$^{58}\text{Fe}(\alpha,\alpha')$ **1970Br07**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Caroline D. Nesaraja, Scott D. Geraedts and Balraj Singh	NDS 111, 897 (2010)	12-Jan-2010

1992Du08: $E\alpha$=96 MeV, used total cross section data to determine mean square radii of matter distribution in mass 58 nuclei.

1989Ba53: $E\alpha$=25 MeV, FWHM about 150-250 keV; measured elastic and inelastic scattering cross sections, coupled-channel analysis. See their discussion for details of analysis and its dependence on the level coupling scheme used.

1970Br07: $E\alpha$=44 MeV, FWHM=180 keV; measured $\sigma(E\alpha',\theta)$, Austern-Blair model analysis.

1968Fu01: $E\alpha$=21 MeV, FWHM about 300 keV; measured elastic and inelastic scattering cross sections, DWBA analysis.

^{58}Fe Levels

E(level)	L	$\beta R^{\dagger}$
0.0		
810	2	0.91
1660	2	0.25
2070	4	
2570	4	0.25
3790	3	0.37
4450	3	0.39

† Deformation lengths from 1970Br07.