⁹Be(⁴⁸Ca,Xγ) **2002So14,2002Az02,2002Gu08**

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Full Evaluation Jun Chen# and Balraj Singh NDS 135, 1 (2016) 31-May-2016

2002So14,2002Az02,2002Az01,2002Gu08: E=60 MeV/nucleon 48 Ca beam was produced at GANIL. A 2.77 mg/cm 2 Be target. Fragments were analyzed with the SPEG spectrometer and γ -rays were detected by an array 25% efficiency at 1.33 MeV) of 74 BaF $_2$ crystals (FWHM=200 keV at 1 MeV, 500 keV at 3 MeV) and three segmented Ge clover detectors (0.12% efficiency at 1.3 MeV, FWHM=30 keV at 1.3 MeV). Measured E $_{\gamma}$, I $_{\gamma}$, $_{\gamma}$ 0, $_{\gamma}$ 0, $_{\gamma}$ 0-coin. Deduced levels, $_{\gamma}$ 7, branchings. Comparison with shell-model calculations.

⁴²S Levels

E(level) [†]	J^{π}	Comments
0	0+	
904 5	2+	J^{π} : from Adopted Levels.
2725 10	$(4^+)^{\ddagger}$	
2779 <i>11</i> 4245 <i>13</i>	$(2^+)^{\ddagger}$	

 $^{^{\}dagger}$ From least-squares fit to Ey data.

γ (42S)

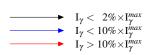
E_{γ}	I_{γ}	$E_i(level)$	J_i^{π}	\mathbf{E}_f	\mathbf{J}_f^{π}
904 5	100	904	2+	0	0+
1466 8	30	4245		2779	(2^{+})
1821 8	70	2725	(4^{+})	904	2+
1875 9	30	2779	(2^{+})	904	2+

 $^{^{\}ddagger}$ $\Delta J=2$ quadrupole or $\Delta J=0$, dipole from $\gamma(\theta)$ for 1821+1875 summed peak, and systematic of neighboring nuclides.

⁹Be(⁴⁸Ca,Xγ) 2002So14,2002Az02,2002Gu08

Level Scheme

Intensities: Relative I_{γ}



Legend

