

$^{40}\text{Ar}(\text{d},\alpha)$ 1971Su05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 152, 1 (2018)	30-Sep-2017

1971Su05: E=11.4 MeV deuteron beam was produced from the Osaka University cyclotron. Target was natural argon gas. Reaction products were detected with two surface-barrier silicon detectors (FWHM=70 keV). Measured $\sigma(\theta)$. Deduced levels, J, π , L-transfers from DWBA analysis.

Others: **2012En01** (E<8.4 MeV), **2011En01** (E=8.4 MeV), **1963Wi13** (E=1.8-15.5 MeV); measured reaction products.

 ^{38}Cl Levels

E(level)	L	σ (μb) [†]	Comments
0	1	227	
670	5 [‡]	219 [@]	
760	3 [‡]	219 [@]	
1310	5	58	
1670	3	79	E(level),J ^π : (4 ⁻) proposed by 1971Su05 ; 3 ⁻ for a level at 1617 and (1,2) ⁻ for 1692 in Adopted Levels.
1820	0	538	E(level),J ^π : 1 ⁺ proposed by 1971Su05 ; not seen in other studies.
1990	2	523	E(level),J ^π : (3 ⁺) proposed by 1971Su05 ; 1 ⁺ for a level at 1942 level in Adopted Levels.
2510	(0+2) [#]	250	
2810	(0+2) [#]	1015	
2970			

[†] Summed cross section from 32°–98°.

[‡] 5+3 for 670+760 doublet.

[#] 90% L=2, 10% L=1.

[@] 219 for 670+760 doublet.