## <sup>30</sup>Si(pol <sup>3</sup>He, <sup>3</sup>He), (<sup>3</sup>He, <sup>3</sup>He') 1986Ha24

	Histor	у	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia, A. Chakraborty	NDS 197,1 (2024)	31-May-2024

Others:

1970Mc12 – (<sup>3</sup>He,<sup>3</sup>He'), E=8.0, 7.0 MeV; measured  $\sigma(\theta)$ .

1970Mo01 – (<sup>3</sup>He, <sup>3</sup>He'), E=15.0 MeV; measured  $\sigma(\theta)$ .

1987Pe09: E=36 MeV; measured  $\sigma(\theta)$ .

1984Mc12: (pol <sup>3</sup>He, <sup>3</sup>He), <sup>30</sup>Si target (~95% enriched and 390  $\mu$ g/cm<sup>2</sup> thick), E=33.4 MeV;  $\Delta$ E-E semiconductor detector telescopes, measured  $\sigma(\theta)$ , A( $\theta$ ); deduced levels, spin, parity.

1986Ha24: (<sup>3</sup>He,<sup>3</sup>He') – self-supporting <sup>30</sup>Si target (95% enriched, thickness=0.39 mg/cm<sup>2</sup>),  $E_{^3He}$ =17.0 MeV; two sets of Si surface barrier detectors, each of three with 100, 200, and 1000  $\mu$ m thicknesses; measured the scattered <sup>3</sup>He from 16° to 60° in 3° steps at laboratory angle,  $\sigma(\theta)$ , vector analyzing power. DWBA analysis.

## <sup>30</sup>Si Levels

E(level) <sup>†</sup>	$J^{\pi \dagger}$	Comments
0	$0^{+}$	
2235	2+ <b>‡</b>	
3498	$2^{+}$	
$3.7 \times 10^{3}$	$1^{+}$	E(level): doublet in 1986Ha24, was not resolved.
$4.8 \times 10^{3}$	$2^{+}$	E(level): doublet in 1986Ha24, was not resolved.
5488	3-‡	

<sup>†</sup> From the Adopted Levels, except where otherwise noted. Energies are rounded to keV.

<sup>‡</sup> In 1984Mc12 (pol <sup>3</sup>He, <sup>3</sup>He), based on measured  $d\sigma/d\Omega$ , DWBA analysis, and vector analyzing power.