$$^{1}H(^{40}S,^{40}S')\quad\textbf{1999Ma63}$$

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

Beam=^{40}S from fragmentation of ^{48}Ca beam with a Be target. Target=CH$_2$.

1999Ma63 (also 1999Su05,2000Bl25): E=30 MeV/nucleon ^{40}S secondary beam was produced by fragmentation of a primary 60 MeV/nucleon ^{48}Ca beam provided by the K1200 cyclotron at NSCL on a 285 mg/cm^2 Be target. Fragments were separated using the A1200 fragment separator. The secondary target was a 2 mg/cm^2 (CH$_2$)$_n$ foil. Incident beam and scattered fragments were detected by a ΔE-E phoswich scintillator at 0° after the target and recoiling protons were detected with an array of eight telescopes of a 300 μm Si strip detector backed by a 500 μm Si detector covering angles from 56° to 89°. Measured σ(Ep,θ). Deduced levels, quadrupole deformation parameter from DWBA analysis.

$$^{40}S\ \text{Levels}$$

E(level)	J$^\pi$	Comments
0	0$^+$	
860 90	2$^+$	β_2=0.35 5 (1999Ma63)
		E(level),J$^\pi$: from 1999Ma63.