

**Coulomb excitation 1999Ib01**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 149, 1 (2018)	1-Jan-2018

**1999Ib01:**  $^{197}\text{Au}(^{39}\text{P},^{39}\text{P}'\gamma)$ : E=46.3 MeV/nucleon  $^{39}\text{P}$  beam was produced by fragmentation of E=70 MeV/nucleon  $^{48}\text{Ca}$  primary beam from the K1200 cyclotron at NSCL on a 285 mg/cm<sup>2</sup>  $^9\text{Be}$  production target. Fragments were separated by the A1200 separator and identified based on energy loss in a Si PIN detector and time of flight. Reaction target was 532 mg/cm<sup>2</sup>  $^{197}\text{Au}$ . Scattered beam particles were detected in a fast/slow plastic phoswich detector and  $\gamma$  rays were detected with an array of 38 cylindrical NaI(Tl) detectors. Measured  $E_\gamma$ ,  $I_\gamma$ , particle- $\gamma$ -coin. Deduced B(E2). Systematics of neighboring isotopes.

 $^{39}\text{P}$  Levels

E(level)	$J^\pi$ <sup>†</sup>	Comments
0	(1/2 <sup>+</sup> )	
976 17	(5/2 <sup>+</sup> )	B(E2) $\uparrow$ =0.0097 30

<sup>†</sup> From Adopted Levels.

 $\gamma(^{39}\text{P})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.
976 17	976	(5/2 <sup>+</sup> )	0	(1/2 <sup>+</sup> )	[E2]

**Coulomb excitation 1999Ib01**Level Scheme