Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 192,1 (2023)	1-Aug-2023

Q(β^-)=2263 *27*; S(n)=6218 *27*; S(p)=7140 *27*; Q(α)=−230 *50* 2021Wa16

^{200}Au Levels

Cross Reference (XREF) Flags

A ^{200}Pt β^- decay
B ^{200}Au IT decay

E(level)[†]	J$^\pi$	T$_{1/2}$	XREF	Comments
0	(1$^-$)	48.4 min *3*	AB	%β^-=100 J$^\pi$: Strong population of the J^π=0$^+$ and 2$^+$ (1593.4 keV) levels in ^{200}Hg following ^{200}Au β^- decay; π from systematics of single-particle structures in neighboring odd-mass nuclei. T$_{1/2}$: From β(t) in 1959Ro53. Others: 48 min *1* (1960Gi01) and 48 min *2* (1941Sh08). configuration: Dominant $\pi(d_{3/2}^{-1})\otimes\nu(f_{5/2}^{-1})$.
59.98 *3*			AB	
76.22 *4*			A	
103.65 *4*			A	
166.00? *13*			A	
239.55 *9*			A	
243.67 *5*			A	
292.71 *5*			A	
303.69 *3*			A	
390.22 *4*			A	
468.71 *6*			A	
1010 *40*	12$^-$	18.7 h *5*	B	%IT=16 *1*; %β^-=84 *1* μ=5.88 *9* (2019StZV) %IT is from 1972Cu07; Others: %IT=14.8 *26* by the evaluator using I(γ+ce)(497.7γ,^{200}Hg) and I(γ+ce)(332.8γ) (assumed E2) from 1972Cu07, the later being the strongest γ ray assigned to follow the decay of the isomer (1972Cu07) and %IT=3 (1968Sa08). E(level): From 2021Ko07, based on AME mass adjustment − see 2021Hu06 for details. J$^\pi$: Directly measured in 1973Ba11 using the nuclear magnetic resonance of oriented nuclei technique; measured μ; strong β^- feeding of the J^π=11$^-$ state at 2641.57 keV in ^{200}Hg following ^{200m}Au β^- decay. T$_{1/2}$: From 580γ(t) in 1968Sa08. μ: From μ=5.80 *9* in 1984Ha45 determined using the NMR on oriented nuclei technique. Other: 6.10 *20* (1973Ba11). configuration: $\pi(h_{11/2}^{-1})\otimes\nu(i_{13/2}^{-1})$.

[†] From a least squares fit to Eγ, unless otherwise stated.

Adopted Levels, Gammas (continued)

γ(^{200}Au)

