈5×10^7 min (1985Lo17).
12 *SY*	(1/2$^-$)		AB	E(level): from ^{259}Lr α decay; estimated ΔE=71 keV. J^π: favored α decay from ^{259}Lr indicates same configuration as parent; α decay does not populate the g.s., which suggests a low J for this level, perhaps 1/2$^-$. The Nilsson model suggests configuration=(π 1/2[521]) for Z=103.