^{198}Pt(^{136}Xe,Xγ) 2004Wh02

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

2004Wh02: E=850 MeV; >92% ^{198}Pt target; GAMMASPHERE detector array (102 Compton-suppressed Ge detectors, No heavy-metal collimators); CHICO gas-filled PPAC ancillary detector (used to measure the angles of, and time-of-flight difference between, the two heavy-ion recoils); measured Eγ, γγ delayed coin; prompt time resolution≈15 ns. See also 2004Re11, 2004Va03.

^{184}W Levels

E(level)[†]	Jπ[‡]	$T_{1/2}$	Comments
0.0[#]	0^+		
111.0[#] *10*	2^+		
364.0[#] *13*	4^+		
748.7[#] *15*	6^+		
1134.0[@] *13*	4^+		
1252.8[#] *16*	8^+		
1477.1[@] *14*	6^+		
1925.9[@] *15*	8^+		
2479.8[&] *17*	$(8^-,9,10^+)$		Jπ: γ's to 8^+ levels but not to 6^+ levels; calculated energies for possible two quasiparticle configurations At roughly this energy have $J^\pi=8^-$ or 9^- or 10^+. the latter, for (ν 11/2[615]+ν 9/2[624]) configuration, lies closest to the experimental value.
2739.8[&a] *20*			
3060.8[&a] *22*			
3441.8[&a] *24*			
3716[a] *3*			
3864 *3*	$(14^-,15,17^-)$	188 ns *38*	$T_{1/2}$: from 2004Wh02 and 2004Re11; from time spectrum obtained using (260γ and 321γ and 381γ) gates on energy axis of Eγ(t) matrix produced by gating on (554γ and 274γ) delayed transitions. Jπ: probable 4-quasiparticle isomer; candidate configurations with calculated energies near this energy have $J^\pi=14^-$ or 15 or 17^-.

† From least-squares fit to Eγ, assigning 1 keV uncertainty to each datum.
‡ From Adopted Levels, except As noted.
# Band(A): $K^\pi=0^+$ g.s. band.
@ Band(B): $K^\pi=2^+$ γ band.
& Band(C): sequence based on 2480 $(8^-,9,10^+)$ level.
a Energy May differ from value shown because it depends on unestablished order of γ cascade above the 2480 level (2004Wh02).

γ(^{184}W)

E_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[‡]	Comments
111	111.0	2^+	0.0	0^+			
148	3864	$(14^-,15,17^-)$	3716		(M1)	1.552	α(exp)=4.3 *24* Mult.: α(exp) favors M1, but uncertainty is large and authors do not rule out E2 or E1 which are within 2σ of deduced α(exp).
253	364.0	4^+	111.0	2^+			
260	2739.8		2479.8	$(8^-,9,10^+)$			
274	3716		3441.8				

Continued on next page (footnotes at end of table)

^{198}Pt(^{136}Xe,Xγ) 2004Wh02 (continued)

$\gamma(^{184}W)$ (continued)

E_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	E_γ [†]	E_i(level)	J_i^π	E_f	J_f^π
321	3060.8		2739.8		673	1925.9	8^+	1252.8	8^+
343	1477.1	6^+	1134.0	4^+	702[#]	3441.8		2739.8	
381	3441.8		3060.8		729	1477.1	6^+	748.7	6^+
385	748.7	6^+	364.0	4^+	770	1134.0	4^+	364.0	4^+
449	1925.9	8^+	1477.1	6^+	1023	1134.0	4^+	111.0	2^+
504	1252.8	8^+	748.7	6^+	1113	1477.1	6^+	364.0	4^+
554	2479.8	$(8^-,9,10^+)$	1925.9	8^+	1177	1925.9	8^+	748.7	6^+
581[#]	3060.8		2479.8	$(8^-,9,10^+)$	1227	2479.8	$(8^-,9,10^+)$	1252.8	8^+

[†] From fig. 1 of 2004Wh02; authors do not state uncertainties.

