

$^{192}\text{Os}(7\text{Li,p3n}\gamma)$ 2011Fa08

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao		NDS 121, 395 (2014)	1-Mar-2014

2011Fa08: ^7Li beam, E=44 MeV produced by the HI-13 Tandem Accelerator at the China Institute of Atomic Energy (CIAE), Beijing. Target=1.7 mg/cm² enriched metallic ^{192}Os foil backed by a 1.1 mg/cm² carbon layer. Gamma rays detected by twelve Compton-suppressed HPGe detectors and low-energy photons by two planar detectors. Measured E_γ , I_γ , angular distribution, X- γ -t and γ - γ -t coincidences. Deduced levels, J, π and bands.

Transition assignment to ^{195}Pt based on coincidences with characteristic Pt x rays and on an understanding of the reaction channel cross sections.

 ^{195}Pt Levels

E(level) [†]	J ^{π}	T _{1/2}	Comments
259.30 [‡]	13/2 ⁺	4.010 d 5	%IT=100 Additional information 1. E(level),T _{1/2} : from Adopted Levels. This level decays by 129.5 – 129.8 γ cascade to g.s. of ^{195}Pt .
628.1 [‡] 5	17/2 ⁺		
758.5 [#] 5	15/2 ⁺		
1187.6 [#] 5	19/2 ⁺		
1206.2 [‡] 6	21/2 ⁺		
1392.0 [@] 6	21/2 ⁻		
1535.9 [@] 8	25/2 ⁻		
1915.8 [‡] 8	(25/2 ⁺)		
1947.5 [@] 10	29/2 ⁻		
2592.8 [@] 11	33/2 ⁻		

[†] From a least-squares fit to E_γ data.

[‡] Band(A): $\nu i_{13/2}^{-1}$ sequence based on 259 level, $\alpha=+1/2$.

[#] Band(a): $\nu i_{13/2}^{-1}$ sequence based on 759 level, $\alpha=-1/2$.

[@] Band(B): Band based on 21/2⁻. 2011Fa08 propose it is associated with the $\nu i_{13/2}^{-2} \otimes \nu j^{-1}$, where j=p_{3/2} or f_{5/2} configuration.

 $\gamma(^{195}\text{Pt})$

The angular distribution asymmetry ratios R_{ADO} listed below is defined by R_{ADO}=I γ (35°)/I γ (90°).

E γ	I γ	E _i (level)	J _i ^{π}	E _f	J _f ^{π}	Comments
143.9 5	27 4	1535.9	25/2 ⁻	1392.0	21/2 ⁻	
185.7 5	29 3	1392.0	21/2 ⁻	1206.2	21/2 ⁺	R _{ADO} =1.29 17.
204.5 5	47 6	1392.0	21/2 ⁻	1187.6	19/2 ⁺	R _{ADO} =0.76 8.
368.8 5	100 8	628.1	17/2 ⁺	259.30	13/2 ⁺	R _{ADO} =1.26 13.
411.6 5	30 4	1947.5	29/2 ⁻	1535.9	25/2 ⁻	R _{ADO} =1.32 15.
429.0 5	47 6	1187.6	19/2 ⁺	758.5	15/2 ⁺	R _{ADO} =1.4 3.
499.2 5	35 4	758.5	15/2 ⁺	259.30	13/2 ⁺	R _{ADO} =0.61 11.
559.6 5	74 6	1187.6	19/2 ⁺	628.1	17/2 ⁺	R _{ADO} =0.50 6.
578.1 5	64 5	1206.2	21/2 ⁺	628.1	17/2 ⁺	R _{ADO} =1.49 20.
645.3 5	23 3	2592.8	33/2 ⁻	1947.5	29/2 ⁻	R _{ADO} =1.34 37.
709.6 5	12 2	1915.8	(25/2 ⁺)	1206.2	21/2 ⁺	

