(HI,xnγ) 2001Fo08,2002Pf01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 109, 1527 (2008)	31-Jan-2008

2001Fo08: ^{206}Hg produced in bombardment of ^{208}Pb ions on a 50 mg/cm^2 thick ^{238}U target; E(^{208}Pb)=1360 MeV, pulsed beam with 1.6 μs repetition time; Detectors: Gammasphere spectrometer consisting of 101 Compton-suppressed Ge detectors; Measured: Eγ, Iγ, γγγ(t) coin; Deduced: J^π, $T_{1/2}$, level scheme. Other publications using the same data: 2001Br35, 2001La09 and 2004Br19.

Shell model calculations presented in 2001Ma26.

2002Pf01: ^{206}Hg produced using interaction of ^{208}Pb primary beams at 1 GeV per nucleon with a 1.6 g/cm^2 beryllium target; Detectors: fragment mass separator, four HPGe (CLOVER) detectors located at the focal plane, multi-wire proportional counters and two scintillation detectors; Measured: Eγ, Iγ, γγ coin., γ(t); Deduced: level scheme, $T_{1/2}$, isomeric ratios. Other publications using the same data: 2001Pf03 and 2005Ca02.

^{206}Hg Levels

E(level)†	J^π‡	$T_{1/2}$‡	Comments
0	0^+	8.32 min *7*	$T_{1/2}$: From Adopted Levels.
1068.0 *10*	2^+		Configuration=$\pi(s^{-1}_{1/2},d^{-1}_{3/2})$.
2102.0 *15*	5^-	2.15 μs *21*	$T_{1/2}$: From Adopted Levels. Configuration=$\pi(s^{-1}_{1/2},h^{-1}_{11/2})$. Isomeric ratio is 3.7% *7* (2002Pf01).
2466.0 *18*	(7^-)		Configuration=$\pi(d^{-1}_{3/2},h^{-1}_{11/2})$.
3623.0 *20*	(8^+)		Configuration=$\pi(h^{-2}_{11/2})$.
3723.0 *20*	(10^+)	92 ns *8*	$T_{1/2}$: From 2001Fo08 using a time spectrum produced by summing gates on 364γ(t), 1157γ(t) and 1257γ(t). Other: 90 ns *10* in 2001La09 using a time spectrum produced by gating on the same transitions as in 2001Fo08. Configuration=$\pi(h^{-2}_{11/2})$.
4605.8 *21*	(10^+)		Configuration=$\nu(g_{9/2},i^{-1}_{13/2})$.
4987.1 *21*	(11^+)		Configuration=$\nu(g_{9/2},i^{-1}_{13/2})$.
5643.4 *21*	(12^+)		Configuration=$\pi(d^{-1}_{3/2},h^{-1}_{11/2})_{7-}$ $\nu(g_{9/2}p^{-1}_{1/2})_{5-}$.
6067.2 *21*	(13^-)		Configuration=$\nu(h^{-2}_{11/2})_{10+}$ coupled to 3^- octupole phonon.
6276.2? *23*			Configuration=$\nu(j_{15/2},i^{-1}_{13/2})$. The assignment is tentative.

† From a least-squares fit to Eγ.

‡ From 2001Fo08, unless otherwise specified.

γ(^{206}Hg)

E_γ†	E_i(level)	J^π_i	E_f	J^π_f	Mult.	Comments
100 *1*	3723.0	(10^+)	3623.0	(8^+)	[E2]	I(γ+ce)(100γ)/I(γ+ce)(1257γ)=3.2 *3*, determined using the I(γ+ce)(1157γ)/I(γ+ce)(1257γ) ratio.
209 *1*	6276.2?		6067.2	(13^-)		
364 *1*	2466.0	(7^-)	2102.0	5^-		
381 *1*	4987.1	(11^+)	4605.8	(10^+)		
424 *1*	6067.2	(13^-)	5643.4	(12^+)		
656 *1*	5643.4	(12^+)	4987.1	(11^+)		
883 *1*	4605.8	(10^+)	3723.0	(10^+)		
1034‡ *1*	2102.0	5^-	1068.0	2^+		
1038 *1*	5643.4	(12^+)	4605.8	(10^+)		
1068‡ *1*	1068.0	2^+	0	0^+		
1157 *1*	3623.0	(8^+)	2466.0	(7^-)		
1257 *1*	3723.0	(10^+)	2466.0	(7^-)		

