^{186}Pt α decay (2.08 h) 1963Gr08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	11-Jul-2022

Parent: ^{186}Pt: E=0.0; $J^{\pi}=0^+$; $T_{1/2}$=2.08 h *5*; Q(α)=4320 *18*; %α decay=1.8×10^{-4} *10*

^{186}Pt-$T_{1/2}$: From weighted average of 2.10 h *5* (1991Be25), 2.0 h *1* (1972Fi12) and 2.0 h *2* (1963Gr08). Other: 2.10 h *5* in ^{186}Pt Adopted Levels in the ENSDF database (March 2022 update), value taken from 1991Be25.

^{186}Pt-Q(α): From 2012Wa38.

^{186}Pt-%α decay: %α=0.00018 *10* (evaluator), from maximum value of 0.00028% and minimum value of 0.00007, based on measured (or estimated) value of %α=≈1.4×10^{-4} (1963Gr08), with authors′ statement that the branching was correct within a factor of 2. Other: ≈0.00014% in ^{186}Pt Adopted Levels in the ENSDF database (March 2022 update), value taken from 1963Gr08.

%α≈0.00014% was deduced by 1963Gr08 by assuming that neighboring mass nuclei were produced in equal quantities. The branching was estimated by 1963Gr08 to be correct within a factor of 2.

HF: r_0=1.536 *30* (2020Si16) deduced from r_0=1.518, r_0=1.574 and r_0=1.485 for %α=0.00014, %α=0.00028 and %α=0.00007, respectively, and using 94% *6* branching for the intensity of the 4230α transition form g.s. to g.s.

^{182}Os Levels

E(level)	J^{π}
0.0	0^+

α radiations

Eα	E(level)	HF	Comments
4230 *20*	0.0	1.0	Eα: the α energy was measured by 1963Gr08. Iα: only one α group has been observed. α intensities are calculated as Iα(to g.s.)>88.7, Iα(to 2^+)<11.3 per 100 α decays by requiring that the hindrance factor for an unobserved 4103-keV α to the 2^+, 127.0 level is greater than 1. Iα(4230α)=94 *6* per 100 α decays is used in computations.