^{38}Ar(d,n) 1970Ha37

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

1970Ha37 (also 1970Fu01): E=5.6 MeV deuteron beam was produced from the 5.5-MeV Van de Graaff accelerator of the Hahn-Meitner-Institut Berlin. Target was 99.9% enriched ^{38}Ar gas. Neutrons were detected with liquid scintillators. Measured time-of-flight, $\sigma(\theta)$. Deduced levels, L-transfers, spectroscopic factors from DWBA analysis. Comparisons with available data. All data are from 1970Ha37, unless otherwise noted.

^{39}K Levels

E(level)[†]	L	(2J+1)C^{2}S[‡]	Comments
0	2	1.8	
2526	0	0.08	
2817	3	2.0	
3021	1	0.05	
3603[@]			
3879	3	≤0.4	E(level): unresolved doublet: 3879+3935.
4078	1	0.6	E(level): unresolved triplet: 4078+4092+4122.
4122[@]			
4472[@]			E(level): contaminated by ^{15}O line.
4678[@]			
4928	1	0.11	E(level): unresolved doublet: 4928+5010.
5010[@]			
5168[@]			
5280[@]			
5370[@]			E(level): contaminated by ^{15}O line.
5520[@]			
5670[@]			
5810[@]			
5850[@]			
5960[@]			
6120[@]			
6210[@]			
6250[@]			
6350[@]			
6560[@]			E(level): contaminated by ^{15}O line.
7272[@]			
7431[@]			
7451[@]			
7526[@]			
7620[#] *20*	1	0.15	
7720[#] *20*	1	0.24	
7780[#] *20*	1	0.13	

[†] Except for levels above 7600, all other energies are quoted by 1970Ha37 from Adopted Levels in 1967En05 evaluation.
[‡] Spectroscopic factor (2J+1)C^{2}S=[dσ/dΩ(exp)]/N×[dσ/dΩ(DWBA)], where N is the normalization factor with N=1.48 in 1970Ha37.
[#] From 1970Ha37, probably unresolved multiplet.
[@] From figure 2 of 1970Ha37, tentative population.