

$^{36}\text{Ar}(\text{p},^3\text{He})$  1969Br21

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, Balraj Singh		NDS 113, 1563 (2012)	28-May-2012

1969Br21:  $^{36}\text{Ar}(\text{p},^3\text{He})$  E=45 MeV,  $^{36}\text{Ar}$  99.6%-enriched target. Used two telescopes each consisting In  $\Delta\text{E}$ -E-E detectors of phosphorus-diffused silicon type (for  $\Delta\text{E}$ ) and Si(Li) type (for the two E detectors). The first two  $\Delta\text{E}$ -E detectors are operated In coincidence and the third E one is operated In anticoincidence (to eliminate long-range particles). Measured angular distribution In between  $10.0^\circ$  and  $60.5^\circ$ . Used DWBA fit (code DWUCK). Also studied  $^{36}\text{Ar}(\text{d},\alpha)$  – see respective dataset.

 $^{34}\text{Cl}$  Levels

E(level)	$J^\pi^\dagger$	$L^\ddagger$	E(level)	$J^\pi^\dagger$	$L^\ddagger$	E(level)	$J^\pi^\dagger$	$L^\ddagger$	E(level)	$J^\pi^\dagger$	$L^\ddagger$
0.0	$(0)^+$	0	2162 <sup>#</sup>	$(2)^+$	2	3940 40	$(0)^+$	0	6160 & 40	$(2)^+$	2
469 <sup>#</sup>			2600 30			4670 40	$(3^-)$	(3)	7070 40		
1231 <sup>#@</sup>			3130 30			4970 & 40	$(0)^+$	0			
1891 <sup>#@</sup>			3350 50	$(2)^+$	2	5600 40					

<sup>†</sup> Isobaric analog state of  $^{34}\text{Ar}$  state from  $^{36}\text{Ar}(\text{p},\text{t})$  reaction also studied by 1969Br21 (for the  $^{36}\text{Ar}(\text{p},\text{t})$  reaction  $J_f=L$  and  $\pi_f=(-1)^{J_f}$ ).

<sup>‡</sup> From DWBA analysis (1969Br21).

<sup>#</sup> From 1967En05.

<sup>@</sup> Weakly populated (1969Br21).

<sup>&</sup> Doublet state (1969Br21).