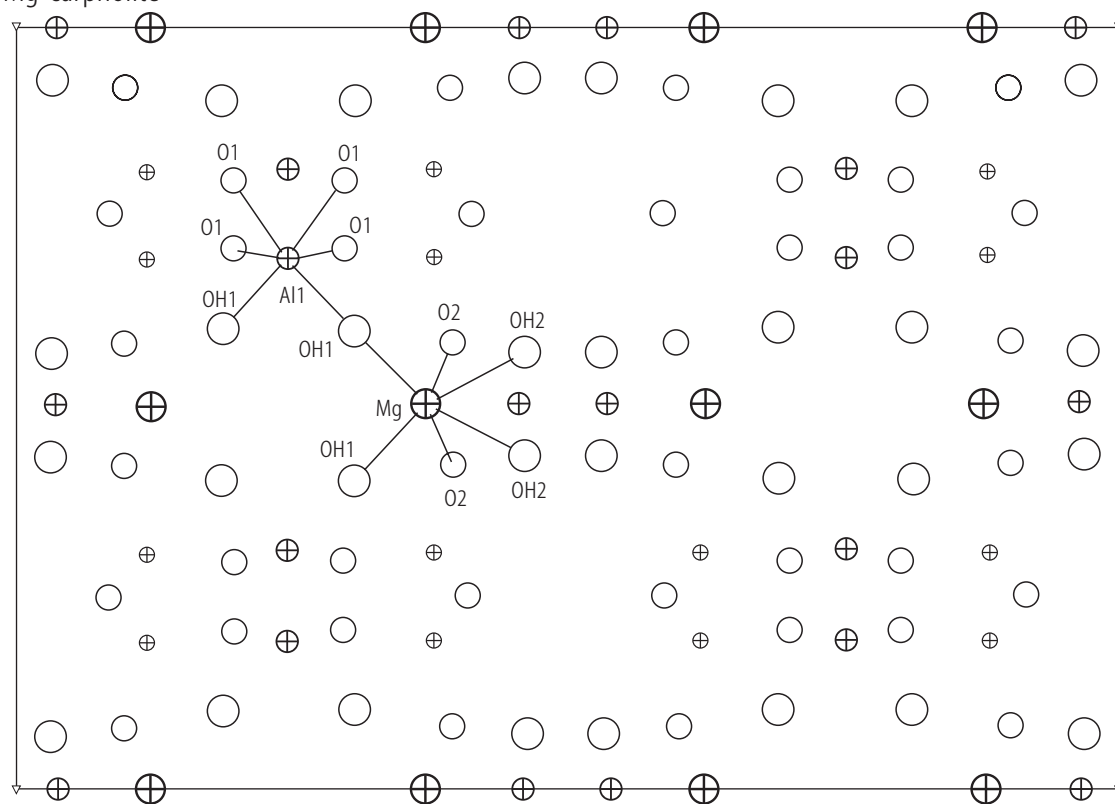


Mg-carpholite

**Fig. 1.** Mg-carpholite. A (001) projection (\oplus – Si; \oplus – Al; \oplus – Mg; small open circles – O; large open circles – OH) [81V1].

