

$^9\text{Be}(^{48}\text{Ca},\text{X}\gamma): E=60.3 \text{ MeV/A}$ [2004So30](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 109, 171 (2008)	30-Oct-2007

Fragmentation of ^{48}Ca beam. The SPEG magnetic spectrometer At GANIL was operated In a dispersive mode to identify the emerging fragments detected At the focal plane. Fragment energy losses and positions In the focal plane were determined by the combination of ionization and drift chambers. Their residual energies were obtained In a thick plastic scintillator. The tof was derived from the timing signals In the plastic scintillator with respect to the cyclotron radio frequency and was corrected by the use of the position of the fragments In the focal plane of the SPEG spectrometer to obtain a better time resolution and subsequently a better identification of the nuclei. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(\theta)$ with an array of 74 BaF₂ and three segmented Ge clover detectors to identify the γ 's emitted In flight by the excited fragments. The segmented Ge detectors At 85°, 122°, and 136° to the beam allowed for angular distribution measurements.

 ^{45}Cl Levels

E(level)	J^π	Comments
0.0	(1/2 ⁺)	J^π : assumed by 2004So30 .
927 7	(5/2 ⁺)	J^π : proposed by 2004So30 based on the γ angular anisotropy ratios.
1616 8		

 $\gamma(^{45}\text{Cl})$

E_γ	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	Comments
927 7	100	927	(5/2 ⁺)	0.0	(1/2 ⁺)	D,E2	Mult.: $\Delta J=2$ Q or $\Delta J=0$ D transition from $I_\gamma(122^\circ)/I_\gamma(136^\circ)=0.9$ 4; $I_\gamma(85^\circ)/I_\gamma(136^\circ)=0.9$ 4.
1616 8	60	1616		0.0	(1/2 ⁺)		

[†] Relative intensity.

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Level Scheme
Intensities: Relative I_γ

Legend

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

