

$^{36}\text{Ar}(\text{d,t})$  1970Wh04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, John Cameron and Balraj Singh		NDS 112,2715 (2011)	20-Oct-2011

**1970Wh04:** E=21.0,21.6 MeV deuteron beams with intensities of 20 nA to 750 nA produced from the Yale MP tandem Van de Graaff accelerator. Target: a  $^{36}\text{Ar}$  target. Detector: a  $\Delta E$ -E telescope of silicon barrier detectors ( $140\mu$  and  $530\mu$ ) for detecting tritons. Measured  $\sigma(E_t, \theta)$ . Deduced level energies, L for levels of 1180, 2635, 2985 and 3200 keV.

 $^{35}\text{Ar}$  Levels

Target  $^{36}\text{Ar}$   $J^\pi=0^+$ .

Spectroscopic factor  $C^2S$ :  $N \cdot C^2S = \sigma(\theta)^{\text{exp}} / \sigma(\theta)^{\text{DWBA}}$ , where  $N=3.33$  in 1970Wh04.

E(level) <sup>†</sup>	L <sup>‡</sup>	C <sup>2</sup> S	Comments
0		3.4	
1180 10	0	1.4	
1700	(2)	<0.2	E(level): very weak in 1970Wh04.
2635 20	(1,2)		C <sup>2</sup> S: (0.11,0.032) for $J^\pi=3/2^-$ ; (0.5) for $J^\pi=3/2^+$ .
2985 20	2	2.6	
3200 20	3	0.11,0.33	

<sup>†</sup> From 1970Wh04.

<sup>‡</sup> From the comparison of the DWBA predictions with data.