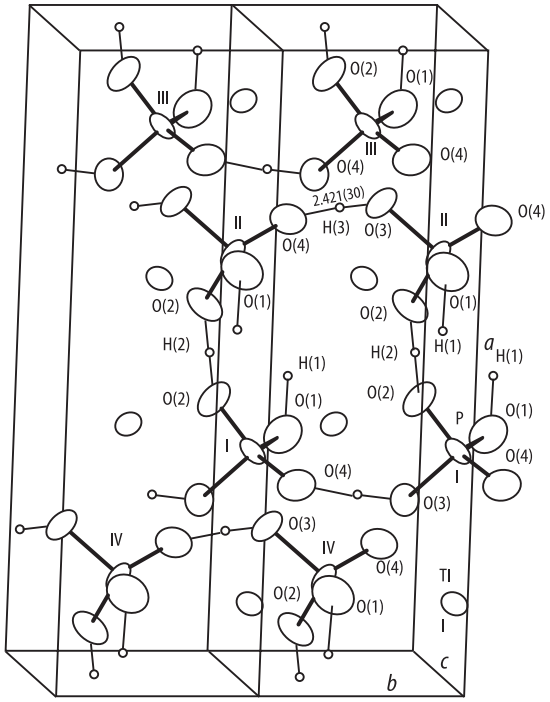
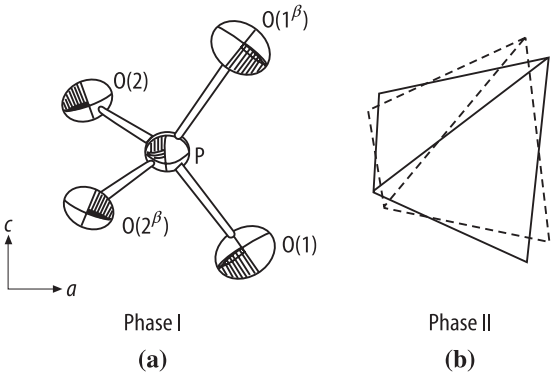


Fig. 33A-4-001. TlH_2PO_4 (TDP). Structure at RT [79Odd]. Anisotropic temperature parameter of each atom is illustrated by ellipsoid.



(a) **(b)**

Fig. 33A-4-002. TlH_2PO_4 (TDP). Structure of PO_4 tetrahedron [94Mat]. (**a**) T = 373 K. Anisotropic temperature parameters are illustrated. (**b**) Two structurally equivalent orientations in phase II.

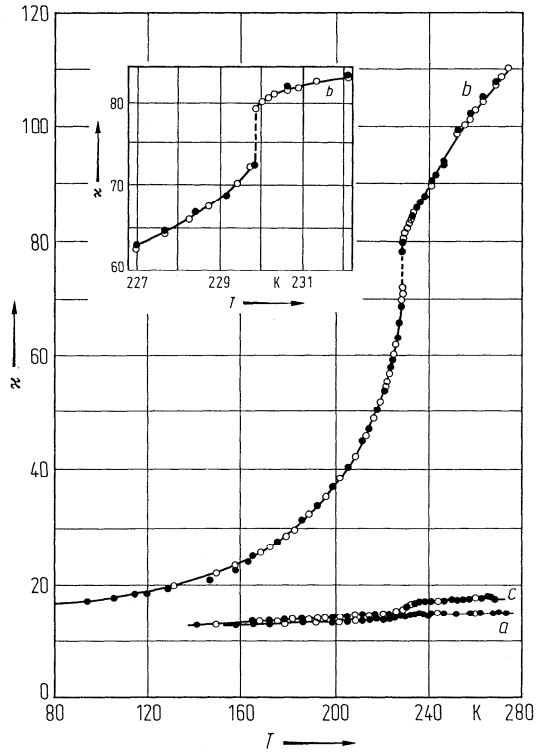


Fig. 33A-4-003. TlH_2PO_4 (TDP). κ along a, b, c axes vs. T [77Mat]. f = 1 kHz. Insert: κ_b in the vicinity of Θ_{III-II}.

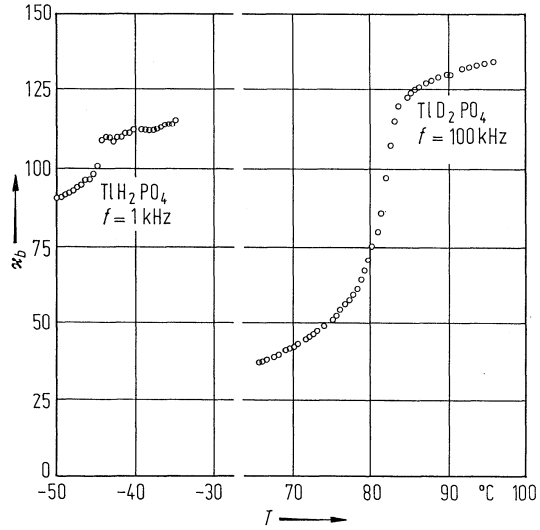


Fig. 33A-4-004. TlH_2PO_4 (TDP), TlD_2PO_4 (DTDP). κ_b vs. T [80Yas2].

