## $^{202}$Pb ε decay ($5.25\times10^4$ y) 1954Hu61,1981Na15

| History | | | |
|---|---|---|---|
| Type | Author | Citation | Literature Cutoff Date |
| Full Evaluation | F. G. Kondev | NDS 196,342 (2024) | 1-Sep-2023 |

Parent: $^{202}$Pb: E=0.0; $J^\pi=0^+$; $T_{1/2}=5.25\times10^4$ y *28*; Q(ε)=40 *4*; %ε decay=100

1954Hu61: $^{202}$Pb sample was produced using the $^{203}$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. $T_{1/2}(^{202}Pb)=3\times10^5$ y was estimated by the authors.

1981Na15: $^{202}$Pb sample was produced by $^{nat}$Tl(p,xn), E(p)=52 MeV and following chemical separation. An ionization type mass spectrometer was used to determine the $^{202}$Pb atoms, while a Ge(Li) detector was used to measure the $^{202}$Pb disintegration rate. Deduced: $^{202}$Pb half-life.

### $^{202}$Tl Levels

| E(level)† | $J^\pi$† | $T_{1/2}$† |
|---|---|---|
| 0.0 | $2^-$ | 12.4706 d *55* |

† From Adopted Levels.

### ε radiations

| E(decay) | E(level) | Iε† | Log *ft* | Comments |
|---|---|---|---|---|
| (40 *4*) | 0.0 | 100 | $8.95^{1u}$ *13* | εL=0.560 *23*; εM+=0.440 *23* |

† Absolute intensity per 100 decays.