

$^{42}\text{Ar}(\text{p,p}')$  2001Sc01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen <sup>#</sup> and Balraj Singh		NDS 135, 1 (2016)	31-May-2016

**2001Sc01:** E=33 MeV/nucleon  $^{42}\text{Ar}$  beam was produced from via fragmentation of a 70 MeV/nucleon  $^{48}\text{Ca}$  beam in a  $^9\text{Be}$  target at the National Superconducting Cyclotron Laboratory.  $(\text{CH}_2)_n$  target. Protons were detected by silicon  $\Delta\text{E-E}$  telescopes. Measured energies and  $\sigma(\theta)$ . Deduced  $\beta_2$  for first  $2^+$  state in  $^{42}\text{Ar}$  from DWBA calculations and experimental cross sections.

 $^{42}\text{Ar}$  Levels

E(level)	$J^\pi$	Comments
0	$0^+$	
1208	$2^+$	$\beta_2=0.325$