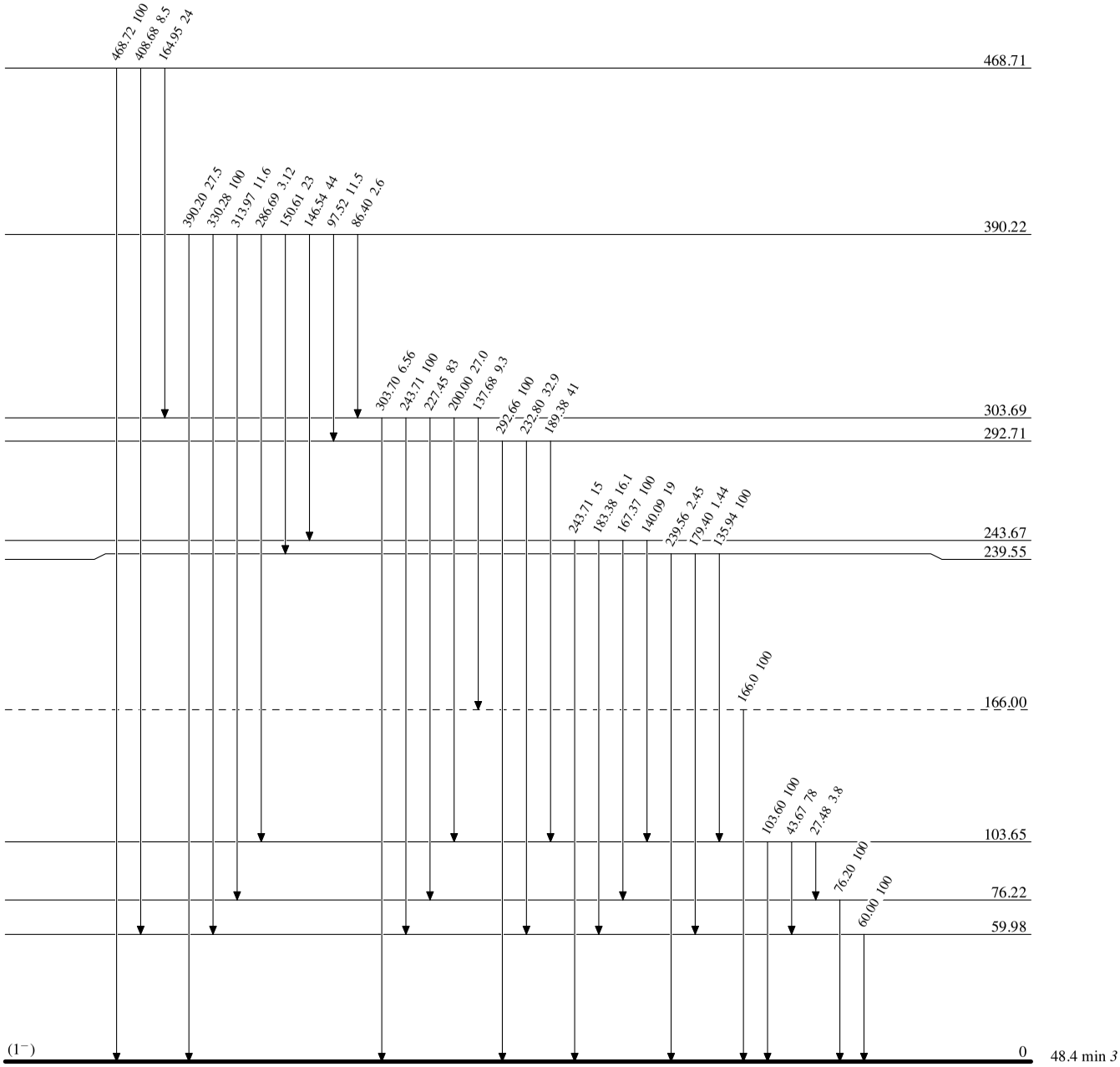
E_i(level)	E_γ †	I_γ †	E_f	J^π_f	E_i(level)	E_γ †	I_γ †	E_f	J^π_f
59.98	60.00 *4*	100	0	(1$^-$)	303.69	137.68‡ *16*	9.3 *13*	166.00?	
76.22	76.20 *5*	100	0	(1$^-$)		200.00 *6*	27.0 *16*	103.65	
103.65	27.48 *10*	3.8 *11*	76.22			227.45 *5*	83 *4*	76.22	
	43.67 *4*	78 *4*	59.98			243.71 *5*	100 *6*	59.98	
	103.60 *9*	100 *5*	0	(1$^-$)		303.70 *5*	6.56 *43*	0	(1$^-$)
166.00?	166.0‡ *2*	100	0	(1$^-$)	390.22	86.40 *14*	2.6 *11*	303.69	
239.55	135.94 *15*	100 *6*	103.65			97.52 *9*	11.5 *16*	292.71	
	179.40 *19*	1.44 *24*	59.98			146.54 *17*	44 *4*	243.67	
	239.56 *16*	2.45 *33*	0	(1$^-$)		150.61 *18*	23 *3*	239.55	
243.67	140.09 *21*	19 *8*	103.65			286.69 *21*	3.12 *64*	103.65	
	167.37 *21*	100 *13*	76.22			313.97 *7*	11.6 *9*	76.22	
	183.38 *15*	16.1 *22*	59.98			330.28 *5*	100 *6*	59.98	
	243.71 *5*	15 *4*	0	(1$^-$)		390.20 *6*	27.5 *16*	0	(1$^-$)
292.71	189.38 *40*	41 *15*	103.65		468.71	164.95 *35*	24 *8*	303.69	
	232.80 *8*	32.9 *25*	59.98			408.68 *22*	8.5 *19*	59.98	
	292.66 *6*	100 *6*	0	(1$^-$)		468.72 *6*	100 *6*	0	(1$^-$)

† From ^{200}Pt β^- decay.
‡ The ordering of the transitions is uncertain.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



$^{200}_{79}Au_{121}$