Shattuckite

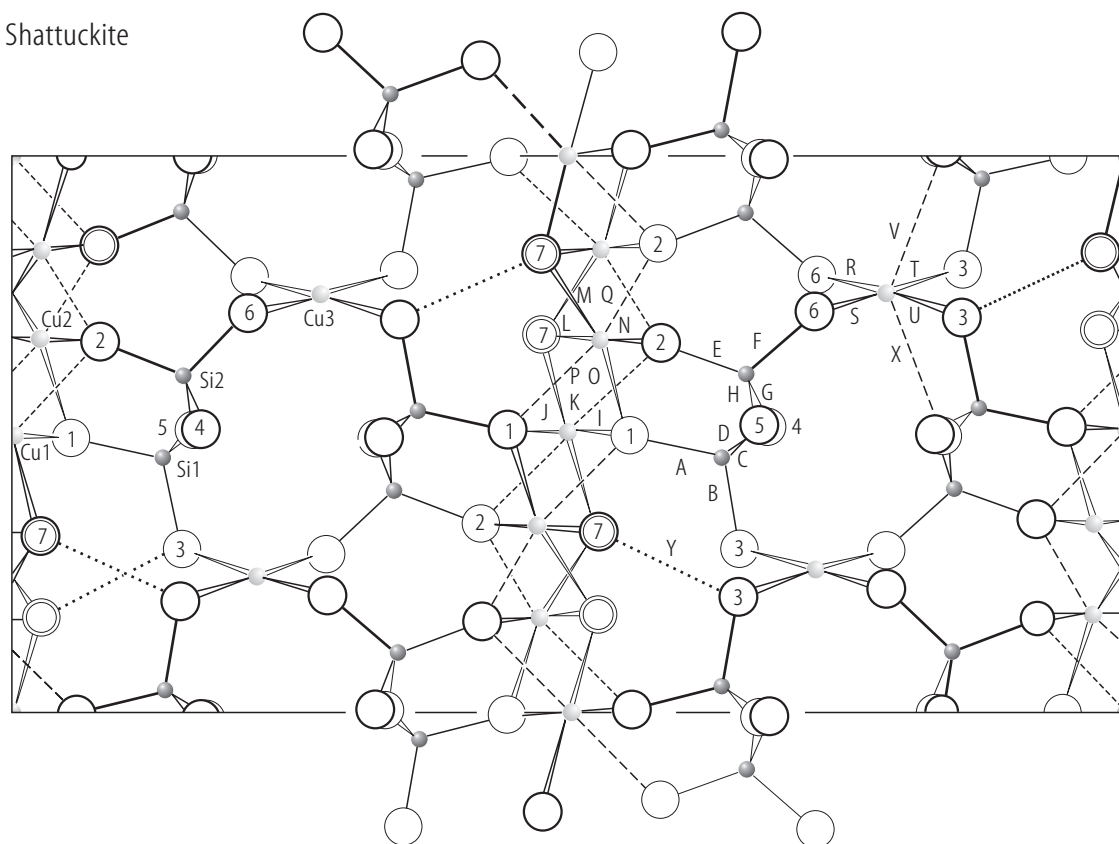


Fig. 2. Shattuckite. Crystal structure viewed along the *c*-axis (*b*-axis is horizontal). In the distorted octahedral Cu coordination, the longer apical bonds are dashed. Hydrogen bonds are dotted. Large double circles represent OH groups. Numbers indicate atoms as listed in Table 2b [77E1]. Letters refer to different bonds.

Shattuckite

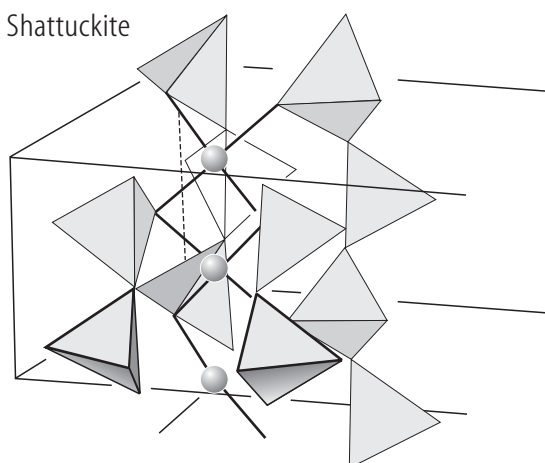


Fig. 3. Shattuckite (plancheite). View of portion of structure, showing the ladder-like manner in which square-planar coordinated Cu cross-links silicate chains from one triple layer to the next [77E1].

