¹⁷⁸Pt ε decay **1993Me13**

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

Parent: ¹⁷⁸Pt: E=0.0; $J^{\pi}=0^+$; $T_{1/2}=21.1$ s 6; $Q(\varepsilon)=4254$ 23; $\%\varepsilon+\%\beta^+$ decay=92.3 3

 $^{178}\text{Pt-T}_{1/2},$ branching, are adopted values from 2003Au02. Q($\beta)$ from 2003Au03.

¹⁷⁸Pt activity produced by ¹⁴⁶Nd(³⁶Ar,4n) and ¹⁴⁸Nd(³⁶Ar,6n), E=173-201 MeV, using highly enriched targets. ¹⁷⁸Pt was identified by excitation functions and coincidences with daughter Ir K-x rays. Measured E γ , I γ , $\gamma\gamma$ coin.

¹⁷⁸Ir Levels

 γ ray energies, relative intensities and coincidence data are from 1993Me13.

E(level)	Comments
0.0	
55.0	E(level): This level seen also in ¹⁸² Au α decay (1995Bi01), with E(lev)=54.4 keV.
91.7?	This level suggested in 1993Me13 on the basis of the observed coincidences of the 36.9 and 55.0 keV γ rays, and the
127?	agreement of the energy sum with the energy of the probable cross-over 91.7 keV γ ray. a similar level is suggested from α decay studies in 1995Bi01, who quote an E(lev)=123 7 keV, deduced from their α -ray energy differences.

$\gamma(^{178}\text{Ir})$

Eγ	Iγ	E _i (level)	E_f	Comments
36.9 [‡]	43 2	91.7?	55.0	
55.0	39 <i>2</i>	55.0	0.0	E_{γ} : 1995Bi01 quote a 54.4 keV γ ray following ¹⁸² Au α decay.
^x 84.6	100			
x88 [†]				γ ray seen only in doubtful coincidences with the 90.4 keV γ ray.
^x 90.4	80 <i>6</i>			
91.7 [‡]	54 4	91.7?	0.0	
^x 101 [†]				from coincidence results where a 101 keV γ ray is seen in spectra gated by the 101.3-keV transition.
^x 101.3	76 4			
127 ^{†‡}		127?	0.0	
^x 137 [†]				
^x 148 [†]				

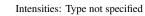
[†] γ rays reported only from coincidence spectra.

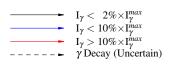
 \ddagger Placement of transition in the level scheme is uncertain.

 $x \gamma$ ray not placed in level scheme.

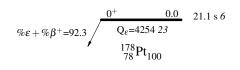
¹⁷⁸Pt ε decay 1993Me13

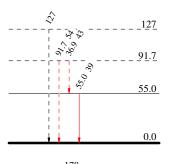
Decay Scheme





Legend





 $^{178}_{~77} \mathrm{Ir}_{101}$