^{259}Rf ε decay 2008Ga08

History

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

Parent: ^{259}Rf: E=0; $T_{1/2}$=2.5 s *4*; Q(ε)=2509 *SY*; $\%\varepsilon+\%\beta^+$ decay=15 *4*

^{259}Rf-Q(ε): 2509 *101* (syst,2011AuZZ).

^{259}Rf-E: the ε decay mode is not observed in other studies when ^{259}Rf (presumably the g.s.) is populated in the α decay of ^{263}Sg. This possibility is given (2008Ga08) assuming the population of an isomer in ^{259}Rf when directly formed in a reaction.

^{259}Rf-$T_{1/2}$: from 27 EVR-α correlations where random correlation was expected to be≤1 (2008Ga08).

^{259}Rf-$\%\varepsilon+\%\beta^+$ decay: $\%\varepsilon+\%\beta^+$=15 *4* (2008Ga08) determined from three EVR-α correlated events and five EVR-SF correlated events as listed in table III of 2008Ga08.

Additional information 1.

^{259}Rf produced in ^{238}U(^{26}Mg^{6+},5n) reaction at E=4.9-6.0 MeV/nucleon; $^{238}UF_4$ rotating target at 88-Inch cyclotron facility at LBNL and with Berkeley gas-filled recoil separator (BGS) of the LBNL. Evaporation residues (EVR) recoiling from the target were separated by the BGS from the beam and other reaction products on the basis of magnetic rigidities in He gas. Measured (evaporation residues)α and (evaporation residues)$\alpha\alpha$ correlations, α decay, SF decay, half-life, excitation functions.

^{259}Lr Levels

E(level)
0