^{208}Pb(^{18}O,Xγ) 2009Po04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

E=85 MeV beam provided by the VIVITRON accelerator at Strasbourg. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$ using EUROBALL IV array spectrometer of 15 Cluster Ge detectors, 26 Clovers and 30 tapered single-crystals, cluster containing seven detectors and clover a set of four. Comparisons with shell-model calculations.

^{85}Se Levels

E(level)[†]	J$^\pi$[‡]
0.0[#]	5/2$^+$
1113[#]	(7/2$^+$)
1436.1[#] *5*	(9/2$^+$)
1975.4[#] *7*	(11/2$^+$)
2319.5 *8*	(11/2$^+$)
2372.7[#] *8*	(13/2$^+$)
3809.8[#] *9*	(15/2$^+$)
4253.6[#] *12*	(17/2$^+$)

[†] From Eγ data.
[‡] As proposed in 2009Po04 based on shell-model predictions.
[#] Band(A): Yrast sequence.

$\gamma(^{85}Se)$

E$_\gamma$	I$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
397.5 *5*	36 *10*	2372.7	(13/2$^+$)	1975.4	(11/2$^+$)	
443.8 *8*	14 *5*	4253.6	(17/2$^+$)	3809.8	(15/2$^+$)	
539.3 *4*	71 *15*	1975.4	(11/2$^+$)	1436.1	(9/2$^+$)	
883.3 *6*	29 *8*	2319.5	(11/2$^+$)	1436.1	(9/2$^+$)	
1113[‡]		1113	(7/2$^+$)	0.0	5/2$^+$	
1436.1 *5*		1436.1	(9/2$^+$)	0.0	5/2$^+$	
1437.5 *8*	14 *5*	3809.8	(15/2$^+$)	2372.7	(13/2$^+$)	
1490 *1*	14 *5*	3809.8	(15/2$^+$)	2319.5	(11/2$^+$)	
1834 *1*		3809.8	(15/2$^+$)	1975.4	(11/2$^+$)	I$_\gamma$: weak γ ray.

[†] Normalized to 100 for Iγ(539)+Iγ(883) by the author of 2009Po04.
[‡] Placement of transition in the level scheme is uncertain.

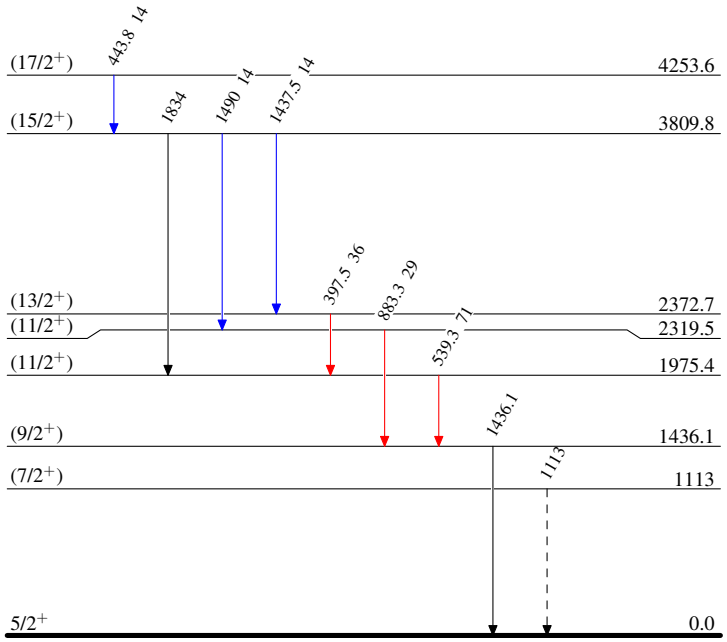
^{208}Pb(^{18}O,Xγ) 2009Po04

Level Scheme

Intensities: Relative I_γ

Legend

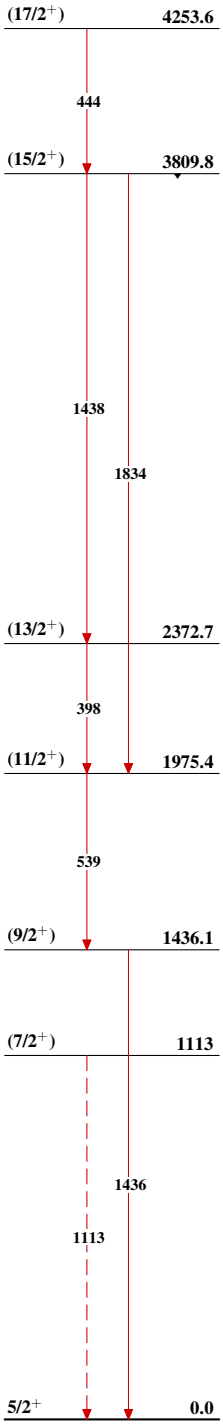
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



$^{85}_{34}Se_{51}$

^{208}Pb(^{18}O,Xγ) 2009Po04

Band(A): Yrast sequence



$^{85}_{34}Se_{51}$