## $^{182}$Pt $\alpha$ decay 1966Si08

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | E. Achterberg, O. A. Capurro, G. V. Marti | NDS 110, 1473 (2009) | 31-May-2008 |

Parent: $^{182}$Pt: E=0.0; $J^\pi=0^+$; $T_{1/2}$=2.2 min *1*; Q($\alpha$)=4952 *5*; %$\alpha$ decay=0.038 *2*

$^{182}$Pt-$T_{1/2}$ from 1972Fi12, other: 3.0 min *2* (1966Si08), 2.5 min *5* (1963Gr08); Q($\alpha$) from 2003Au03; branching from 1995Bi01, other: %$\alpha$=0.023 *+23−12* (1966Si08).

### $^{178}$Os Levels

| E(level) | $J^\pi$ |
|---|---|
| 0.0 | $0^+$ |

### $\alpha$ radiations

| E$\alpha$ | E(level) | I$\alpha$[†] | HF | Comments |
|---|---|---|---|---|
| 4843 *5* | 0.0 | 91 *9* | 1.0 | E$\alpha$: from 1995Bi01. Other: 4820 *30* (1963Gr08), 4840 *20* (1966Si08).<br>I$\alpha$: only one $\alpha$ group at 4843 keV was observed. Intensity of an $\alpha$ to the $2^+$ state at 131.6 keV is expected to be less than 17% of the $\alpha$ decay; intensity of an $\alpha$ to the second $0^+$ state at 650.4 keV should be less than 0.002% of the $\alpha$ decay. These I$\alpha$ values are estimated by requiring their HF to be greater than 1.<br>HF: $r_0(^{178}Os)$=1.563 *7* is deduced from HF(4843$\alpha$)=1.0, using the adopted value I$\alpha$(4843$\alpha$)=91 *9* per 100 $\alpha$ decays in the calculations. |

[†] For absolute intensity per 100 decays, multiply by 0.00038 *2*.