

$^{42}\text{Ca}(\alpha, ^2\text{He})$  1990Fi07

Type	Author	History	Citation	Literature Cutoff Date
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## Additional information 1.

1990Fi07: E=55.7 MeV alpha beam produced from the Bonn isochronous cyclotron. Enriched  $^{42}\text{Ca}$  target (87.7%), thickness 530  $\mu\text{g}/\text{cm}^2$ . Two  $\Delta E$ -E telescopes for detecting breakup protons from  $^2\text{He}$  in, coincidence, FWHM=200-300 keV. Measured  $\sigma(E(2p), \theta)$ . Deduced levels,  $J^\pi$ , L from DWBA analysis.

Target  $^{42}\text{Ca}$   $J^\pi=0^+$ .

Uncertainty  $\Delta E \approx 50$  estimated by the evaluators from measured spectrum in 1990Fi07.

 $^{44}\text{Ca}$  Levels

E(level) <sup>†</sup>	$J^\pi$ <sup>†</sup>	L <sup>†</sup>	Relative yield <sup>†</sup>	Comments
0	0 <sup>+</sup>	0	1.00×10 <sup>3</sup> 28	
2030 50	2 <sup>+</sup>	2	33 10	
3290 50	6 <sup>+</sup>	6	80 20	
4550 50	(6 <sup>+</sup> , 7 <sup>-</sup> )	(6, 7)		Relative yield: or 11 2 (1990Fi07).
5210 50	(4 <sup>+</sup> , 5 <sup>-</sup> )	4+5	21 6	E(level): unresolved doublet.
5860 50	0 <sup>+</sup>	0	1.7×10 <sup>3</sup> 5	
6210 50	2 <sup>+</sup>	2	40 15	
8050 50	3 <sup>-</sup>	3	10 4	
8290 50	5 <sup>-</sup>	5	10 4	
8860 50	(5 <sup>-</sup> , 6 <sup>+</sup> , 7 <sup>-</sup> )	(5, 6, 7)		
9460 50	3 <sup>-</sup>	3	70 15	
9750 50	(7 <sup>-</sup> , 8 <sup>+</sup> )	(7, 8)		

<sup>†</sup> From 1990Fi07.