## <sup>40</sup>Ca(<sup>12</sup>C,<sup>12</sup>B) **1988Vo06**

		History	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 140, 1 (2017)	30-Sep-2015

1988Vo06: E=70 MeV/nucleon <sup>12</sup>C beam. Measured  $\sigma(E,\theta)$  with the spectrometer SPEG at GANIL (FWHM $\approx$ 300 keV). Deduced levels, J,  $\pi$ .

## <sup>40</sup>Sc Levels

1988Vo06 identify population of 1<sup>+</sup> states in 4.9-5.0 MeV region at low angles; a 6<sup>-</sup> state near 6 MeV at larger angles; and strong low-lying states of unnatural parity characterized by L=1, L=3 and L=5 transitions giving rise to 2<sup>-</sup>, 4<sup>-</sup> and 6<sup>-</sup> states, respectively. Population of a spin-flip dipole resonance ( $J^{\pi}=0^{-},1^{-},2^{-}$ ) is suggested by strong enhancement of cross section in the 7-15 MeV range.

E(level)	$J^{\pi^+}$	L <sup>†</sup>
0 <sup>‡</sup>	4-	(3)
30‡	(3-)	
740 <sup>#</sup>	(2 <sup>-</sup> )	(1)
890 <mark>#</mark>	(5 <sup>-</sup> )	

<sup>†</sup> As proposed by 1988Vo06, parentheses are added by the evaluator. All assignments are the same in Adopted Levels.

 $^{\ddagger}$  g.s. and 30 form a weak unresolved group.

<sup>#</sup> 740 and 890 are unresolved and form a dominant structure in the spectrum.