^{54}Fe(n,n′) 1986Me01,1982De45,1971Bo07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde	NDS 121, 1 (2014)	20-Jun-2014

1986Me01, 1983Me21: E=11, 26 MeV. Beam Swinger tof spectrometer, measured $\sigma(\theta)$; microscopic and collective model DWBA analyses.
1971Bo07: E=4.0, 5.1 and 5.6 MeV. tof, measured σ(E,θ), σ(E,E(n)′,θ), deduced total elastic cross section.
1982De45: E=8-14 MeV. Deduced deformation parameters from differential cross sections.
See 1985PeZW for (pol n,n′) at E=10, 14, and 17 MeV.
All data are from 1986Me01, except as noted.

^{54}Fe Levels

E(level)	J^{π} †	Comments
0	0^+	
1410	2^+	β_L=0.179 *2* at E(n)=11 MeV, β_L=0.193 *2* at E(n)=26 MeV. β_L=0.20 *1* (1982De45).
2540	4^+	β_L=0.079 *3* at E(n)=11 MeV, β_L=0.124 *4* at E(n)=26 MeV.
2960	2^+	β_L=0.107 *2* at E(n)=11 MeV, β_L=0.121 *3* at E(n)=26 MeV.
3170	2^+	β_L=0.069 *2* at E(n)=11 MeV.
3300	4^+	β_L=0.078 *3* at E(n)=11 MeV.
3830	4^+	β_L=0.080 *3* at E(n)=11 MeV, β_L=0.122 *4* at E(n)=26 MeV.
4050	4^+	β_L=0.097 *2* at E(n)=11 MeV.
4270	4^+	β_L=0.078 23at E(n)=11 MeV.
4780	3^-	β_L=0.141 *2* at E(n)=26 MeV.
6400	3^-	β_L=0.167 *2* at E(n)=26 MeV.

† From DWBA+compound nucleus or coupled-channels analysis.