

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	A. M. Mattera, S. Zhu, A. B. Hayes, E. A. Mccutchan		NDS 172, 543 (2021)	1-Jan-2021

$Q(\beta^-) = -3695$ SY; $S(n) = 7210$ I6; $S(p) = 4986$ 8; $Q(\alpha) = 7152.7$ 20 [2017Wa10](#)
 $\Delta Q(\beta^-) = 130$ ([2017Wa10](#)).
 $S(2n) = 13399$ I0; $S(2p) = 8933$ 6 ([2017Wa10](#)).

 ^{252}Fm LevelsCross Reference (XREF) Flags

[A](#) ^{256}No α decay

E(level)	J $^\pi$	T $_{1/2}$	XREF	Comments
0.0 [†]	0 ⁺	25.39 h 4	A	$\% \alpha = 99.9977$ 2; $\% \text{SF} = 0.0023$ 2 $\% \alpha, \% \text{SF}$: the branching ratio was measured by counting α and fission in a 2π proportional counter (1984Ah02). T $_{1/2}$: measured by 1984Ah02 . Other measurements: 22.7 h 7 (1956Fr07), 23.0 h I3 (1967Ch17). T $_{1/2}(\text{SF}) = 115$ y 60, measured by 1966Rg04 , gives $\% \text{SF} = 0.0025$ I3. T $_{1/2}(\text{SF}) = 125$ y 8 was calculated from $\text{SF}/\alpha = 0.0023\%$ 2 (1984Ah02) and the total half-life of 25.39 h 4 (1984Ah02).
42.1 [†] I3	2 ⁺		A	J $^\pi$: from systematics of even-even nuclei.

[†] Band(A): K=0⁺ g.s. band.

Adopted Levels

Band(A): K=0⁺ g.s. band

2⁺ 42.1

0⁺ 0.0

$^{252}_{100}\text{Fm}_{152}$