^{252}Cf SF decay 2020Or03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 195,1 (2024)	19-Sep-2023

Parent: ^{252}Cf: E=0; $J^{\pi}=0^{+}$; $T_{1/2}$=2.645 y *8*; %SF decay=?

2020Or03 compiled for XUNDL database by E.A. McCutchan (NNDC,BNL).

2020Or03: ^{162}Tb produced from CARIBU source facility consisting of ≈1 Ci ^{252}Cf inside large volume gas catcher. Ions extracted in charge state 2^{+}, mass separated, and collected in an rf quadrupole cooler/buncher. Beam purification using multireflection time-of-flight mass separator (δ-tof). Measured cyclotron frequencies using Canadian Penning Trap (CPT) with phase-imaging ion-cyclotron-resonance (PI-ICR) technique. Deduced masses and excitation energies of isomers.

^{162}Tb Levels

E(level)	J^{π}	Comments
0.0	(1^{-})	J^{π}: proposed by 2020Or03 based on assigned configuration π3/2[411]ν5/2[523] and Gallagher-Moszkowski rule.
285.5 *32*	(4^{-})	E(level): deduced from measured mass excess using PI-ICR technique (2020Or03). J^{π}: proposed by 2020Or03 based on assigned configuration π3/2[411]ν5/2[523] and Gallagher-Moszkowski rule.