

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Agda Artna-cohen	NDS 88,155 (1999)	31-Jul-1999

$Q(\beta^-) = -4.3 \times 10^3$ syst; $S(n) = 6.25 \times 10^3$ syst; $S(p) = 3.36 \times 10^3$ syst; $Q(\alpha) = 9.40 \times 10^3$ 6 [2012Wa38](#)

Note: Current evaluation has used the following Q record \$ -4500 syst 6400 syst 3410 syst 9390 syst [1995Au04](#).

Estimated $\Delta Q(\beta^-) = 400$, $\Delta S(n) = 300$, $\Delta S(p) = 220$, $\Delta Q(\alpha) = 100$ ([1995Au04](#)).

Calculations, compilations:

g.s. properties: [1997Mo25](#), [1995Mo29](#).

Favored α decay: [1993Bu09](#).

Pion emission: [1991Io03](#).

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

[1994Cw02](#) calculate the following single-particle level sequence: g.s. 7/2[613], 0.00 MeV 11/2[725], 0.01 MeV 3/2[622], 0.03 MeV 1/2[620], 0.12 MeV 9/2[615].

Assignment: ²⁴⁹Cf(¹⁸O,4n), parent of ²⁵⁹Rf, grandparent of ²⁵⁵No, α - α - α correlation ([1974Gh04](#),[1994Gr08](#)) ²⁴⁹Cf(¹⁸O,4n), excit, observed SF ([1979Dr07](#)) ²³⁸U(³⁴S,5n)²⁶⁷Hs α , daughter of ²⁶⁷Hs from α - α correlation ([1995Og02](#)).

²⁶³Sg Levels

Cross Reference (XREF) Flags

A ²⁶⁷Hs α decay

E(level)	T _{1/2}	XREF	Comments
0.0	1.0 s 2		% $\alpha > 70$; %SF < 30 (1995La20) T _{1/2} : from 1.1 s +28-6 (1994Gr08), 0.9 s 2 (1974Gh04). % α : only α decay observed (1974Gh04). %SF: < 30, no SF detected following ²⁶⁷ Hs α decay (1995La20). T _{1/2} (SF) = 0.64 s +32-18 from analysis of fragment tracks, %SF \approx 70 from cross section comparisons (1979Dr07). Calculated: T _{1/2} (α) = 2 s, T _{1/2} ($\epsilon + \beta^+$) = 60 s, T _{1/2} (SF) = 20 s, deduced from Q values (1995KoZL); T _{1/2} (α) \approx 0.1 s (1990Ha26); T _{1/2} (SF) \approx 400 s, T _{1/2} (α) \approx 30 s (1988Lo03). E(level): x=90 90 from Q(α)(²⁶⁷ Hs) = 10110 70 (systematics, 1995Au04) and E α .
0.0+x 130+x 0.0+y	0.12 s	A A	% α = ?; %IT = ? Reported as a member of α chain from ²⁷¹ 110 (1997Ho03 , 1997Ho13). 1997Au04 cites T _{1/2} = 0.36 s 13 from an earlier report by same authors. Parent of 1.7 s E α = 8.88 MeV ²⁵⁹ Rf (1997Ho03 , 1997Ho13).