

$^{202}\text{Hg}(\text{d},\text{p}\gamma)$ 1986Ze03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 177, 509, 2021	4-Jul-2021

1986Ze03: Enriched target, E=14, 18 MeV; Detectors: Ge(Li), iron-free orange-spectrometer, plastic scintillators, photomultiplier; Measured: E_γ , I_γ , $\gamma\gamma$ coin, ce- γ coin, γ -p coin and ce-p coin, $\gamma(t)$; Deduced: levels, J^π , $T_{1/2}$, transition multiplicities.

 ^{203}Hg Levels

E(level) [†]	J^π [‡]	$T_{1/2}$	Comments
0	$5/2^-$		
7.5 3	$(1/2^-)$		
50.49 20	$(3/2^-)$		
225.2? 4	$(3/2^-)$		
368.95? 18			
548.74 16	$(5/2^-)$		
591.52 18	$9/2^-$		
755.50? 22			
933.13 23	$13/2^+$	$27 \mu\text{s}$ 5	$T_{1/2}$: From 341.5 $\gamma(t)$ and 591.4 $\gamma(t)$ in 1986Ze03.
1117.96 21			
1488.25? 24			

[†] From a least-squares fit to E_γ .

[‡] From 1986Ze03.

 $\gamma(^{203}\text{Hg})$

E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]
206.8 2	10 2	755.50?		548.74	$(5/2^-)$	
217.7 2	65 13	225.2?	$(3/2^-)$	7.5	$(1/2^-)$	(M1)
^x 302.2 2	11 2					
318.4 2	76 15	368.95?		50.49	$(3/2^-)$	(M1)
341.5 2		933.13	$13/2^+$	591.52	$9/2^-$	
^x 351.6 2	21 4					
362.5 2	17 3	1117.96		755.50?		
369.0 2	≈ 60	368.95?		0	$5/2^-$	
370.4 2	≈ 80	1488.25?		1117.96		
^x 403.6 2	6 2					
^x 484.7 2	<23					
498.3 2	31 6	548.74	$(5/2^-)$	50.49	$(3/2^-)$	
541.2 2	48 10	548.74	$(5/2^-)$	7.5	$(1/2^-)$	(E2)
548.8 2	100 20	548.74	$(5/2^-)$	0	$5/2^-$	(M1)
555.0 2		1488.25?		933.13	$13/2^+$	
569.3 2	75 15	1117.96		548.74	$(5/2^-)$	(E1,E2)
591.4 2	55 11	591.52	$9/2^-$	0	$5/2^-$	
^x 656.4 2	13 3					
^x 666.2 2	20 4					
^x 699.8 2	15 3					
^x 703.2 2	25 5					
^x 721.5 2	16 3					

[†] From 1986Ze03.

^x γ ray not placed in level scheme.

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Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

