

$^{198}\text{Pt}(^{136}\text{Xe}, X\gamma)$ 2004Va03,2004Re11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

2004Va03,2004Re11: E(^{136}Xe)=850 MeV. 1-2 ns pulses separated by 178 ns; >92% enriched ^{198}Pt target; GAMMASPHERE detector array (103 Compton-suppressed HPGe detectors without BGO heavy-metal collimators, with 70 of the HPGe detectors electrically segmented into two D-shaped halves to improve the Doppler correction); Chico gas-filled parallel-plate avalanche chamber; detected beam-like and target-like fragments from deep inelastic collisions In coincidence with γ -rays from product nuclei; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ coin, recoil- γ - $\gamma(t)$. Identified a previously unknown 190 ns isomer At \approx 4115 keV.

^{192}Os Levels

E(level) [†]	J π [‡]	T _{1/2}	Comments
0 [#]	0 ⁺ @		
206 [#]	2 ⁺ @		
581 [#]	4 ⁺ @		
1090 [#]	6 ⁺ @		
1710 [#]	8 ⁺ @		
2420 [#]	10 ⁺ @		
2988	(12 ⁺)		
3669	(14 ⁺)		
4115	(16 ⁺)	190 ns 96	E(level): it is assumed that the isomer decays directly by 446 γ , but the possibility of a low-energy transition preceding the 446 γ cannot be ruled out. T _{1/2} : (target-like recoil fragments)- $\gamma(t)$ (2004Va03,2004Re11); 446 γ -375 γ pair and 681 γ -568 γ pair used as double γ -ray gates.

[†] From $E\gamma$.

[‡] From level scheme In e-mail reply received by B. Singh from C. Wheldon September 25, 2006, except As noted.

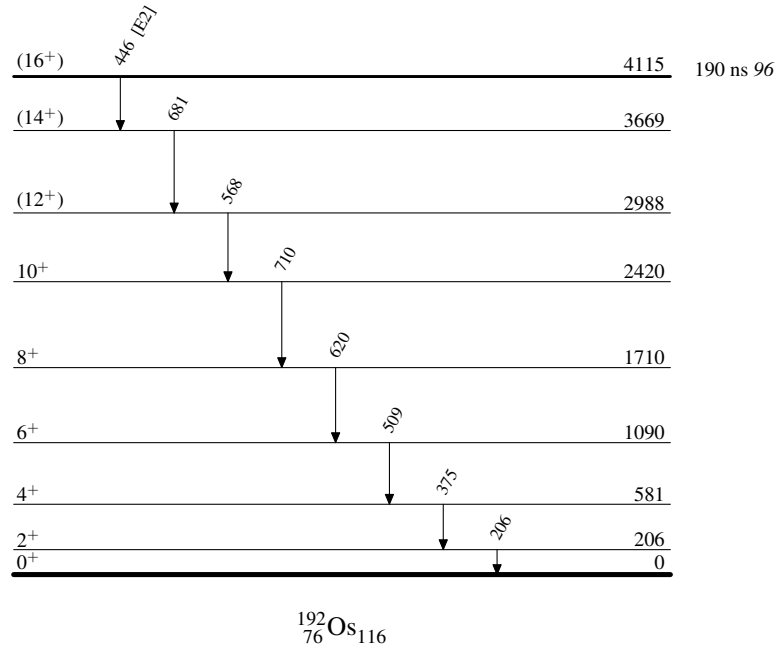
[#] Band(A): K π =0⁺ g.s. Band.

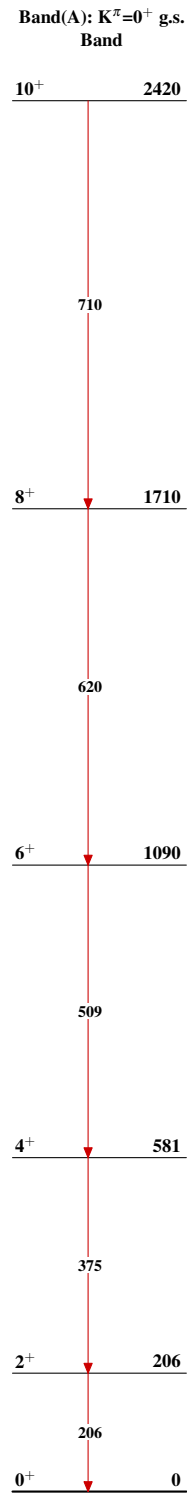
@ From Adopted Levels.

$\gamma(^{192}\text{Os})$

E_γ [†]	$E_i(\text{level})$	J π_i	E_f	J π_f	Mult.	Comments
206	206	2 ⁺	0	0 ⁺		
375	581	4 ⁺	206	2 ⁺		
446	4115	(16 ⁺)	3669	(14 ⁺)	[E2]	E_γ : mislabeled As 357 In spectrum In fig. 5 of 2004Re11 and 2004Va03. if E2, the implied B(E2)(W.u.)=0.0025 14 would be extremely small.
509	1090	6 ⁺	581	4 ⁺		
568	2988	(12 ⁺)	2420	10 ⁺		
620	1710	8 ⁺	1090	6 ⁺		
681	3669	(14 ⁺)	2988	(12 ⁺)		
710	2420	10 ⁺	1710	8 ⁺		

[†] From fig. 5 of 2004Re11 and 2004Va03; uncertainty unstated.

$^{198}\text{Pt} (^{136}\text{Xe}, X\gamma)$ 2004Va03,2004Re11Level Scheme

$^{198}\text{Pt}(^{136}\text{Xe}, X\gamma)$ 2004Va03,2004Re11 $^{192}_{76}\text{Os}_{116}$