

$^{32}\text{S}(\alpha, \text{p})$  1973Go16

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

**1973Go16:** E=19.991, 20.0 and 20.28 MeV alpha beam produced from the University of Notre Dame FN tandem Van de Graaff accelerator. A natural sulfur target prepared by vacuum evaporation of CdS onto 20  $\mu\text{g}/\text{cm}^2$  carbon backings. Recoils analyzed with magnetic spectrographs at 15°, 30°, 70°, 90° and 120°; nuclear track plates at the focal planes of spectrographs for detecting protons. Measured  $\sigma(E_p, \theta)$ . Deduced levels.

**1971Au07:** E=28.8 MeV alpha beam of 0.1-0.5  $\mu\text{A}$  produced from the Naval Research Laboratory (NRL) isochronous cyclotron. Sulfur target made by evaporating natural PbS onto a 30  $\mu\text{g}/\text{cm}^2$  carbon backing, effective  $^{32}\text{S}$  thickness 163  $\mu\text{g}/\text{cm}^2$ . Two counter telescopes for detecting protons, overall FWHM=250 keV. Measured  $\sigma(E_p, \theta)$ . Deduced levels,  $J^\pi$  and L for levels of 0 and 1763 keV from DWBA analysis.

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

E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>	L <sup>‡</sup>	E(level) <sup>†</sup>	E(level) <sup>†</sup>	E(level) <sup>†</sup>
0	3/2 <sup>+</sup>	2	6492 4	8075 5	9334 5
1217.4 26			6656 3	8104 4	9376 4
1760.1 24	5/2 <sup>+</sup>	2	6681 3	8121?	9476 4
2644.9 23			6783 3	8172 4	9508 4
2693?			6802 4	8210 5	9525?
3002 3			6867?	8246 4	9712 5
3158.2 25			6894 3	8271 4	9740 4
3943.7 23			6948 4	8292?	9799 5
4056.9 27			6986 4	8321 4	9836 5
4110.2 29			7105	8399 4	9870?
4177.5 24			7121 4	8429 4	9969 5
4346.6 24			7179 4	8482 4	9992?
4624 3			7210 4	8505 5	10009?
4770.8 26			7229 4	8532 4	10075 5
4883.1 29			7301?	8568 4	10098?
5162 3			7348 5	8617 4	10117?
5207 4			7418 5	8654 4	10163 5
5402 3			7503 4	8698?	10179 5
5576?			7568 4	8721 4	10218 5
5592 3			7587 4	8786 4	10395 6
5633 3			7650 4	8840 4	10443?
5678 4			7671?	8888 4	10463 5
5809 4			7730?	8958 5	10517 6
5823 3			7743 4	8997 4	10548 6
5927 4			7776 5	9027 4	10580 6
6084.2 29			7801 4	9086 4	10643 5
6140 4			7868 4	9109 5	10717?
6225 4			7901 4	9160 4	10732 5
6379 4			7979 4	9194 4	10759 6
6402 4			8001 4	9265 4	
6427?			8019 4	9316 4	

<sup>†</sup> From 1973Go16.

<sup>‡</sup> From 1971Au07.