

Adopted Levels

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

$Q(\beta^-) = -1742$ SY; $S(n) = 5439$ SY; $S(p) = 4866$ SY; $Q(\alpha) = 7885$ SY [2012Wa38](#)
 Estimated $\Delta Q(\beta^-) = 123$, $\Delta S(n) = 142$, $\Delta S(p) = 100$, $\Delta Q(\alpha) = 100$ ([2012Wa38](#)).

[Additional information 1.](#)

Calculations, compilations:

Favored α decay: [1993Bu09](#).

Ground state properties: [2009Sa25](#), [2008Do12](#), [2008Ro06](#), [2007Zh41](#), [2002Go24](#), [2001Re13](#), [1997Mo25](#), [1995Mo29](#).

Heavy ion emission: [1985Po11](#).

Single-particle Nilsson levels: [2005Pa73](#), [1994Cw02](#).

Ground state half-life: [2010Si27](#), [2009Sa25](#), [2008Do12](#), [2008Ro06](#), [2008Ro06](#), [2007Zh41](#), [2002Gu24](#), [2001Re13](#), [2000Ho27](#).

Nuclear Reactions:

²⁴⁶Cm(⁴⁸Ca,X): E=205.5 MeV ([2005Ad08](#)).

[1994Cw02](#) calculate the following single-particle level sequence: g.s. 11/2[725], 0.01 MeV 3/2[622], 0.07 MeV 1/2[620], 0.15 MeV 9/2[615], 0.95 MeV 7/2[613].

Assignment: ²⁴⁸Cm(¹⁸O, α 3n), ion chem, parent of ²⁵⁵Fm ([1973Si40](#)); ²⁴⁸Cm(¹⁸O, α 3n), chem, parent of ²⁵⁹Md ([1982Wi08](#)).

²⁵⁹No Levels

E(level)	J ^{π}	T _{1/2}	Comments
0	(9/2 ⁺)	58 min 5	$\% \alpha = 75$ 4; $\% \epsilon + \% \beta^+ = 25$ 4; $\% SF < 10$ J ^{π} : from analogy with ²⁵⁷ Fm (only N=157 nucleus with J ^{π} assignment suggested by experimental results) configuration=(ν 9/2[615]). However, according to calculations in 1994Cw02 (see above), other assignments are possible. T _{1/2} : from 1973Si40 ; other: 59 min 13 (1982Wi08). $\% \epsilon + \% \beta^+$, $\% SF$: from 1982Wi08 (from number of SF events (²⁵⁹ Md SF) per ²⁵⁹ No decay). Estimate of $\% SF = 1$ 9 from growth and decay curves (1982Wi08 , 2000Ho27). See 2008AsZY for γ rays emitted following α decay of ²⁵⁹ No.