

²⁰⁸Pb(¹⁸O,F γ) 2009Po10

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh		NDS 124, 1 (2015)	30-Nov-2014

E=85 MeV; measured E γ , I γ , $\gamma\gamma$, $\gamma\gamma(\theta)$, lifetime using the Euroball IV array at Vivitron accelerator facility in Strasbourg.

⁸⁶Br Levels

E(level) [‡]	J π [†]	Comments
0	(1 ⁻)	
5.1 3	(2 ⁻)	Additional information 1. E(level): From Adopted Levels.
53.1 5	(3 ⁻)	
130.3 6	(4 ⁻)	
243.4 6	(4 ⁻)	
574.5 6	(5 ⁻)	
1494.0 6		
1624.1 6	(7 ⁺)	
1779.5 8		
1920.0 8		
2687.2 7		
3073.7 9		
3240.3 8		
3763.1 8		
3813.8 8		

[†] From Adopted Levels.

[‡] From least-squares fit to the E γ values.

$\gamma(^{86}\text{Br})$

$\gamma\gamma(\theta)$ data for 190-331 cascade. Yields at 22°, 46° and 75° given but no A₂ and A₄ coefficients are listed in 2009Po10.

E γ	I γ [†]	E _i (level)	J π _i	E _f	J π _f	Mult.	δ	α [‡]	Comments
48.0 5		53.1	(3 ⁻)	5.1	(2 ⁻)	M1		0.90 3	$\alpha(\text{exp})=0.9 1$ $\alpha(\text{K})=0.80 3$; $\alpha(\text{L})=0.090 3$; $\alpha(\text{M})=0.0143 5$; $\alpha(\text{N+..})=0.00132 5$
77.0 5		130.3	(4 ⁻)	53.1	(3 ⁻)	M1(+E2)	<0.3	0.32 9	$\alpha(\text{N})=0.00132 5$ $\alpha(\text{exp})=0.3 1$ $\alpha(\text{K})=0.28 8$; $\alpha(\text{L})=0.035 13$; $\alpha(\text{M})=0.0056 20$; $\alpha(\text{N+..})=0.00050 16$ $\alpha(\text{N})=0.00050 16$ δ : deduced by the evaluators from $\alpha(\text{exp})=0.3 1$.
130.4 5	5 2	1624.1	(7 ⁺)	1494.0					
190.3 2		243.4	(4 ⁻)	53.1	(3 ⁻)				
331.1 2	80 8	574.5	(5 ⁻)	243.4	(4 ⁻)				
444.3 3	20 4	574.5	(5 ⁻)	130.3	(4 ⁻)				
522.8 3	4 2	3763.1		3240.3					
573.5 4	2 1	3813.8		3240.3					
919.5 4	4 2	1494.0		574.5	(5 ⁻)				
1049.6 2	50 5	1624.1	(7 ⁺)	574.5	(5 ⁻)				
1063.1 3	8 3	2687.2		1624.1	(7 ⁺)				
1126.7 5	5 2	3813.8		2687.2					
1153.7 5	2 1	3073.7		1920.0					

Continued on next page (footnotes at end of table)

$^{208}\text{Pb}(^{18}\text{O},\text{F}\gamma)$ 2009Po10 (continued) $\gamma(^{86}\text{Br})$ (continued)

<u>E_γ</u>	<u>I_γ^\dagger</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.</u>
1205.0 5	7 3	1779.5		574.5	(5 ⁻)	
1250.8 5	12 4	1494.0		243.4	(4 ⁻)	
1345.5 5	10 4	1920.0		574.5	(5 ⁻)	
1493.5 5	8 4	1624.1	(7 ⁺)	130.3	(4 ⁻)	[E3]
1616.1 5	6 3	3240.3		1624.1	(7 ⁺)	

[†] Relative intensities are normalized to the sum of $I_\gamma(444\gamma) + I_\gamma(331\gamma) = 100$.

[‡] 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.