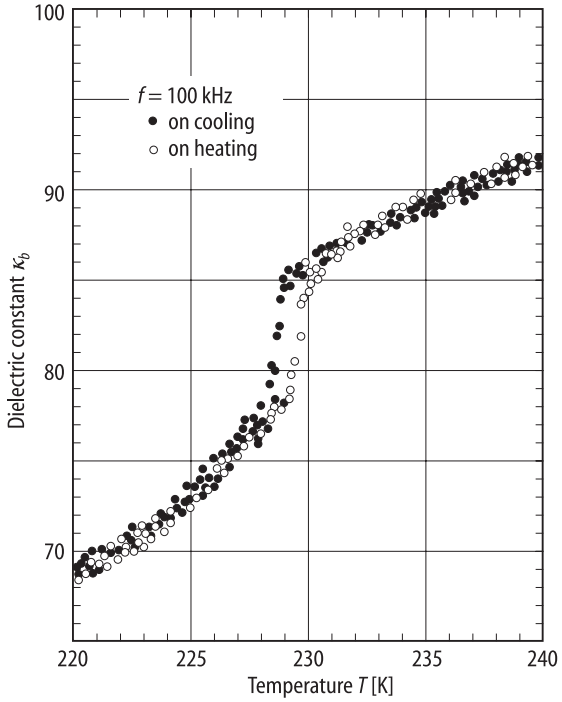


Fig. 33A-4-005. TlH_2PO_4 (TDP). κ_b vs. T in the vicinity of Θ_{II-II} [94Par].

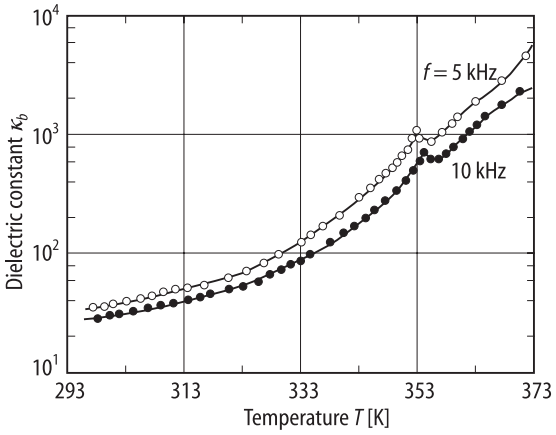


Fig. 33A-4-006. TlD_2PO_4 (DTDP). κ_b vs. T [87Nar]. Parameter: f. Deuteration rate > 0.97.

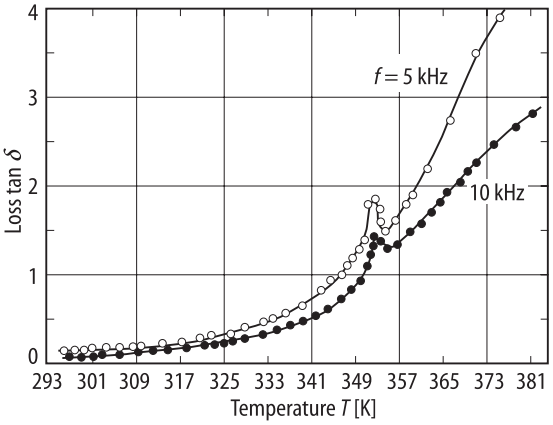


Fig. 33A-4-007. TlD_2PO_4 (DTDP). tan δ vs. T [87Nar]. Parameter: f. Deuteration rate > 0.97.

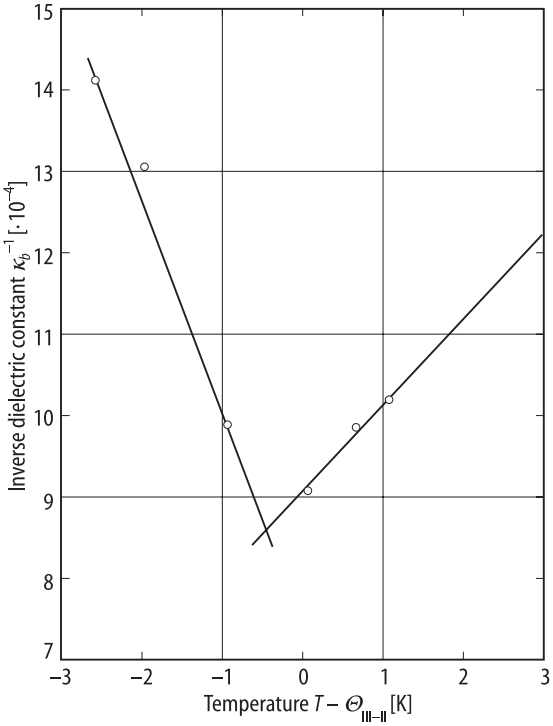


Fig. 33A-4-008. TlD_2PO_4 (DTDP). $1/\kappa_b$ vs. $T - \Theta_{III-II}$ [87Nar]. Deuteration rate > 0.97.

