258Md ε decay (57.0 min) 1993Mo18

Type Author Citation Literature Cutoff Date

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Literature Cutoff Date
25-Aug-2017

Parent: ²⁵⁸Md: E=0+x; J^{π} =(1⁻); $T_{1/2}$ =57.0 min 9; $Q(\varepsilon)$ =1260 SY; $\%\varepsilon + \%\beta^+$ decay=85 15

 $^{258}\text{Md-J}^{\pi}$, $T_{1/2}$: From ^{258}Md Adopted Levels.

²⁵⁸Md-Q(ε): 1260 200 (syst,2017Wa10).

²⁵⁸Md-% ε +% β ⁺ decay: % ε >70 (or % ε =85 15) (1993Mo18) for ²⁵⁸Md decay of 57.0-min activity.

1993Mo18: the ε decay mode of the 57.0-min 258 Md isomer was deduced from observation of fermium K x-rays to precede the 258 Fm SF decay. No γ transitions in 258 Md ε decay have been identified, thus the decay scheme is unknown.

If $J^{\pi}(57.0 \text{ min } ^{258}\text{Md})=1^-$, the 0⁺ and 2⁺ states of ^{258}Fm g.s. band are expected to be populated with about the same intensity; if $J^{\pi}=0^-$ (or 2⁻), a first-forbidden unique β transition to 2⁺ (or to 0⁺) should be weaker.

Additional information 1.

²⁵⁸Fm Levels

E(level) J^{π} Comments 0^+ Assumed that the g.s. is populated in this decay.