^{40}Ar(α,d) 1976De24

History

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

Target ^{40}Ar $J^{\pi}=0^{+}$.

1976De24: E=34.3 MeV alpha beam was produced from the Princeton azimuthally varying field cyclotron. Natural Argon target. Deuterons were detected in a freon cooled ΔE-E silicon detector telescope followed by a third detector in anti-coincidence, FWHM=110 keV. Measured $\sigma(E_d,\theta)$. Deduced levels, L from DWBA analysis.

1966Ri04: E=44 MeV alpha beam was produced from the Berkeley 88-in. spiral ridge cyclotron. A counter telescope of two lithium drifted silicon crystals. Measured deuteron spectra. FWHM ≈ 200 keV.

^{42}K Levels

E(level)	L	dσ/dW (μb/sr)[†]
0	1	32
107[‡]		15
700[‡]	5	150
1170 *50*		50
1534 *50*	4	300
1950[#] *50*	6	700
2315 *50*	4	350
2829 *50*	4	190

[†] At 20′ (c.m.).
[‡] Taken by 1976De24 from compilation by 1973EnVA.
[#] 1870 (1966Ri04).