

$^{208}\text{Pb}(^{18}\text{O},\text{X}\gamma)$ 2004Pr10

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni, M. Fadil, and B. Pfeiffer		NDS 110,2815 (2009)	30-Sep-2009

E=85 MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ with the euroball iv array containing 71 Compton-suppressed Ge detectors (15 cluster Ge detectors placed in the backward hemisphere with respect to the beam, 26 Clover Ge detectors located around 90° , 30 tapered single-crystal Ge detectors located at forward angles) and an inner ball of 210 BGO crystals. Each cluster detector is composed of seven closely packed large-volume Ge crystals and each Clover detector consists of four smaller Ge crystals.

 ^{84}Se Levels

E(level) [†]	J^π [‡]
0.0 [#]	0^+
1454.51 [#] 20	(2^+)
2121.3 [#] 4	(4^+)
3370.0 4	
3536.7 4	(5^+)
3700.9 [#] 4	(6^+)
4405.3 6	(7^+)
4898.1 6	

[†] From least-squares fit to $E\gamma$'s.

[‡] From Adopted Levels, based on the fact that the 1454 γ and 667 γ consistent with $Q(\beta^-)Q$ cascade, shell-model calculations, and systematics of N=50 nuclei.

[#] Band(A): γ -sequence based on ground state.

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

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]
164.1 2	11 6	3700.9	(6^+)	3536.7	(5^+)	
666.8 3	100 5	2121.3	(4^+)	1454.51	(2^+)	Q
704.4 4	10 3	4405.3	(7^+)	3700.9	(6^+)	
1248.7 2	12 3	3370.0		2121.3	(4^+)	
1361.4 4	3 1	4898.1		3536.7	(5^+)	
1415.3 2	25 3	3536.7	(5^+)	2121.3	(4^+)	
1454.5 2		1454.51	(2^+)	0.0	0^+	Q
1579.8 3	14 3	3700.9	(6^+)	2121.3	(4^+)	

[†] From (667 γ)(1454)(θ), results consistent with $Q(\beta^-)Q$ cascade.

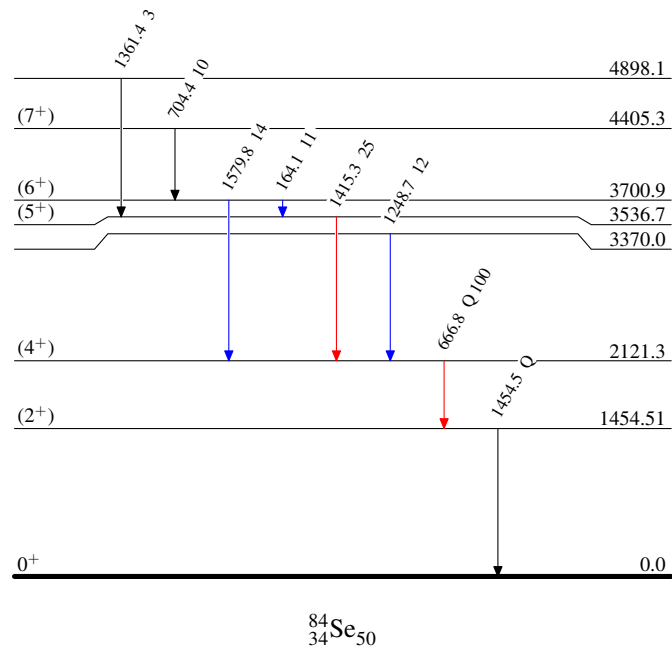
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Level Scheme

Intensities: Relative I_γ

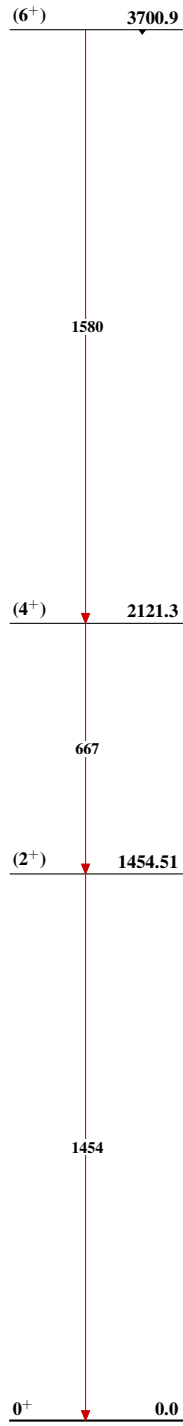
Legend

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

 $^{84}_{34}\text{Se}_{50}$

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Band(A): γ -sequence
based on ground state

 $^{84}_{34}\text{Se}_{50}$