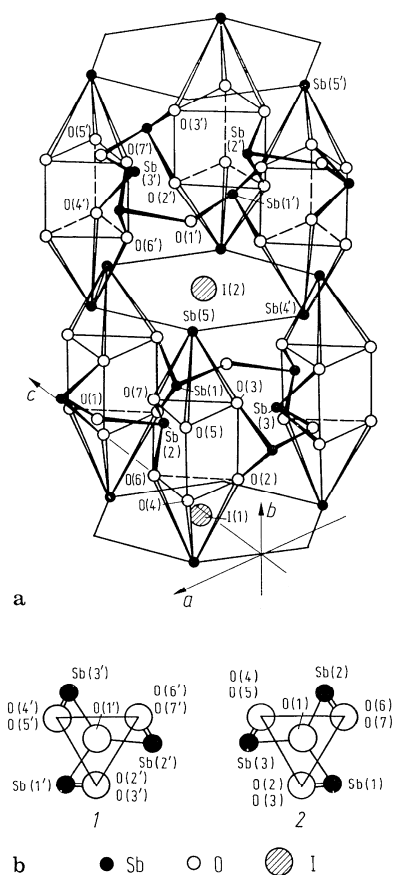
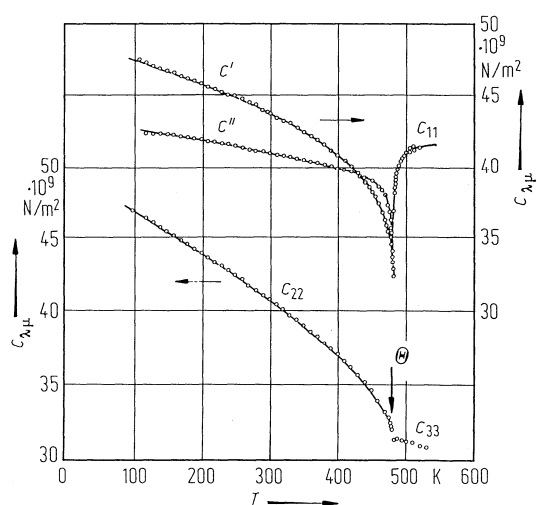


**Fig. M18-001.** Sb<sub>5</sub>O<sub>7</sub>I. Sb-I framework of polytypes [77Nit]. (a) 2MC and (b) 2MA. Viewed in *b* direction showing the typical Sb-I polyhedra. Approximate height of atoms: I(1): 0.0, I(2): 0.50, Sb(1) ... Sb(3): 0.25, Sb(1') ... Sb(3'): 0.75, Sb(4): 0.05, Sb(5): 0.45, Sb(4'): 0.55, Sb(5'): 0.95.

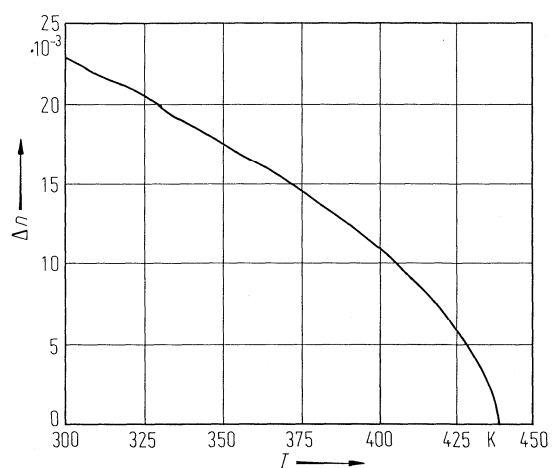


**Fig. M18-002.** Sb<sub>5</sub>O<sub>7</sub>I (polytype 2MC). (a): Perspective view of Sb-O slabs and their stacking [77Nit]. (b): Stacking units of [Sb<sub>3</sub>O<sub>7</sub>]<sup>5-</sup> [78Kra]. Polytype 2MC contains only one of these types, for example, type 2. In polytype 2MA, succeeding layers along *b* axis are alternately built up from units of type 1 and 2. Therefore, positions of Sb(1'), Sb(3') are different from those shown in Fig. a. See also Fig. M18-001.

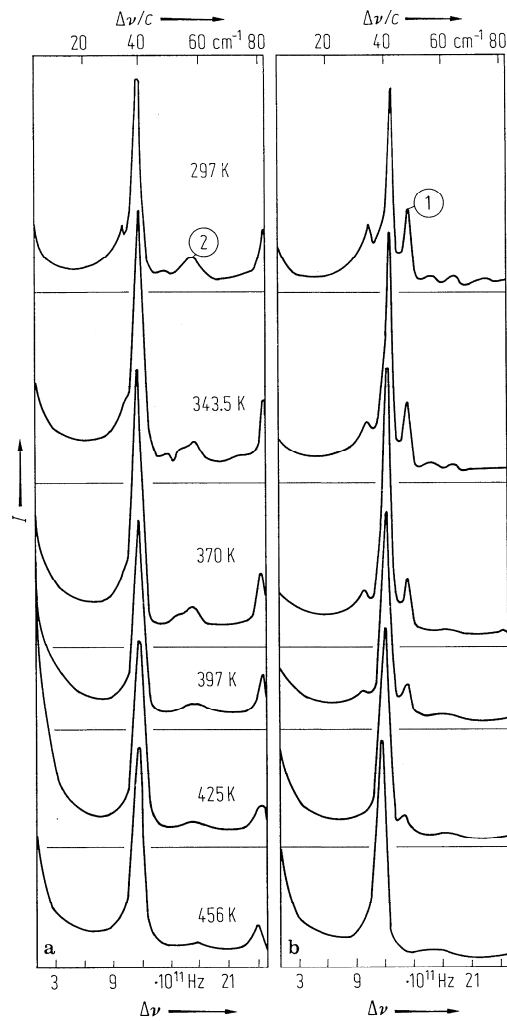


**Fig. M18-003.** Sb<sub>5</sub>O<sub>7</sub>I (polytype 2MC). Elastic stiffness  $c_{\lambda\mu}$  vs.  $T$  [80Reh], measured by the ultrasonic technique,  $f = 1.5$  or  $3.0 \cdot 10^7$  Hz.