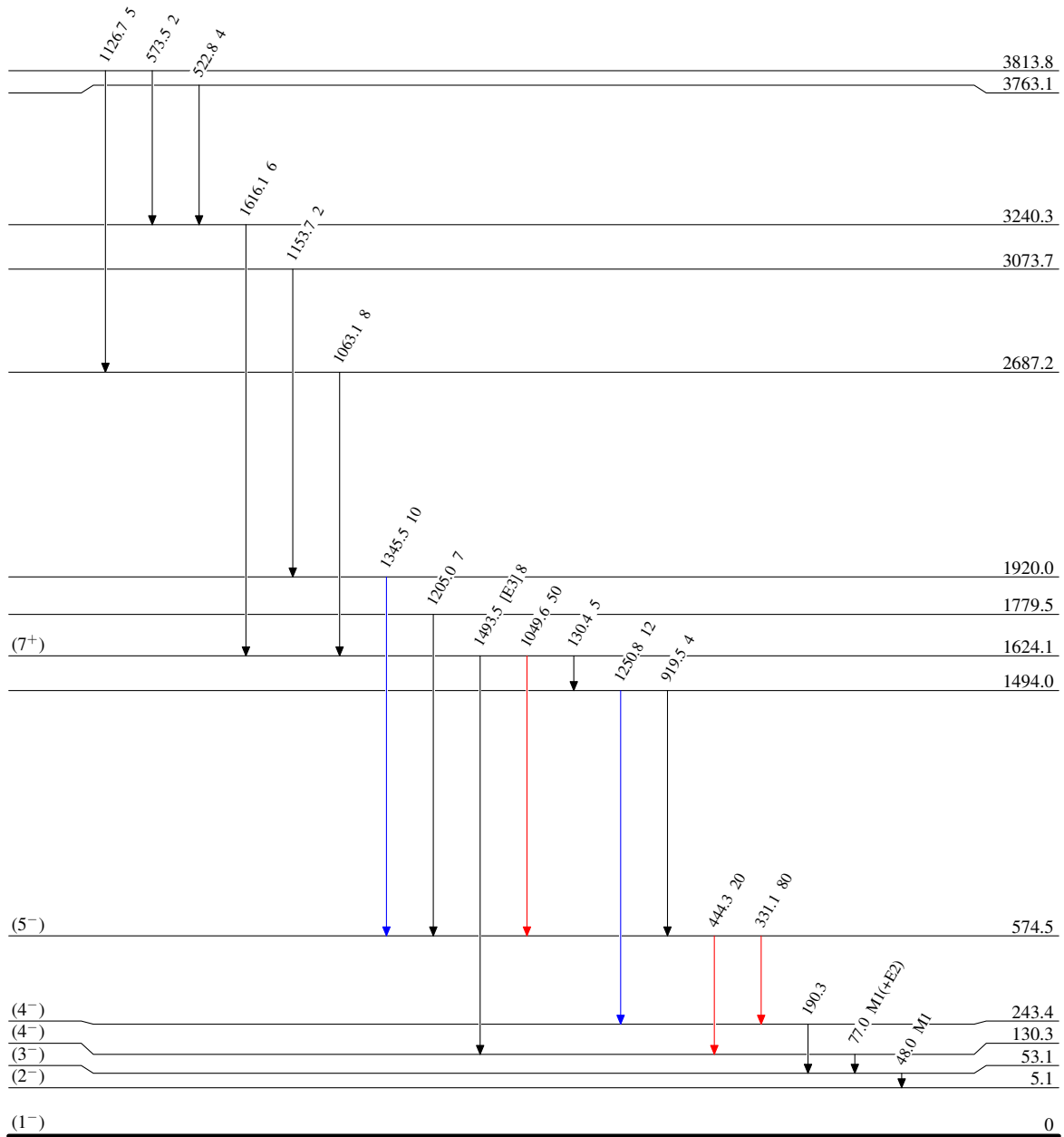
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Level Scheme

Intensities: Relative I _{γ}

Legend

- I _{γ} < 2% × I _{γ} ^{max}
- I _{γ} < 10% × I _{γ} ^{max}
- I _{γ} > 10% × I _{γ} ^{max}



⁸⁶Br₅₁