

$^{40}\text{Ca}(\gamma, n)$ 1977Ad03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 149, 1 (2018)	1-Jan-2018

1977Ad03: E=100-750 MeV bremsstrahlung beam was produced from the 1.2 GeV Lund electron synchrotron. Target was metallic calcium of natural isotopic composition with a thickness of 1.5 g/cm². De-excitation γ rays were detected with a 35 cm³ Ge(Li) detector. Measured E_γ , yields. Deduced upper limit for C²S value.

Others:

1997Si04: isovector quadrupole resonance parameters for ^{40}Ca .

1991Ed01, 1990Ke06, 1968Go29, 1966An03, 1964Ba24: GDR In ^{40}Ca .

Additional information 1.

All data are from 1977Ad03, unless otherwise noted.

 ^{39}Ca Levels

E(level)	J^π [†]	$\sigma_p(\text{eq.q.})$ [‡]	Comments
0	3/2 ⁺		
2470	1/2 ⁺	1.2 2	C ² S≤1.3 nucleons (1977Ad03).
2790	7/2 ⁻	0.2 1	
3020	3/2 ⁻	1.1 4	

[†] From Adopted Levels.

[‡] Quoted values are for cross section per equivalent quantum. 1977Ad03 claim that the pion contribution to the yields are small and of the same order of magnitude as or less than the statistical uncertainty.

 $\gamma(^{39}\text{Ca})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
2470	2470	1/2 ⁺	0	3/2 ⁺
2790	2790	7/2 ⁻	0	3/2 ⁺
3020	3020	3/2 ⁻	0	3/2 ⁺

 ${}^{40}\text{Ca}(\gamma, n)$ 1977Ad03Level Scheme