^{183}Pt α decay (6.5 min) 1966Si08,1995Bi01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 110, 265 (2009)	15-Nov-2008

Parent: ^{183}Pt: E=0.0; $J^\pi=1/2^-$; $T_{1/2}$=6.5 min *10*; Q(α)=4823 *9*; %α decay=0.0096 *5*

^{183}Pt-%α decay: From 1995Bi01; based on comparison of Iα with intensity of ^{183}Pt $\varepsilon+\beta^+$ decay, taking into account the 43 s component of that decay. other data: %$\alpha\approx1.3\times10^{-3}$ (1963Gr08), derived from relative cross sections for production in various reactions, is presumed to be accurate within a factor of 3; however, 1995Bi01 suggest that authors might not have allowed for the possibility that some of their observed $\varepsilon+\beta^+$ intensity could have arisen from decay of the 43 s ^{183}Pt isomer. 1995Bi01 would have obtained a similar result had they assumed that their observed $\varepsilon+\beta^+$ intensity arose from ^{183}Pt(g.s.) ε decay alone.

Others: 1963Gr08.

$T_{1/2}$(183PT)=6.5 min *10* from 1963Gr08. other : 7.0 min *25* (1966Si08).

1995Bi01: source from 165 MeV ^{19}F bombardment of Yb, mass separation; Ge(Li), Si(Li) and Si(Au) surface barrier detectors; measured Eα, Iα, I(x ray).

^{179}Os Levels

E(level)	J^π	Comments
0.0	$1/2^-$	J^π: from Adopted Levels.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
4719 *9*	0.0	100	1.24 *23*	Eα: weighted average of 4714 *10* (1995Bi01), 4730 *20* (1966Si08) and 4740 *30* (1963Gr08).

[†] For $r_0(^{179}Os)$=1.537 *20* (weighted average of $r_0(^{178}Os)$=1.538 *25* and $r_0(^{180}Os)$=1.536 *31* (1998Ak04)), %α=0.0096 *5* (1995Bi01), Q(α)=4824 *9* from Eα=4719 *9* (Q(α)=4823 *9* In 2003Au03).

[‡] For absolute intensity per 100 decays, multiply by 9.6×10^{-5} *5*.