

$^{208}\text{Pb}(^{18}\text{O},\text{X}\gamma)$ 2006As07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	B. Singh	NDS 110,2815 (2009)	30-Sep-2009

2006As07 (also 2008AsZZ): E=85 MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ with the Euroball IV array consisting of 15 Cluster Ge detectors placed in the backward hemisphere, 26 Clover Ge detectors located around 90° and 30 tapered single-crystal Ge detectors located at forward angles. Shell-model predictions. Fusion-fission reaction. The γ rays in ^{84}Br were identified through double gating with γ rays from the complementary nuclide ^{137}Cs .

 ^{84}Br Levels

E(level) [†]	J^π [‡]	Comments
3.2×10^2 10	(6 ⁻)	Additional information 1.
849.9 [#] 2	(7 ⁻)	
1821.5 [@] 3	(7 ⁺)	
2015.6 [@] 4	(8 ⁺)	
2016.0 [#] 4	(8 ⁻)	
2290.9 [#] 4	(9 ⁻)	
2710.4 [#] 4	(10 ⁻)	
2741.6 [@] 11	(9 ⁺)	

[†] From least-squares fit to $E\gamma$'s (by compilers). The energy of the 320-keV isomer was for the fitting process, thereby making the assigned uncertainties for the higher-lying states only relative to this fixed energy.

[‡] J^π assignments to high-spin states lying above the (6⁻) β -decaying isomer are from 2006As07, based on the coincidences with the transitions belonging to the complementary fragment ^{137}Cs , systematics of neighboring nuclei, the assumption that spin increases with level energy, and to satisfy the parallel decay paths observed. Due to weak population of ^{84}Br in fusion-fission reaction, no $\gamma\gamma(\theta)$ measurements were made.

[#] Band(A): γ sequence based on (7⁻).

[@] Band(B): γ sequence based on (7⁺).

 $\gamma(^{84}\text{Br})$




E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
194.1 2	46 12	2015.6	(8 ⁺)	1821.5	(7 ⁺)	
274.8 3	24 6	2290.9	(9 ⁻)	2016.0	(8 ⁻)	
419.5 3	10 3	2710.4	(10 ⁻)	2290.9	(9 ⁻)	
529.9 2	100 15	849.9	(7 ⁻)	3.2×10^2	(6 ⁻)	
694.4 4	9 3	2710.4	(10 ⁻)	2016.0	(8 ⁻)	
726 1		2741.6	(9 ⁺)	2015.6	(8 ⁺)	I_γ : weak γ ray.
971.5 3	36 9	1821.5	(7 ⁺)	849.9	(7 ⁻)	
1165.9 3	36 9	2016.0	(8 ⁻)	849.9	(7 ⁻)	
1441.2 4	18 5	2290.9	(9 ⁻)	849.9	(7 ⁻)	
1501.6 4	36 9	1821.5	(7 ⁺)	3.2×10^2	(6 ⁻)	

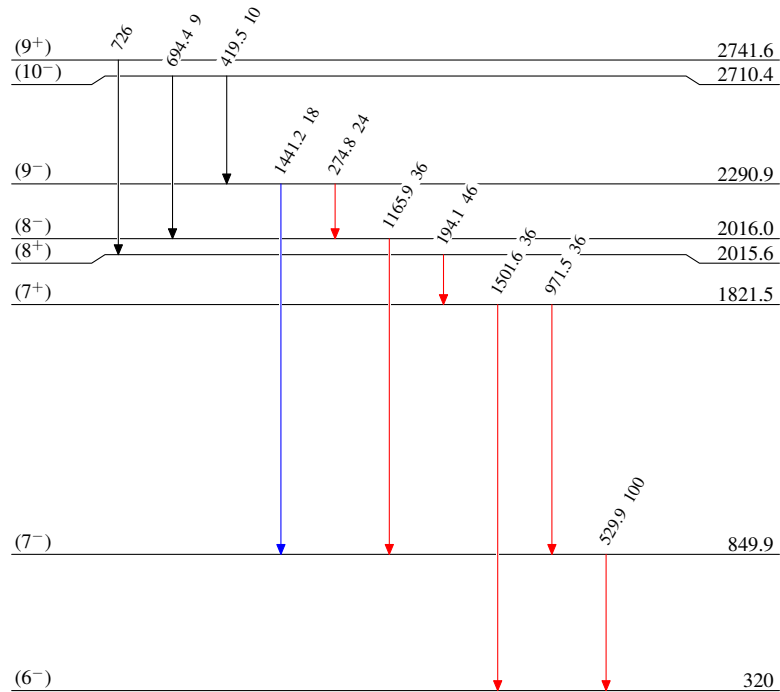
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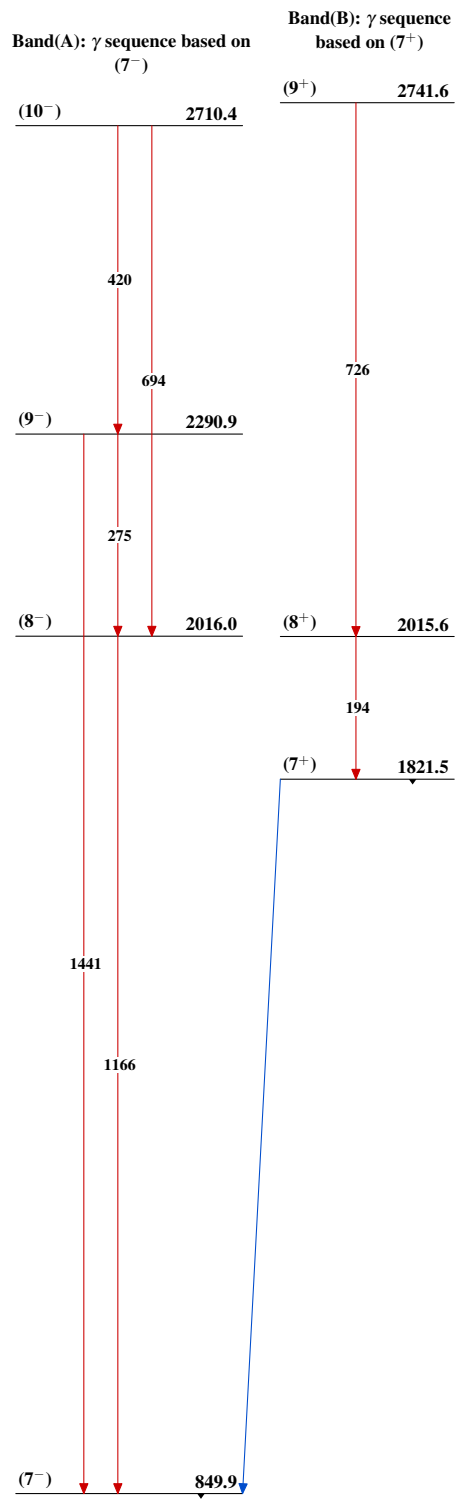
Level Scheme

Intensities: Relative I_γ

Legend

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

 $^{84}_{35}\text{Br}_{49}$

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