

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 195,718 (2024)	12-Oct-2023

$Q(\beta^-)=-4610$ syst; $S(n)=7840$ syst; $S(p)=2.01\times 10^3$ 16; $Q(\alpha)=8441$ syst 2021Wa16
 $\Delta Q(\beta^-)=320$, $\Delta S(n)=250$, $\Delta Q(\alpha)=18$ (syst,2021Wa16).
 $S(2n)=14900$ 270 (syst), $S(2p)=5980$ 170 (2021Wa16).

 ^{249}Md LevelsCross Reference (XREF) Flags

- A ^{253}Lr α decay (1.61 s)
- B ^{253}Lr α decay (0.63 s)
- C $^{203}\text{Tl}(^{48}\text{Ca},2n\gamma)$

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	(7/2 ⁻)	24.8 s 10	ABC	$\% \alpha = 75$ 5; $\% \varepsilon + \% \beta^+ < 25$; $\% \text{SF} = ?$ $\% \alpha$: From counting of α decays of ^{249}Md and its ε/β^+ -decay daughter ^{249}Fm , with $\% \alpha(^{249}\text{Fm})=16$ 1 $T_{1/2}(^{249}\text{Fm})=2.6$ min 7 (see Adopted Levels for ^{249}Fm). Others: From α - α correlations $\% \alpha > 60$ (1985He22). $T_{1/2}$: From weighted average of 26 s 1 (2019Br06), 23 s 3 (2009He20), 23.8 s +38-29 (2008Ga25), 19 s +3-2 (2001He35,2005KuZZ), 25 s +14-7 (1985He22), and 24 s 4 (1973Es01). J^π : From 7/2 ⁻ [514] configuration assigned in the ^{253}Lr α decay (2022Hu21,2009He20,2005KuZZ), systematics with neighboring Md odd isotopes; ^{247}Md , ^{251}Md , ^{253}Md and quasiparticle-phonon model calculation (2013Sh45). Configuration=7/2 ⁻ [514] (2022Hu21).
0.0+x	(1/2 ⁻)	1.5 s +12-5	A	$\% \alpha = ?$ J^π : From 1/2 ⁻ [521] configuration assigned in the ^{253}Lr α decay (2009He20,2005KuZZ), systematics with neighboring Md odd isotopes; ^{247}Md , ^{251}Md , ^{253}Md and quasiparticle-phonon model calculation (2013Sh45). Configuration=1/2 ⁻ [521] (2022Hu21). $T_{1/2}$: From 2001He35.
127 24	(11/2 ⁻)		B	J^π : From similarity with the 8420-keV line in ^{255}Lr depopulating the 7/2 ⁻ level and feeding the 11/2 ⁻ rotational state at ≈ 135 keV in ^{251}Md (2006Ch52).
≥ 910	(19/2 ⁻)	2.8 ms 5	C	$T_{1/2}$: From time distribution of recoil-electron correlation (2021Go26). J^π : From configuration. Configuration= $\pi 7/2^- [514] \otimes 5/2^+ [622] \otimes 7/2^+ [624]$ (2021Go26).