
Adopted Levels

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

$S(p)=4.0\times 10^2$ 4; $Q(\alpha)=7790$ 15 [2012Wa38](#)

Note: Current evaluation has used the following Q record 390 30 7790 14 [2003Au03](#).

$Q(\beta^+)=8320$ 120 keV ([2003Au03](#)).

^{178}Pb activity produced by $^{102}\text{Pd}(^{78}\text{Kr},2n)$, $E(\text{lab})=355$ MeV (340 MeV at mid-target). Reaction product separation in the Berkeley gas-filled separator, implantation in position-sensitive Si strip detector. Identification by position and α decay correlations with α rays from previously known daughter nuclides ([2001RoZW](#)).

Theory references: [1996Sh20](#), [1994Yo05](#), [1993Na05](#), [1991Ba04](#), [1977ToZM](#).

 ^{178}Pb Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+	0.12 ms +22-5	$\% \alpha \approx 100$ $T_{1/2}$: From 2001RoZW . The authors report two α decays at 202 and 147 μs after implantation. The source for their reported error limits is unclear. From these two values the evaluators derive an estimated half-life of $T_{1/2}=120$ 30 μs . $\% \alpha \approx 100$ (2003Au02). The ^{178}Pb g.s. decays by an 7615 14 keV α transition to the ^{174}Hg g.s. (2001RoZW).