Continued on next page (footnotes at end of table)

(HI,xnγ) 2001Fo08,2002Pf01 (continued)

$\gamma(^{206}Hg)$ (continued)

E_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
1264 *1*	4987.1	(11^+)	3723.0	(10^+)
2344 *1*	6067.2	(13^-)	3723.0	(10^+)

[†] From the level scheme of 2001Fo08. Uncertainties were assigned by the evaluator.
[‡] The ordering of 1034γ and 1068γ is reversed in 2001La09, when compared to 2001Fo08.

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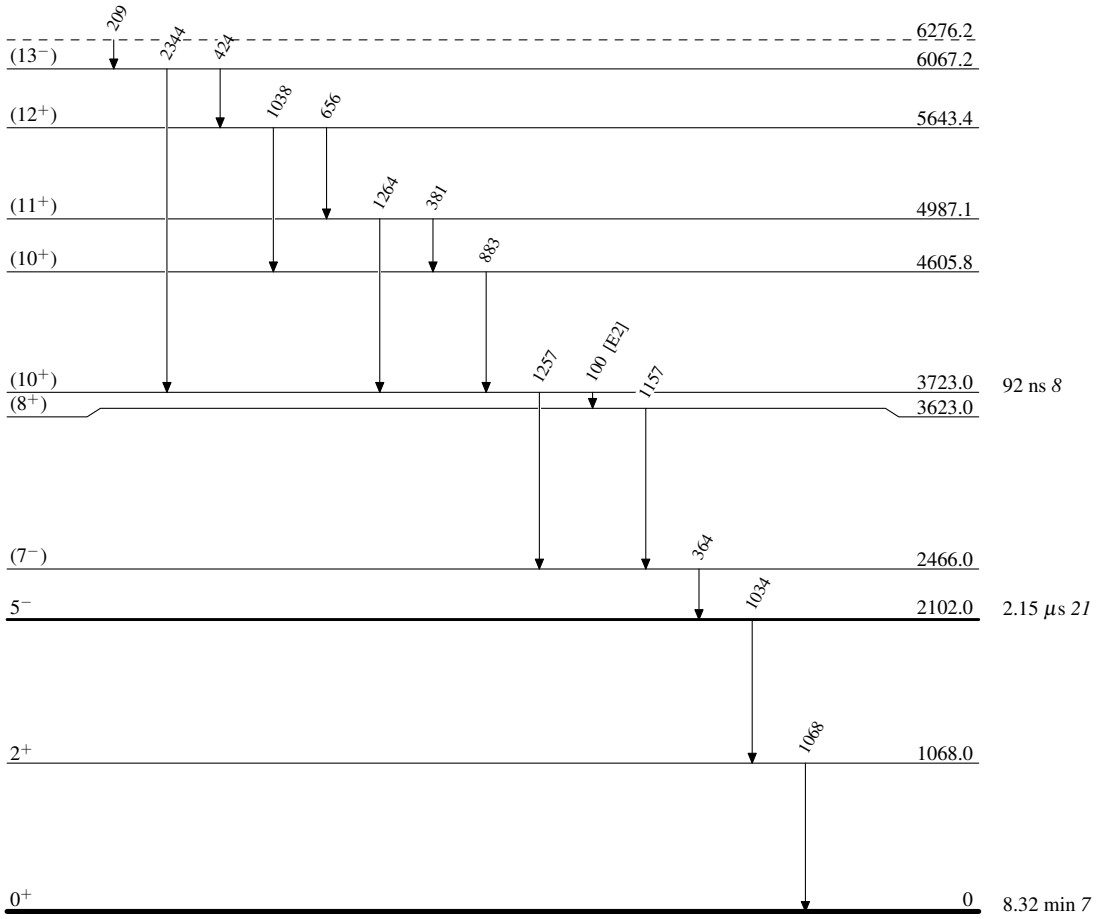
Level Scheme



$^{206}_{80}Hg_{126}$