^{181}Hg ε decay 1992Sa03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 367 (2005)	31-Aug-2005

Parent: ^{181}Hg: E=0.0; $J^{\pi}=1/2^{(-)}$; $T_{1/2}$=3.6 s *1*; Q(ε)=7210 *25*; %ε+%$β^+$ decay=69 *5*

^{181}Hg-%ε+%$β^+$ decay: based on %α=31 *5* (weighted average of %α=36 *4* (1982HeZM, from parent-daughter α correlation) and %α=26 *4* (1975Ho02)).

1992Sa03: ^{181}Hg sources from E(p)=200 MeV or E(^{3}He)=270 MeV bombardment of a Pt-B alloy target; on-line separation; HPGe detectors; measured Eγ ($\Delta E_\gamma \leq 0.2$ keV), Iγ ($\Delta I_\gamma \leq 15\%$).

γ(^{181}Au)

1992Sa03 do not construct a level scheme. The sources of these γ's are not clearly established. They may arise from ^{181}Hg ε decay or ^{181}Hg α decay or from subsequent decays of the ^{181}Au and ^{177}Pt daughters of those decays (e.g., ^{177}Ir). These transitions are also absent in ^{181}Au ε decay.

E_γ	I_γ	Comments
x30.8 *2*	13.0 *20*	Additional information 1.
x42.5‡ *2*	76 *11*	Additional information 2.
x147.8 *2*	300† *45*	I_γ: may also include a contribution from a γ in ^{177}Ir following ^{177}Pt ε decay.
x157.4‡ *2*	16.0 *24*	Additional information 3.
x165.8 *2*	16.0 *24*	
x180.1 *2*	≈16	
x185.0 *2*	≈35	
x194.7 *2*	10.0 *15*	
x210.9 *2*	19 *3*	
x214.1 *2*	≈13†	
x217.9 *2*	7.3 *11*	
x223.2‡ *2*	32 *5*	
x265.4‡ *2*	29 *4*	
x281.0 *2*	11.0 *17*	
x330.9 *2*	21 *3*	
x385.6 *2*	18 *3*	
x1202.2 *2*	15.0 *23*	
x1394.4 *2*	18 *3*	
x1776.9 *2*	27 *4*	
x1986.7 *2*	50 *8*	

† Probably a transition in ^{177}Pt (following α decay of ^{181}Hg).
‡ Eγ is close that for a known transition in ^{177}Ir.
x γ ray not placed in level scheme.