

**substance: CoO**

**property: phonon wavenumbers**

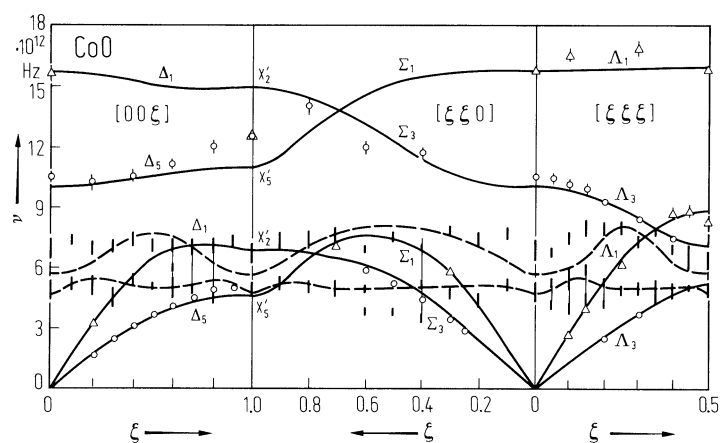
(ν/c) <sub>TO</sub>	262 cm <sup>-1</sup>	RT	IR reflectance	69P
	347...350 cm <sup>-1</sup>	RT	IR reflectance	65G
	347 cm <sup>-1</sup>		neutron scattering, Figs. 1, 2	68S
(ν/c) <sub>LO</sub>	552 cm <sup>-1</sup>	RT		69P
	544...547 cm <sup>-1</sup>	RT		65G
	520 cm <sup>-1</sup>			68S

**References:**

- 65G     Gielisse, P. J., Plendl, J. N., Mansur, L. C., Marshall, R., Mitra, S. S., Mykolojewicz, R., Smakula, A.: J. Appl. Phys. 36 (1965) 2446.
- 68S     Sakurai, J., Buyers, W. J. L., Cowley, R. A., Dolling, G.: Phys. Rev. 167 (1968) 510.
- 69P     Plendl, J. N., Mansur, L. C., Mitra, S. S., Chang, I. F.: Solid State Commun. 7 (1969) 109.

**Fig. 1.**

CoO. Phonon and magnon dispersion curves at 110 K. Circles represent transverse phonon modes and triangles are longitudinal phonon modes. The solid lines show a best fit shell model. The vertical bars represent broad peaks assigned to magnon dispersion and the dashed lines show a magnon model with next nearest neighbour interaction [68S].



**Fig. 2.**

CoO. Phonon and magnon dispersion curves at 330 K. Notation as in Fig. 1 for the phonon modes. The magnetic modes have split into the flat curves at  $4.8$  and  $\approx 7.8 \cdot 10^{12}$  Hz [68S].

