$^{255}\text{Es}\,\beta^{-}\,\,\text{decay}$ 1987Po22

History

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Full Evaluation E. Browne, J. K. Tuli NDS 114, 1041 (2013) 1-Nov-2011

Parent: ²⁵⁵Es: E=0; $J^{\pi}=(7/2^{+})$; $T_{1/2}=39.8$ d 12; $Q(\beta^{-})=290$ 10; $\%\beta^{-}$ decay=92.0 4

Additional information 1.

1987Po22: Cf(n, γ); Es ion chem; measured γ , Ge(Li) detector.

Three γ -ray transitions with E γ =21.8 (L x ray), 60, 120 (K x ray) were found to decay with $T_{1/2}$ =38 d (1987Po22). The origin of the K x ray, however, is unclear, since evaluators have noticed that no γ rays were seen with energy above the Fm K-binding energy of 143.1 keV.

²⁵⁵Fm Levels

E(level) J^{π} Comments

0 $7/2^+$ J^{π} : From Adopted Levels.
60? $(9/2^+)$

 β^- radiations

E(decay) E(level) $I\beta^{-\dagger}$ Log ft Comments

(230 ‡ 10) 60?

(290 10) 0 \leq 100 \geq 7.3 av E β =80 3

 $\gamma(^{255}\text{Fm})$

$$\frac{\text{E}_{\gamma}}{60^{\dagger}}$$
 $\frac{\text{E}_{i}(\text{level})}{60?}$ $\frac{\text{J}_{i}^{\pi}}{(9/2^{+})}$ $\frac{\text{E}_{f}}{0}$ $\frac{\text{J}_{f}^{\pi}}{7/2^{+}}$

[†] For absolute intensity per 100 decays, multiply by 0.920 4.

[‡] Existence of this branch is questionable.

[†] Placement of transition in the level scheme is uncertain.

 $^{^{}x}$ γ ray not placed in level scheme.

²⁵⁵Es β decay 1987Po22

Decay Scheme

Legend

