
 ^{202}Pb ε decay (52.5×10^3 y) [1954Hu61,1981Na15](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Zhu and F. G. Kondev		NDS 109, 699 (2008)	1-May-2007

Parent: ^{202}Pb : $E=0$; $J^\pi=0^+$; $T_{1/2}=52.5 \times 10^3$ y 28; $Q(\varepsilon)=50$ 15; % ε decay=100.0

[1954Hu61](#): ^{202}Pb sample was produced using the $^{203}\text{Tl}(d,3n)$ reaction. $E(d)=21$ MeV. Pb chemically separated, ^{202}Pb separated by mass spectrometer. Measured (^{202}Hg L x ray)/(^{202}Tl L x ray)=1.6, (Tl K x ray)/(Hg K x ray)<0.005. $T_{1/2}(^{202}\text{Pb})$ $T_{1/2}(^{202}\text{Pb})=3 \times 10^5$ y estimated by the authors.

[1981Na15](#): ^{202}Pb sample was produced by $^{nat}\text{Tl}(p,xn)$. $E(p)=52$ MeV. Pb chemically separated, ^{202}Pb separated by mass spectrometer. $T_{1/2}(^{202}\text{Pb})=52.5 \times 10^3$ y 28 was obtained from measuring the ^{202}Pb activity of sample with known number of ^{202}Pb atoms.

 ^{202}Tl Levels

$E(\text{level})^\dagger$	J^π^\dagger	$T_{1/2}^\dagger$
0	2^-	12.31 d 8

† From Adopted Levels.

 ε radiations

$E(\text{decay})$	$E(\text{level})$	I_ε^\dagger	$\text{Log } ft$	Comments
(50 15)	0	100	9.2 ^{1u} 4	$\varepsilon\text{L}=0.60$ 7; $\varepsilon\text{M}+=0.40$ 7

† Absolute intensity per 100 decays.