

$^{38}\text{Ar}(e,e')$ 1994Fo03

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

1994Fo03: E=25.5-63.0 MeV electron beams were produced from the Darmstadt Linear Accelerator (DALINAC). Target was enriched argon gas (96.2% in ^{38}Ar). Scattered electrons were detected with a scintillation counter hodoscope. Measured $d\sigma/d\Omega$ at $\theta=117^\circ, 153^\circ$. Deduced levels, transition multipolarities and strengths from PWBA analysis. Comparisons with shell-model calculations.

 ^{38}Ar Levels

Transition multipolarities and strengths are deduced from PWBA analysis ([1994Fo03](#)).

E(level) [†]	J π [‡]	Mult. [#]	B(M1)	Comments
7381	(1 ⁺)	M1	0.21 4	
7721	(1 ⁺)	M1	0.15 4	
7877	(1 ⁺ ,2 ⁺)	M1,E2	0.56 5	B(E2)=0.14 4.
8240	(1 ⁻)	E1		
8313	(1 ⁺)	M1	0.14 3	
8409	(2 ⁺)	E2		
9431	(1 ⁺)	M1	0.20 5	
9603	(1 ⁻)	E1		
9645	(1 ⁻)	E1		
10058	(1 ⁻)	E1		
10118	(1 ⁻)	E1		
10207	(1 ⁺)	M1	0.14 4	
10495	(1 ⁺)	M1	0.13 4	
10673	(2 ⁻)	M2		B(M2)=0.29 6.
11556	(1 ⁺)	M1	0.16 5	
11716	(1 ⁺)	M1	0.17 5	
11855	(1 ⁺)	M1	0.19 5	
12000	(1 ⁺)	M1	0.14 4	
12134	(1 ⁺)	M1	0.15 4	
12369	(1 ⁺)	M1	0.15 5	
13891	(1 ⁺)	M1	0.15 4	
13967	(1 ⁺)	M1	0.16 5	
14066	(1 ⁺)	M1	0.29 5	
14206	(1 ⁺)	M1	0.21 6	
14924	(1 ⁻)	E1		

[†] Uncertainty=8 to 15 keV.

[‡] From deduced transition multipolarities.

[#] For several levels, next possible multipolarity is also listed by [1994Fo03](#) with χ^2 value.