^{166}Pt α decay (0.3 ms) 1996Bi07

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

Parent: ^{166}Pt: E=0.0; $J^{\pi}=0^{+}$; $T_{1/2}$=0.3 ms *1*; Q(α)=7292 *7*; %α decay=?

Additional information 1.

All data are from the decay study of 1996Bi07, unless noted otherwise.

^{166}Pt produced in the ^{92}Mo(^{78}Kr,4n) reaction, with E(^{78}Kr)=348 MeV. Enriched (>97% ^{92}Mo) metal-foil target of thickness 0.565 mg/cm^2. The recoil products were separated according to their mass-to-charge ratio in the Fragment Mass Analyzer at the ATLAS accelerator facility. After passing through a thin position-sensitive parallel-grid avalanche counter, located at the focal plane of the analyzer, the recoils were implanted in a double-sided silicon-strip detector. Both position and time correlations between the recoil nuclei and their decay products were studied. Measured $T_{1/2}$ and Eα.

^{162}Os Levels

E(level)	J^{π}	$T_{1/2}$	Comments
0.0	0^{+}	2.06 ms *9*	$T_{1/2}$: from adopted values.

α radiations

Eα	E(level)	Iα	HF[†]
7110 *15*	0.0	100	1.000

[†] The nuclear radius parameter r_0(^{162}Os)=1.548 *19* is deduced by assuming HF=1.0 for the ground-state to ground-state alpha decay branch.