

^{188}Hg α decay [1993ToZY,1979Ha10](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Parent: ^{188}Hg : $E=0.0$; $J^\pi=0^+$; $T_{1/2}=3.25$ min 15; $Q(\alpha)=4705$ 17; $\% \alpha$ decay= 3.7×10^{-5} 8

$T_{1/2}(^{188}\text{Hg})=3.25$ min 15, measured by [1972Fi12](#), is the adopted half-life in [2002Si10](#) and used for the calculations here. Other measurement: 3.7 min ([1960Po07,1960Al20](#)).

$\% \alpha=3.7 \times 10^{-5} \% 8$ is from [1979Ha10](#). other: $4.2 \times 10^{-5} \%$, preliminary value from [1993ToZY](#).

$Q(\alpha)(^{188}\text{Hg})=4710$ 20 is calculated from the measured α energy of 4610 20; this $Q(\alpha)$ value is recommended by [2003Au03](#) and [2009AuZZ](#).

 ^{184}Pt Levels

E(level)	J^π
0.0	0^+

 α radiations

E_α	E(level)	I_α^\ddagger	HF^\dagger	Comments
4610 20	0.0	96 4	1.0	E_α : measurement of 1979Ha10 . I_α : only one α group has been observed. Upper limit on intensity of an unobserved 4450-keV α transition to the 2^+ state at 162.98 keV is calculated to be <8.3 per 100 α decays by assuming its hindrance to be greater than 1. Possible α decays to higher levels are not expected to change drastically the deduced intensity of $I_\alpha(4610\alpha$ to g.s.)= $96 4$.

$^\dagger r_0(^{184}\text{Pt})=1.481$ 16 is calculated by requiring $\text{Hf}(4610\alpha)=1.0$. $I_\alpha(4610\alpha)=96 4$ (>92) per 100 α decays is used in computation.

‡ For absolute intensity per 100 decays, multiply by 3.7×10^{-7} 8.