^{242}Bk $\varepsilon+\beta^+$ decay

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin, C. D. Nesaraja	NDS 186,261 (2022)	31-Dec-2021

Parent: ^{242}Bk: E=0.0; $T_{1/2}$=7.0 min *13*; Q(ε)=2950 *syst*; %ε+%β^+ decay=99.5 *5*

^{242}Bk-Q(ε): 2950 *140* (2021Wa16).

The $\varepsilon+\beta^+$ decay mode of ^{242}Bk was established by 1979Wi03 from observation of curium Kα_1 x ray, Kα_2 x ray. No γ rays were identified due to intense background.

Probability of delayed fission following $\varepsilon+\beta^+$ decay of ^{242}Bk was studied by 1980Ga07 by measuring the ratio of SF counts to α counts from ^{242}Cm g.s. An upper limit of 3×10^{-7} for the delayed-fission probability was deduced.