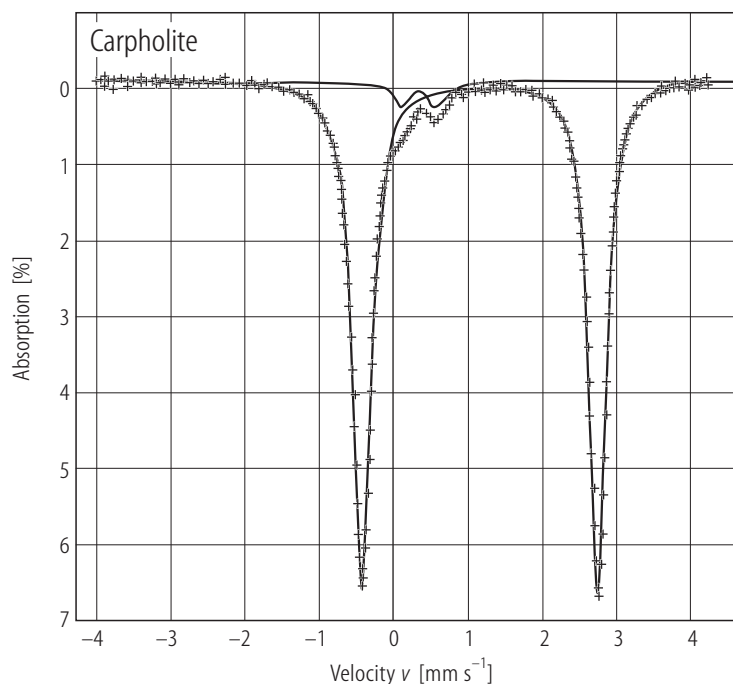


Fig. 4. Carpholite $(\text{Mg}_{1-x}\text{Fe}^{2+}_x)(\text{Al}_{2-y}\text{Fe}^{3+}_y)\text{Si}_2\text{O}_6(\text{OH},\text{F})_4$ with $x = 0.52$, $y = 0.05$. ^{57}Fe NGR spectrum at RT [96W1].

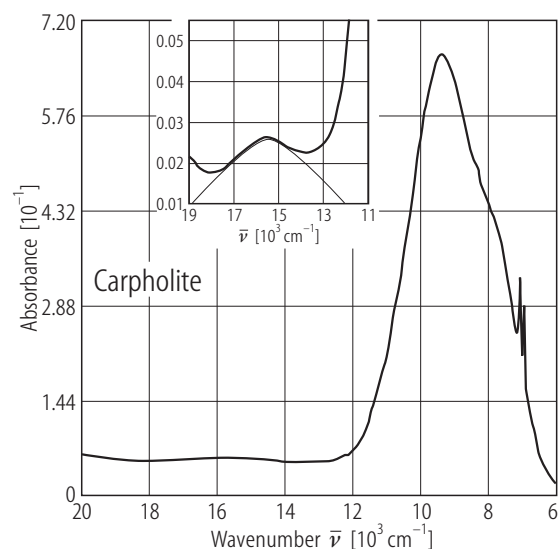


Fig. 6. Carpholite $(\text{Mg}_{1-x}\text{Fe}^{2+}_x)(\text{Al}_{2-y}\text{Fe}^{3+}_y)\text{Si}_2\text{O}_6(\text{OH},\text{F})_4$ with $x = 0.52$, $y = 0.05$. Diffuse reflectance spectrum [96W1]. The inset is an enlargement of the faint broad band between 18000 and 14000 cm^{-1} .

Fig. 5. Magnesiocarpholite⁴⁾. FTIR spectra in the 3000...4000 cm^{-1} (a) and 900...1150 cm^{-1} (b) spectral region. In (c) are shown the polarized Raman spectra in the OH-stretching region (1) c -axis horizontal and parallel to the polarization direction; (2) c -axis horizontal and normal to the polarization direction; (3) c -axis vertical and most developed crystal face parallel to the polarization direction; (4) c -axis vertical and most developed crystal face normal to the polarization direction [01F1]. - For Fig. 5 see next page.

