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**$^{56}\text{Fe}({}^3\text{He}, {}^3\text{He}')$     1980Le25, 1975Ar16, 1973Ma04**

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Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Huo Su, Yang Dong		NDS 112, 1513 (2011)	29-Oct-2009

1980Le25: E=108.5 MeV, GMR, DWBA analysis.

1975Ar16: E=80 MeV, giant resonances, DWBA analysis.

1973Ma04: E=33.45, 53.4 MeV, measured  $\sigma(\theta)$ , DWBA analysis.

1975Cl07: E=33.4, 53.4, 82.7 MeV, coupled-channel analysis, deduced deformation parameters.

For deformation parameters deduced from polarized-beam work, see 1983Le03.

Other: 1967Fl02.

All data from 1973Ma04, except as noted.

**$^{56}\text{Fe}$  Levels**

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E(level)	$J^\pi \ddagger$	$L^\dagger$	$\beta_L @$	Comments
0				
850		2	0.217	
2650				
4509		3	0.155	
$13.5 \times 10^3 \#$	$2^+, 4^+$			$\Gamma = 1.0 \text{ MeV}$ 5
$16.6 \times 10^3 \#$	$3^-$	2	0.19	$\Gamma = 6.0 \text{ MeV}$ 5 GQR (1975Ar16).
$17.0 \times 10^3$	2			$\Gamma = 3.6 \text{ MeV}$ 2 GMR (1980Le25).

$\dagger$  From  $\sigma(\theta)$  fits with DWBA.

$\ddagger$  From giant resonance analyses (1975Ar16).

# From 1975Ar16.

@ From DWBA.