¹²⁴Pd IT decay (>20 μ s) 2012Ka36

History						
Туре	Author	Citation	Literature Cutoff Date			
Full Evaluation	Balraj Singh	ENSDF	15-Jan-2014			

Parent: ¹²⁴Pd: E=62.2+x 17; T_{1/2}>20 µs; %IT decay=100.0

¹²⁴Pd-%IT decay: %IT decay mode assumed to be 100%.

2012Ka36: ²³⁸U beam at E=345 MeV/nucleon provided by the RIBF accelerator complex at RIKEN facility, and incident on a ⁹Be target. Fission fragments were separated and analyzed by BigRIPS separator, transported to focal plane of ZeroDegree spectrometer and finally implanted in an aluminum stopper. Particle identification was achieved by Δ E-tof-B ρ method. Delayed gamma rays from microsecond isomer were detected by three clover-type HPGe detectors. Measured E γ , isomer half-life. Details of the decay scheme are unknown.

¹²⁴Pd Levels

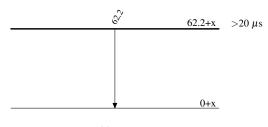
E(level)	T _{1/2}	Comments		
0+x 62.2+x <i>17</i>	>20 µs	Number of implanted fragments= 3.8×10^4 . E(level): energy of 62.2 keV for the isomer stated in 2012Au07 seems too low in view of first 2 ⁺ state in ¹²⁴ Pd at 590 keV. Absolute energy of this isomer was not measured in 2012Ka36. T _{1/2} : from γ (t) method; estimated because γ -ray events were equally distributed in the 20- μ s range of the time spectrum (2012Ka36).		
		$\underline{\gamma(^{124}\mathrm{Pd})}$		
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Eγ	E_i (level)	E_f	Comments
62.2 17	62.2+x	0+x	E_{γ} : statistical uncertainty=1.6 keV and systematic uncertainty=0.5 keV combined in quadrature.

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Decay Scheme

%IT=100.0



 $^{124}_{46}\text{Pd}_{78}$