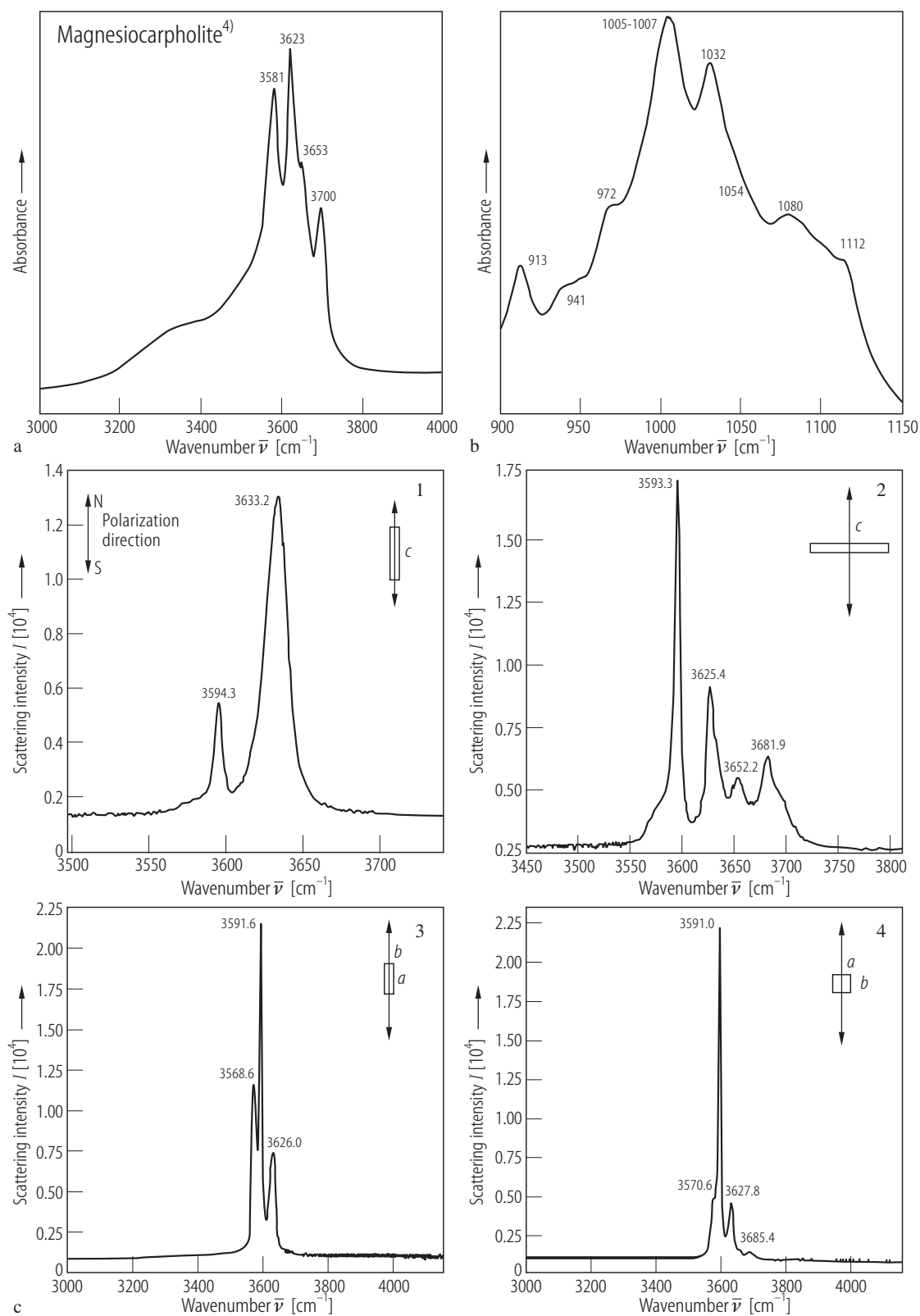


Fig. 5. For caption see previous page.