

$^{56}\text{Fe}(\text{p,d}),(\text{pol p,d})$ 1989Po14,1980Ho18,1965Sh06

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 109, 787 (2008)	30-Apr-2007

1989Po14: E=24.6 MeV; polarized protons; measured $\sigma(\theta)$ and analyzing powers. DWBA analysis.

1980Ho18: E=65 MeV, polarized protons; enriched target (99%); counter telescope, FWHM \approx 200 keV; measured $\sigma(\theta)$ and analyzing powers; DWBA analysis.

1965Sh06: E=28 MeV; isotopic target; counter telescope, overall resolution: \approx 100 keV; measured $\sigma(\text{ED},\theta)$, DWBA analysis.

2001Ku04: E=28 MeV; natural target (91.8% ^{56}Fe); counter telescope, overall resolution: \approx 50 keV; measured $\sigma(\text{ED},\theta)$, DWBA analysis.

For studies of the J dependence of the cross section, see 1962Go16, 1964Sh12, and 1967GI01.

See also 1964Le10 and 1966Wh02.

All data are from 1989Po14, except as noted.

 ^{55}Fe Levels

E(level)	$J^\pi\&$	L	C ² S	E(level)	$J^\pi\&$	L	C ² S	E(level)	$J^\pi\&$	L	C ² S
0.0 [†]	3/2 ⁻	1	0.69	1410	7/2 ⁻	3	2.41	4830 [‡] 20	3/2 ⁺	2	0.97
411 [†]	1/2 ⁻	1	0.28	2144 [#]	5/2 ⁻ [#]	3 [#]	0.43 [#] 6	7610 [#]	5/2 ⁻ [#]	3 [#]	1.61 [#] 21
931 [†]	5/2 ⁻	3	0.33	2940 20	7/2 ⁻	3	0.87	7780 [‡] @ 50	7/2 ⁻	3	0.82
1320	7/2 ⁻	3	0.41	4450 [‡] 20	1/2 ⁺	0	0.51				

[†] From 1980Ho18.

[‡] From 1965Sh06.

[#] From 2001Ku04.

@ 1965Sh06 indicate that the level is the analog of 126 (7/2⁻) in ^{55}Mn .

& From 1989Po14 based on $\sigma(\text{E(d)},\theta)$ and analyzing power.