^{109}Ag(p,p),(p,n) IAR 1969Sh06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev	NDS 113, 1315 (2012)	1-Aug-2011

The proton beams were accelerated E(p)=5.9-7.25 MeV by the University of Texas EN Tandem Van de Graff accelerator. 99.1% enriched ^{109}Ag target was used. For (p,p) experiment, preliminary data were taken using a single surface-barrier detector at room temperature at a laboratory scattering angle of 155°. Further data were recorded using 4 lithium-drifted detectors at laboratory angles 90°, 120°, 150° and 170°. Overall energy resolution was ≈30 keV. For (p,n) experiment, neutrons were detected with a polyethylene shielded ^{3}He long counter placed on the scattering chamber lid at 90° to the beam and ≈ 6in from the target. Measured: excitation functions at 90°. Deduced: Resonance energies, total decay width and proton orbital-angular-momenta transfer values.

Others: 1978Lo14, 1967Ha02.

^{110}Cd Levels

E(level)†	$T_{1/2}$‡	Comments
15356	31 keV	E(p)(c.m) = 6437 keV.
15586	36 keV	E(p)(c.m) = 6667 keV. Possible IAS of ^{110}Ag(236.9) level.
15644	≈15 keV	E(p)(c.m) = (6725) keV.
15679	17 keV	E(p)c.m) = 6760 keV. Possible IAS of ^{110}Ag(338.9) level.
15737	23 keV	E(p)(c.m) = 6818 keV. Possible IAS of ^{110}Ag(381.2) level.
15780	25 keV	E(p)(c.m) = 6861 keV. Possible IAS of ^{110}Ag(424.7) level.
15877	45 keV	E(p)(c.m) = 6958 keV. Possible IAS of ^{110}Ag(525.7 or 527.5) level.
15943	15 keV	E(p)(c.m) = 7024 keV. Possible IAS of ^{110}Ag(594) level.
16004	10 keV	E(p)(c.m) = 7085 keV. Possible IAS of ^{110}Ag(653.9) level.

† Energy is sum of S(p)=8919.3 *16* (2003Au03) and E(p)(C.M.) for resonance.
‡ Total decay width (keV).