

substance: FeO (Fe_{1-x}O)

property: phonon dispersion, phonon wavenumbers

phonon dispersion spectrum: Fig. 1, density of states: Fig. 2.

wavenumbers of optical phonons

(ν/c) _{LO}	493.5 cm ⁻¹	RT	from IR spectrum	77P
	526.6(133) cm ⁻¹	RT	from phonon dispersion spectrum	77K
(ν/c) _{TO}	337.7 cm ⁻¹	RT		77P
	320.0(133) cm ⁻¹	RT		77K

References:

- 77K Kugel, G., Carabatos, C., Hennion, B., Prevot, B., Reviolevschi, A., Tocchetti, D.: Phys. Rev. B16 (1977) 378.
- 77P Prevot, B., Briellman, J., Meftah, M. P., Sieskind, M.: Phys. Status (a) 40 (1977) 503.

Fig. 1.

$\text{Fe}_{0.93}\text{O}$. Phonon dispersion curves. Experimental neutron scattering data and shell-model best fit [77K].

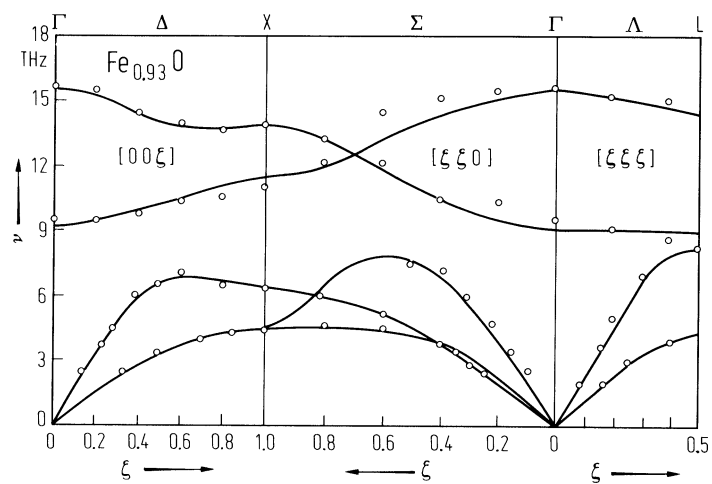


Fig. 2.

$\text{Fe}_{0.93}\text{O}$. Density of phonon states vs. frequency according to the dispersion curves of Fig. 1. Solid line and dotted line are the results using two slightly different models [77K].