[‡] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

[#] Placement of transition in the level scheme is uncertain.

Legend

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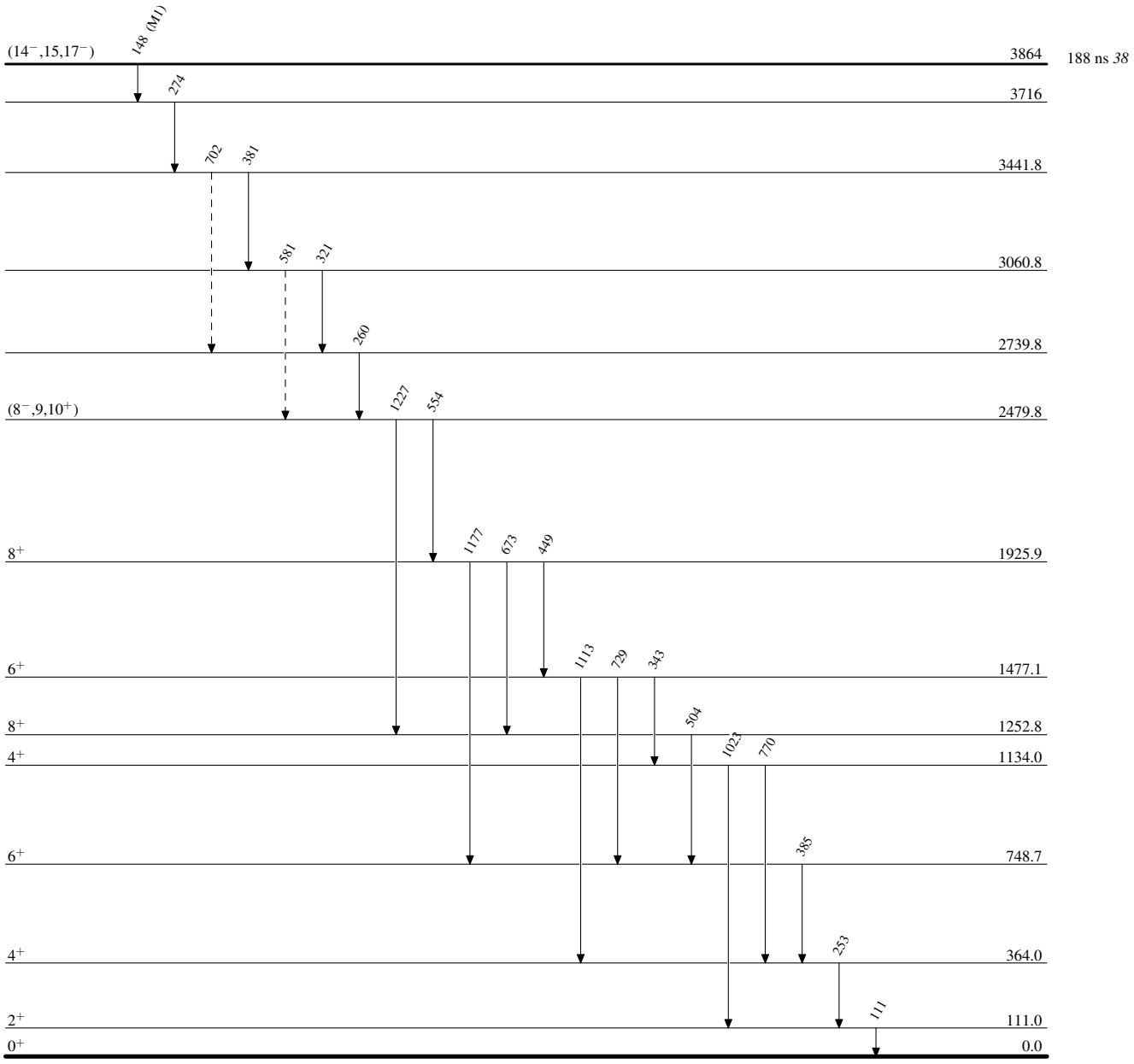
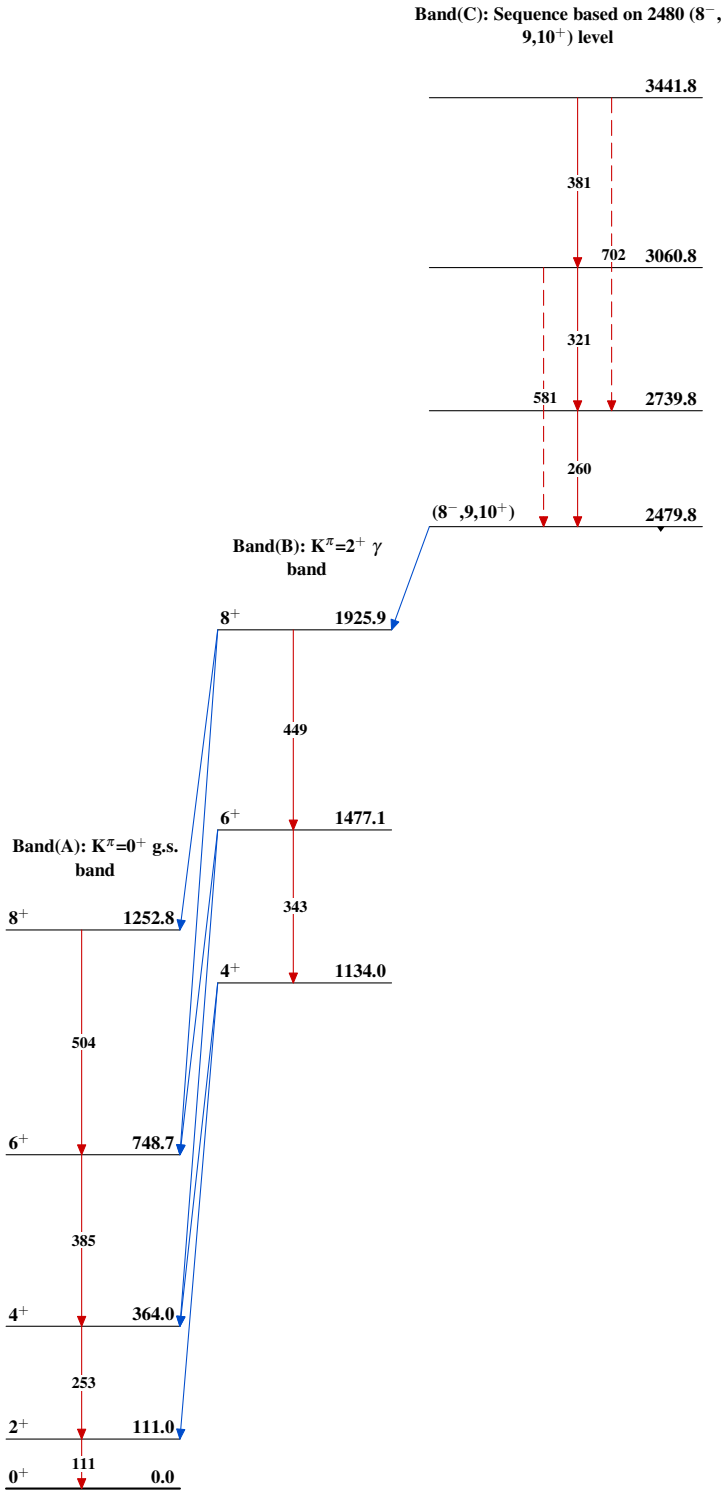
Level Scheme

γ Decay (Uncertain)



$^{184}_{74}W_{110}$

^{198}Pt(^{136}Xe,Xγ) 2004Wh02



$^{184}_{74}W_{110}$