Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 121, 561 (2014)	31-Mar-2014

Q(β^-)=3880 *SY*; S(n)=4790 *SY*; S(p)=10190 *SY*; Q(α)=1840 *SY* 2012Wa38
ΔQ(β^-)=200 (syst), ΔS(n)=250 (syst), ΔS(p)=450 (syst), ΔQ(α)=360 (syst) 2012Wa38.

^{210}Hg Levels

Cross Reference (XREF) Flags

A ^{210}Hg IT decay (2.1 μs)
B ^{210}Hg IT decay (2 μs)

E(level)†	J$^\pi$‡	T$_{1/2}$	XREF	Comments
0.0	0$^+$		AB	
643	(2$^+$)		AB	
(663)	(3$^-$)	2.1 μs *7*	AB	J$^\pi$: (3$^-$) in 2013Go10, based on unobserved but expected highly converted 20 keV γ-ray feeding the (2$^+$) state, 663γ to 0$^+$ g.s., and calculated reduced transition strengths. Shell model calculation can not reliably predict the location of a 3$^-$ state, because it does not allow core excitations and also the 3$^-$ state in the lead region is very fragmented as mentioned in 2013Go10. For ^{208}Pb, ^{210}Pb, and ^{214}Pb nuclides 3$^-$ state is prediction at much energy. T$_{1/2}$: From 663γ(t).
1196	(4$^+$)		B	
1366	(6$^+$)		B	
x+1366	(8$^+$)	2 μs *1*	B	T$_{1/2}$: From 553γ(t). Other: 2.0 μs *4* (from 643γ(t)).

† From γ-ray energy and feeding.
‡ From shell model calculation and γ ray feeding, except otherwise noted.

γ(^{210}Hg)

E$_i$(level)	J$_i^\pi$	E$_\gamma$	I$_\gamma$	E$_f$	J$_f^\pi$	Mult.	Comments
643	(2$^+$)	643	100	0.0	0$^+$		
(663)	(3$^-$)	(20)	75† *16*	643	(2$^+$)	[E1]	B(E1)(W.u.)=4.9×10^{-6} *22*
		663	100† *16*	0.0	0$^+$	[E3]	B(E3)(W.u.)=2.2 *9*
1196	(4$^+$)	553	100	643	(2$^+$)		
1366	(6$^+$)	170	100	1196	(4$^+$)		
x+1366	(8$^+$)	y					E$_\gamma$: 20 < Y < 80 keV suggested in 2013Go10. Upper limit from x-ray measurements – the 71 keV identified as characteristics K$_\alpha$ x ray following 170 keV γ-ray. Lower limit from systematics.

† From branching ratio 0.43 *9* and 0.57 *9* for 663- and 20-keV γ rays, respectively (Table 2 – 2013Go10).

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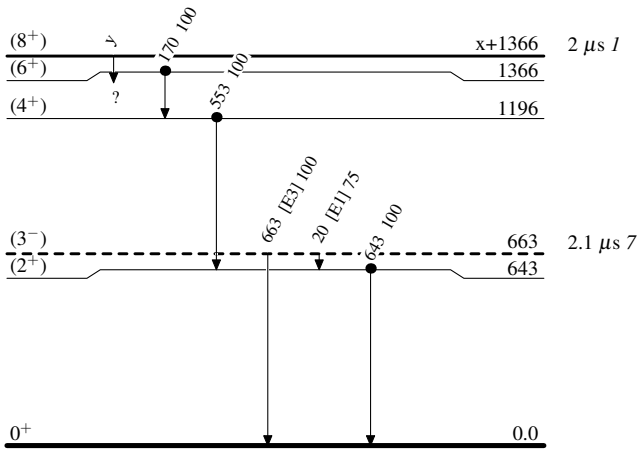
Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

Coincidence



$^{210}_{80}Hg_{130}$