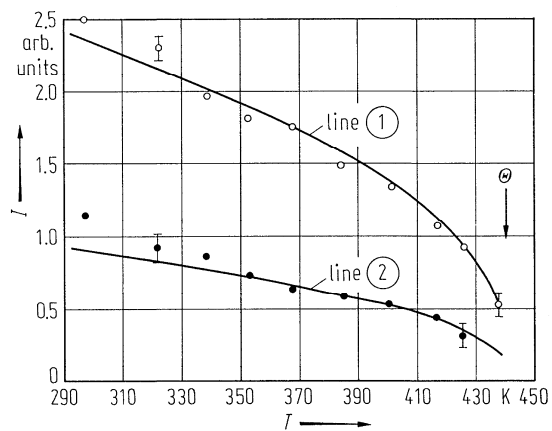
$$c' = (c_{33} + c_{55})/2 + \sqrt{(c_{33} - c_{55})^2/4 + c_{35}^2}; \quad c'' = (c_{11} + c_{55})/2 + \sqrt{(c_{11} - c_{55})^2/4 + c_{15}^2}.$$



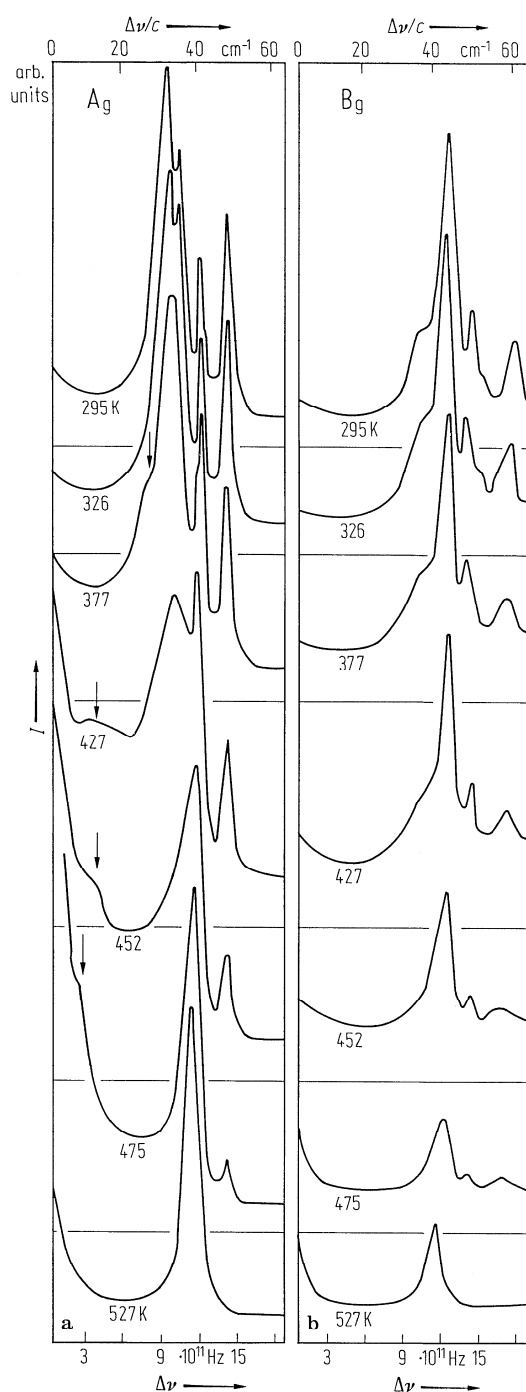
**Fig. M18-004.** Sb<sub>5</sub>O<sub>7</sub>I (polytype 2MA).  $\Delta n$  vs.  $T$  [86Bos].  $\Delta n$ : birefringence at  $\lambda = 632.8$  nm.



**Fig. M18-005.** Sb<sub>5</sub>O<sub>7</sub>I (polytype 2MA).  $I$  vs.  $\Delta\nu$  [79Pre].  $I$ : intensity of Raman scattering at low frequency region. Parameter:  $T$ .  $\Theta = 438$  K. Scattering geometries of (a)  $Z(XX)Y$  and (b)  $Z(YX)Y$ . See also Fig. M18-006.



**Fig. M18-006.** Sb<sub>5</sub>O<sub>7</sub>I (polytype 2MA).  $I$  vs.  $T$  [79Pre].  $I$ : Raman scattering intensity of the mode 1 and 2 in Fig. M18-005.



**Fig. M18-007.** Sb<sub>5</sub>O<sub>7</sub>I (polytype 2MA).  $I$  vs.  $\Delta\nu$  [76Pre].  $I$ : intensity of Raman scattering at low frequency region. Parameter:  $T$ .  $\Theta = 481$  K. (a): A<sub>g</sub> modes measured in a scattering geometry of Z(XX)Y. (b): B<sub>g</sub> modes measured in Z(XZ)Y. The strongly damped soft mode is indicated by arrows.