

Adopted Levels

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

$Q(\beta^-) = -486$ SY; $S(n) = 6134$ SY; $S(p) = 4090$ SY; $Q(\alpha) = 7110$ SY [2012Wa38](#)
 Estimated $\Delta Q(\beta^-) = 224$, $\Delta S(n) = 200$, $\Delta S(p) = 283$, $\Delta Q(\alpha) = 200$ ([2012Wa38](#)).

[Additional information 1.](#)

Calculations, compilations:

Ground state properties: [2008Do12](#), [2001Mo07](#), [1997Mo25](#), [1995Mo29](#).

Pion decay: [1988Io05](#), [1986Io02](#).

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

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

Binding Energy: [2008Do12](#).

Spontaneous Fission Half-life: [2004Ro01](#), [2000Ho27](#).

Fission Fragments Mass Distribution: [2002Zh55](#), [2001Ng04](#).

[1994Cw02](#) calculate the following single-particle Nilsson level sequence: g.s., 1/2[521]; 0.02 MeV, 7/2[514]; 0.27 MeV, 7/2[633]; 0.47 MeV 9/2[624], 0.69 MeV, 3/2[521]; 0.80 MeV, 1/2[660].

Assignment: daughter of ²⁵⁹No (No, Md chem) ([1982Wi08](#)). ²⁵⁴Es+²²Ne E=126 MeV, ²⁵⁴Es+180 E=105 MeV; ms, ion chem. ([1993Mo18](#)).

Mass and kinetic energy distribution in SF ([1989Hu09](#), supersedes [1982Wi08](#)).

Measured prompt γ 's accompanying SF ([1990SoZY](#)).

²⁵⁹Md Levels

Cross Reference (XREF) Flags

A ²⁵⁹No ϵ decay

E(level)	T _{1/2}	XREF	Comments
0	1.60 h 6		%SF \approx 100; % α <1.3 T _{1/2} : from 1993Mo18 . Other: 1.72 h 20 (1982Wi08). Other: 2000Ho27 . J ^{π} : from calculations of 1994Cw02 the two low-lying Nilsson levels are 1/2[521] and 7/2[514]. ²⁵⁹ Md is fed by ²⁵⁹ No ϵ decay, but since the g.s. spin of ²⁵⁹ No is not known and since it may not necessarily feed the g.s. of ²⁵⁹ Md directly, it is not possible to choose between the options on the basis of experimental results. %SF: number of SF events observed from initially pure ²⁵⁹ No source is consistent with about 100% SF activity of its ϵ daughter (1982Wi08). % α : from 1993Mo18 . Other: % α <3 (1982Wi08); no α particles attributable to ²⁵⁹ Md observed with 6.5 MeV<E α <7.0 MeV (1993Mo18 , 1982Wi08). Calculated T _{1/2} (α)=2.0 h (1997Mo25).
0.0+x		A	