
 $^{43}\text{Ca}(\text{d}, ^3\text{He})$ [1969Yn01](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen [#] and Balraj Singh		NDS 135, 1 (2016)	31-May-2016

Target ^{43}Ca $J^\pi=7/2^-$.

[1969Yn01](#): E=22 MeV deuteron beam was produced from the Argonne cyclotron. Enriched calcium target (81.1% in ^{43}Ca).

Reaction products were detected with a ΔE -E telescope of surface-barrier detectors, FWHM=70-130 keV. Measured $\sigma(\theta)$. Deduced levels, L, spectroscopic factors from DWBA analysis.

Other: [1975BrZB](#) (also [1973BrXY](#)).

 ^{42}K Levels

E(level)	L	$\text{C}^2\text{S}^\dagger$	Comments
0	2	0.36	
104 40	2	0.70	
252 40	2	0.92	
630	0		E(level),L: from 1973BrXY .
680 40	2	1.07	E(level),L, C^2S : this level is associated with 699, 5^- level in Adopted dataset. May contain contribution from 639, 3^- level.
1200 40	0	0.53	E(level): probably a doublet in 1973BrXY .
1460 40	(0)	0.08	
1630 40			
2010 40	0	0.27	
2130 40	0	0.27	
2700 40			L: $\sigma(\theta)$ fitted to L=2 and 0, with L=2 fit somewhat preferred.

[†] [1990En08](#) give S-factors ($\text{C}^2=1$) which are adjusted upward by $\approx 25\%$ based on standardized normalization factors in [1977En02](#).