^{48}Ca(^{9}Be,2npγ) 1978Wa09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde	NDS 121, 1 (2014)	20-Jun-2014

E=27, 35 MeV, measured σ(Eγ,θ), σ(E,Eγ), γγ-coin, DSA.
Comparison with particle transfer data supports that the γ cascade observed in this reaction terminates on the ^{54}V ground state.
The J values are based on J(g.s.)=3$^+$, but the sequence J, J+1, J+2, J+3, J+4 would persist even if the former were not true.
Relative intensities of the various γ-rays observed in coincidence and singles measurements suggest the order.

^{54}V Levels

E(level)‡	Jπ†	Comments
0.0	3$^+$	Jπ: from Adopted Levels.
244.65 *11*	(4)	
1214.62? *19*	(5)	
1828.8? *3*	(6)	

† From angular distributions, except as noted.
‡ E(level) for states connected by γ from using least-squares adjustment procedures.

γ(^{54}V)

Eγ	Iγ†	Ei(level)	J_i^π	Ef	J_f^π	Mult.‡	Comments
244.65 *11*	100	244.65	(4)	0.0	3$^+$	D	Additional information 1.
614.89 *60*	18	1828.8?	(6)	1214.62?	(5)	D	Additional information 3. From crossover transitions and relative intensities, 615γ.
969.92 *15*	39	1214.62?	(5)	244.65	(4)	D	Additional information 2.

† From fitted angular distributions at E(^{9}Be)=27 MeV.
‡ Since A_2<0.

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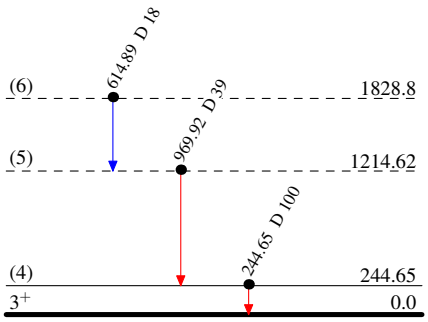
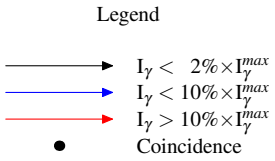
Level Scheme

Intensities: Relative I_γ





$^{54}_{23}V_{31}$