^{56}Fe(n,n′) 1986Me01,1985Gu01,1982De45

History

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

1982De45: E=8, 10, 12, 14 MeV, measured $\sigma(\theta)$, coupled channel calculation.
1985Gu01: E=14.6 MeV, measured E(E(n′) with tof.
1985Gu05: E=14.6 MeV, measured dσ/dΩ.
1986Me01: E=11, 26 MeV, FWHM: ≈200 keV at 11 MeV, ≈430 keV at 26 MeV, measured dσ/dΩ, DWBA analysis.
1975Hy01: E=14.1 MeV, measured σ(E(n′),θ).
For polarized beam data, see 1982Gu02.
For spherical optical potential parameters, see 1982El09.
All data are from 1986Me01, except as noted.
See also 1990Ol02.

^{56}Fe Levels

E(level)	L	Comments
0.0		
850	2	β_2=0.252 *18* for E(n)=11 MeV, β_2=0.292 *20* for 26 MeV (1986Me01), β_2=0.24 *1*, β_2R=1.07 fm *4* (1982De45), β_2=0.23 *1* (1975Hy01).
2090		β_4=0.079 *12* (1986Me01).
2660		β_2=0.062 *7* (1986Me01).
2960		β_2=0.040 *16* (1986Me01).
3120		β_4=0.110 *9* (1986Me01).
3370		β_2=0.035 *12* (1986Me01).
3600		β_2=0.263 *12* (1986Me01).
3830		β_2=0.047 *67* (1986Me01).
4120		β_4=0.100 *10* (1986Me01).
4400		β_2=0.059 *17* (1986Me01).
4510		β_3=0.200 *15* for E(n)=11 MeV, 0.201 *20* for 26 MeV (1986Me01).
≈8.3×10^3‡		Broad peak at ≈8300, assumed by the authors to include the 8130, 8243, and 8538 levels, with J=1, and seen in (γ,γ'). $\sigma(\theta)$ consistent with J^π=1$^+$, not with 1$^-$.
8.8×10^3† *2*		
9.8×10^3† *1*		
10.2×10^3† *1*		
12.44×10^3† *3*		
12.52×10^3† *3*		

† From 1985Gu01, possible components of M1 giant resonance.
‡ From 1985Gu05.