^{40}Ca(^{7}Li,^{7}Be),(^{7}Li,^{7}Beγ) 1979Wi01,1996Wi05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 140, 1 (2017)	30-Sep-2015

1979Wi01: (^{7}Li,^{7}Be) E=35 MeV ^{7}Li beam was produced from the Florida State Super FN Tandem Van de Graaff accelerator. Targets were made of natural CaF_2 evaporated onto 10 μg/cm^2 carbon backings. Reaction products were detected with two ΔE-E Si surface barrier detector telescopes (FWHM=135 keV). Measured $\sigma(\theta)$. Deduced levels. Compared with Microscopic distorted-wave approximation (DWA) calculations.

1996Wi05: (^{7}Li,^{7}Beγ) E=490 MeV ^{7}Li beam was produced from K1200 cyclotron at NSCL. Targets are 10.4 mg/cm^2 natural Calcium. Charged particles were analyzed by the A1200 magnetic analyzer and detected in a silicon position-sensitive (PSD) detector; γ rays were detected with an array of 10 CsI scintillators. Measured E(^{7}Be), Eγ, particle-γ-coin. Deduced continuum isovector spin strength.

1986NaZW: (^{7}Li,^{7}Beγ) E=150 MeV. Measured σ. Deduced giant resonance excitation.

^{40}K Levels

E(level)	Comments
15[†]	E(level): unresolved doublet 0+30 (1979Wi01).
850[†]	E(level): unresolved doublet 800+891 (1979Wi01).
1960[†]	
2270[†]	E(level): unresolved doublet 2260+2290 (1979Wi01).
≈7000[‡]	
≈11000[‡]	E(level): T=2 analog of GDR in ^{40}Ca.

[†] From 1979Wi01.
[‡] Giant resonances observed in 1996Wi05.