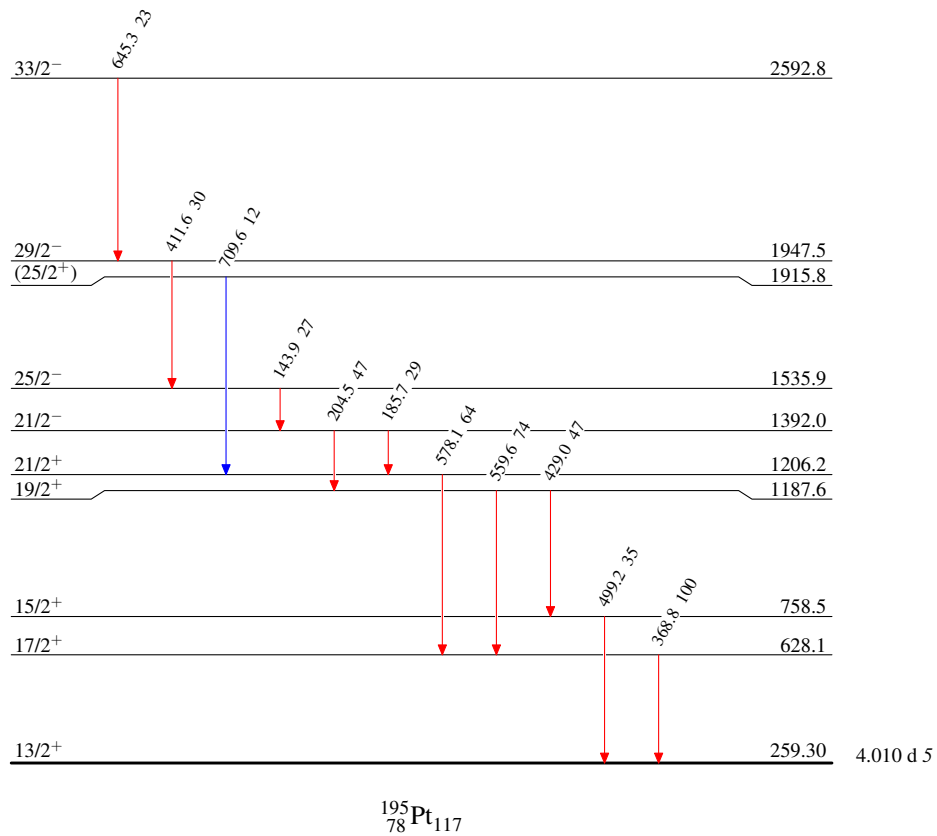
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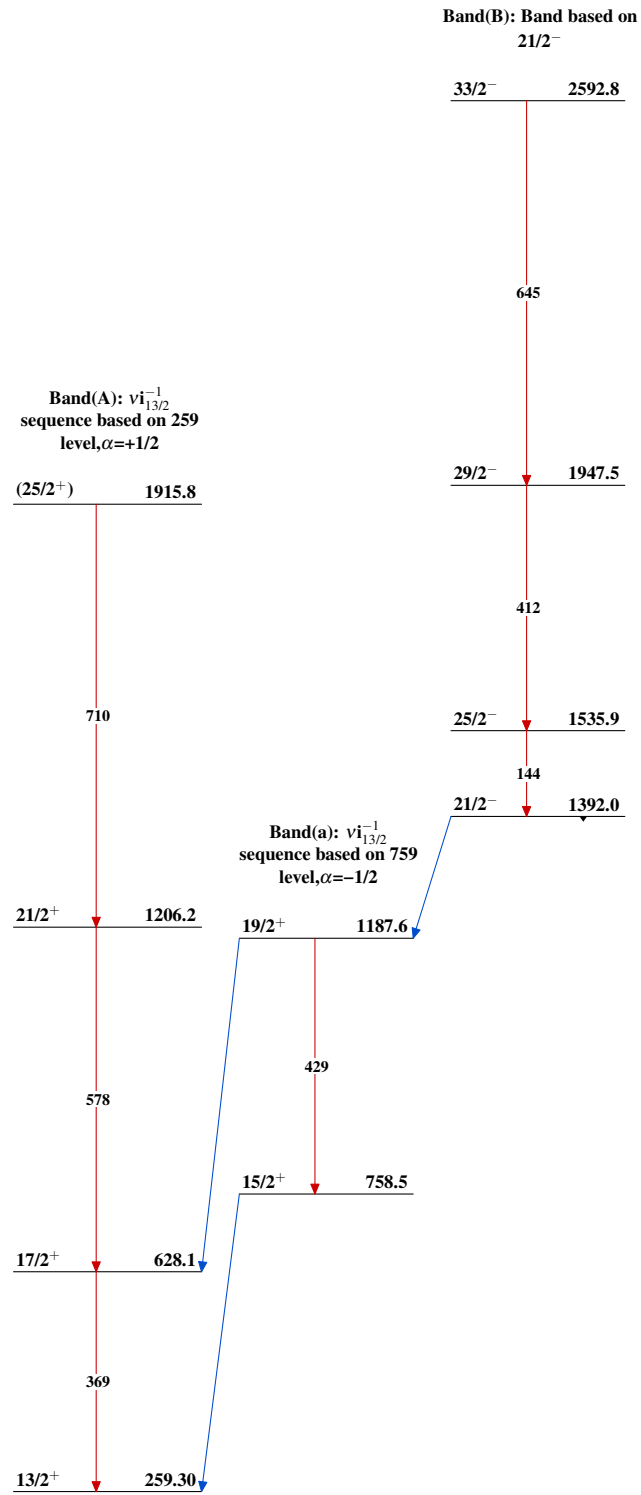
Level Scheme

Intensities: Relative I_γ

Legend

- \longrightarrow $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
 \longrightarrow $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
 \longrightarrow $I_\gamma > 10\% \times I_\gamma^{\text{max}}$



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