

$^{40}\text{Ca}(^9\text{Be}, ^8\text{Be})$ 1977La11,1977St20

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan		NDS 133, 1 (2016)	30-Sep-2015

1977La11 (also 1978Un02): E(^9Be)=20 MeV from tandem Van de Graaff accelerator at Nuclear Physics Laboratory, ETH Zurich.

Detected α - α coincidence from ^8Be decay using silicon surface barrier detectors. Measured $\sigma(\theta)$ from 20° - 70° . DWBA analysis (MARS-SATURN code).

1977St20: E(^9Be)=50 MeV from LBNL 88 inch cyclotron. Detected α - particles from ^8Be decay using surface barrier silicon position sensitive detectors (FWHM=450 keV). Measured $\sigma(\theta)$. DWBA analysis (PTOLEMY code).

 ^{41}Ca Levels

E(level) [‡]	J ^π [†]	L [@]	S [‡]	Comments
0	7/2 ⁻	2,3,4	0.71 10	S: 0.21 (1977St20).
1940	3/2 ⁻	0,1,2	0.79 10	S: 0.20 (1977St20).
2460	3/2 ⁻	0,1,2	0.26 4	S: 0.08 (1977St20).
3400	1/2 ⁺		0.090 10	
3940	1/2 ⁻	1,2	0.71 8	E(level): from 1977St20. E=3890 (1977La11). S: 0.18 (1977St20).
4740	1/2 ⁻	1,2	0.33 6	S: 0.10 (1977St20).
5290	5/2 ⁺		0.11 2	
5640	(5/2) ⁻		0.76 14	E(level): possibly a doublet.
7500 [#]				
8600 [#]				

[†] From Adopted Levels.

[‡] From 1977La11, unless otherwise stated.

[#] From 1977St20 only.

[@] From 1977St20.