^{1}H(^{35}Cl,α):res 2011Mo12

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, John Cameron and Balraj Singh	NDS 113, 1 (2012)	31-Dec-2011

^{35}Cl beam, E=21.70-21.90 MeV produced by the Holifield Radioactive Ion Beam Facility (HRIBF) bombarded a hydrogen gas filled scattering chamber. α particles were detected by the SIDAR silicon detector array, in coincidence with heavy recoils detected by a Micron Type S1 detector. ^{1}H(^{35}Cl,α)^{32}S events were identified in plots of the energy detected in the SIDAR detectors versus the energy detected in the S1 detector gated on a Time to Amplitude Converter (TAC) peak. Measured Eα, particle-α coincidence, resonance. Deduced stopping power, resonance strength, angular distribution.

Resonance strengths deduced using the stopping power calculated by the ORNL code STOPIT.

^{36}Ar Levels

E(level)	J$^{\pi}$	Comments
9117	1^{-}	E(level),J$^{\pi}$: from Adopted Levels. Measured Ep(c.m.)=610 keV. Strength $\omega\gamma_{p,\alpha}$=0.018 eV *2*, using an isotropic distribution and $\omega\gamma_{p,\alpha}$=0.012 eV *2* using the angular distribution estimated by the R-matrix code MULTI for on-resonance beam energy, E^{35}Cl==21.83, 21.85, 21.87 and 21.90 MeV.