^{40}Ca(t,α) 1966Hi06

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

1966Hi06: E=9.57 MeV triton beam was produced from the Aldermaston Tandem accelerator. Targets were 50 to 100 μg/cm^2 natural calcium evaporated onto thin carbon backings of about 8 μg/cm^2. Reaction products were momentum-analyzed with a 24-gap multi-angle spectrograph and detected in nuclear emulsion plates. Measured $\sigma(\theta)$. Deduced levels, J, π, L-transfers from DWBA analysis.

Others:

1968Sa09: E=13 MeV. Measured $\sigma(\theta)$ for g.s. and 2816.

1991Pi09: E=33 MeV. Measured $\sigma(\theta)$. DWBA analysis.

All data are from 1966Hi06, unless otherwise noted.

^{39}K Levels

E(level)[†]	L	Relative σ (max)[‡]	Comments
0	2	65.6	Other σ: 1.3 mb/sr *1* at 20° (1968Sa09). S factor=3.5 (1968Sa09).
2526	0	51.0	
2817	3	16.5[@]	Other σ: 0.85 mb/sr *10* at 20° (1968Sa09). S factor=0.30 (1968Sa09).
3021		0.8	
3603	(2)	1.1	
3879	(2)	1.2	
3935		0.6	
4078[&]		3.5	
4092[&]			
4122		0.9	
4472		0.7	
4511		0.9	
4678	(3)	2.1[@]	
4737		0.5	
4928		1.0	
5010		0.3	
5168		0.6	
5280 *20*	2	25.2[#]	
5330 *20*	(2)	1.8[#]	
5370 *20*		0.2	
5520 *20*		1.1	
5620 *20*	2	19.6	
5670 *20*		0.6[#]	
5740 *20*		0.9	
5810 *20*		0.9	
5850 *20*		2.1	
5910 *20*		0.5	
5960 *20*	(1)	5.5[@]	
6120 *20*	(1)	2.1[#]	
6210 *20*	(3)	1.9[@]	
6250 *20*		1.8	
6350 *20*	2	29.9[@]	
6500 *20*	(1)	6.7[#]	

[†] From 1966Hi06 above 5168; level energies up to 5168 are quoted by 1966Hi06 from (p,p′) data in 1958Sp88.

Continued on next page (footnotes at end of table)

^{40}Ca(t,α) 1966Hi06 (continued)

^{39}K Levels (continued)

‡ At 0°, except where noted.
# At 10°.
@ At 20°.
& 4080 and 4090 are not well resolved.