^{48}Ca(^{48}Ca,Xγ) 2001Br35

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Ota and E. A. Mccutchan	NDS 203,1 (2025)	1-Apr-2025

2001Br35: E(^{48}Ca)=210 MeV. Measured Eγ, Iγ, γγ-coin using GASP array at the INFN Legnaro Laboratory. Target was 1.2 mg/cm^2 ^{48}Ca backed by thick ^{208}Pb.

^{47}Ca Levels

E(level)†	Jπ‡	Comments
0	7/2$^-$	
2013.7	3/2$^-$	
2578.5	3/2$^+$	
2599.8	1/2$^+$	
3562.5	(9/2$^-$)	
3934.1	(11/2$^-$)	Jπ: 2001Br35 notes that previous assignment of (7/2$^+$,5/2$^-$) is in conflict with observed decay pattern.
3999.5	(13/2$^+$)	
4402.7		Jπ: 2001Br35 notes that previous assignment of 1/2$^-$ is in conflict with observed decay pattern.
4810.7		Jπ: 2001Br35 notes that previous assignment of 3/2$^-$ is in conflict with observed decay pattern.

† From least-squares fit to Eγ's by evaluators.
‡ As given in 2001Br35 based on previous literature.

γ(^{47}Ca)

Eγ	Ei(level)	J_i^π	E_f	J_f^π	Mult.
65.3	3999.5	(13/2$^+$)	3934.1	(11/2$^-$)	(E1)†
403.2	4402.7		3999.5	(13/2$^+$)	
408	4810.7		4402.7		
437.0	3999.5	(13/2$^+$)	3562.5	(9/2$^-$)	(M2)†
564.8	2578.5	3/2$^+$	2013.7	3/2$^-$	
586.0	2599.8	1/2$^+$	2013.7	3/2$^-$	
2013.7	2013.7	3/2$^-$	0	7/2$^-$	
3562.4	3562.5	(9/2$^-$)	0	7/2$^-$	
3933.8	3934.1	(11/2$^-$)	0	7/2$^-$	
3999.4	3999.5	(13/2$^+$)	0	7/2$^-$	(E3)†

† Suggested multipolarity based on observed γ branching.

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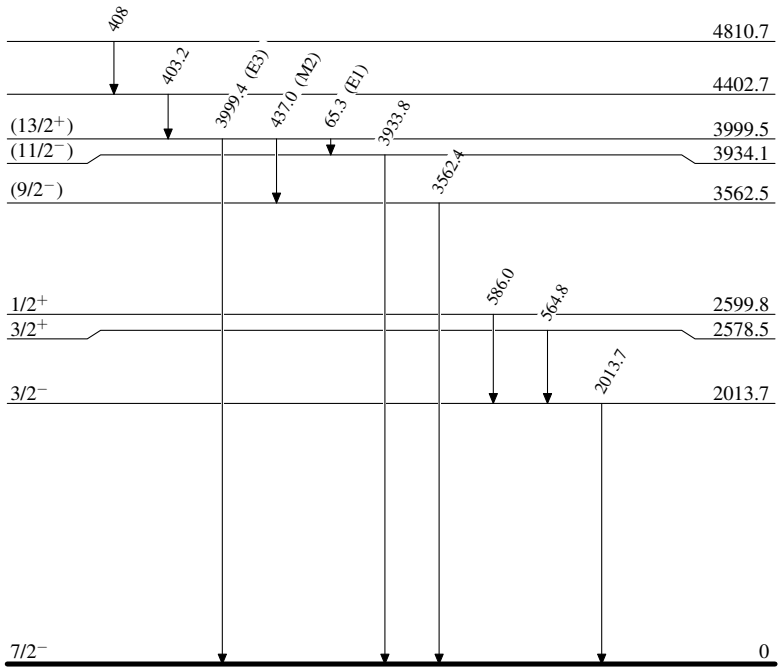
Level Scheme



$^{47}_{20}Ca_{27}$