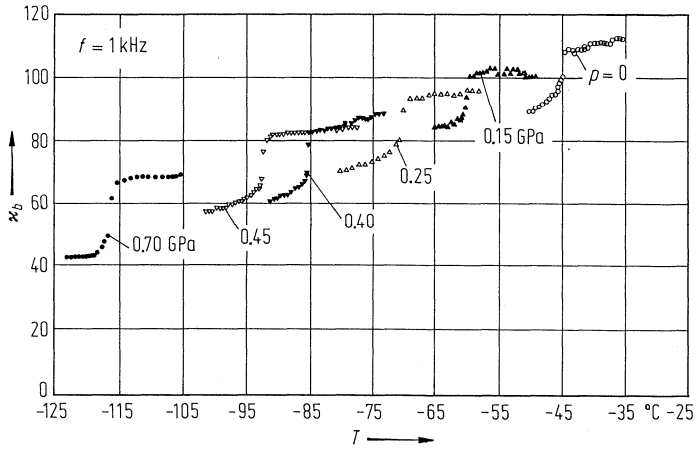


Fig. 33A-4-009. TlH_2PO_4 (TDP). $\varkappa_b$ vs. T [80Yas1]. Parameter: p.

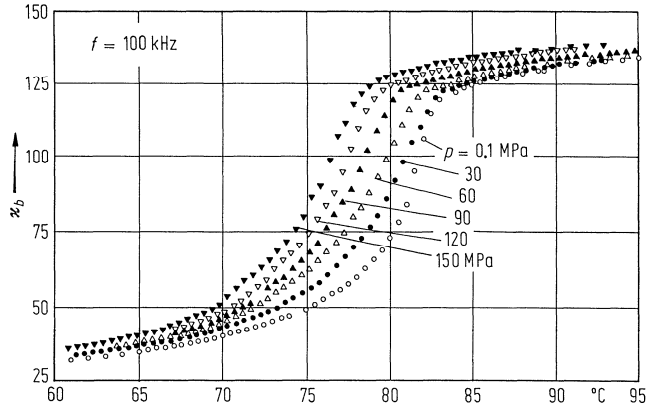


Fig. 33A-4-010. TlD_2PO_4 (DTDP). $\varkappa_b$ vs. T [80Yas1]. Parameter: p.

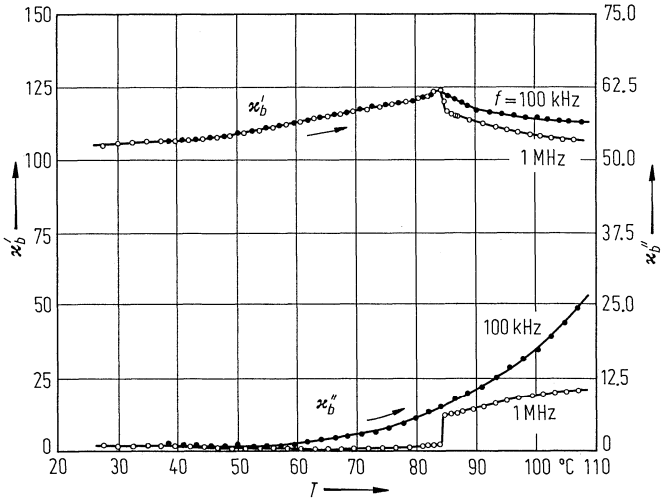


Fig. 33A-4-011. TlH_2PO_4 (TDP). $\varkappa_b'$, $\varkappa_b''$ vs. T [84Yos]. Parameter: f.

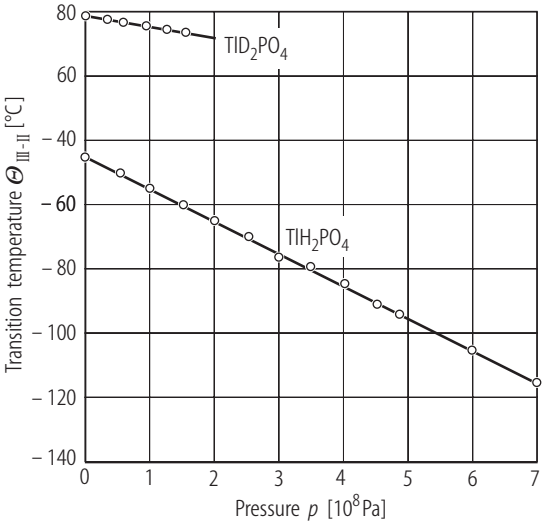


Fig. 33A-4-012. TlH_2PO_4 (TDP), TlD_2PO_4 (DTDP). $\Theta_{III–II}$ vs. p [79Yas].

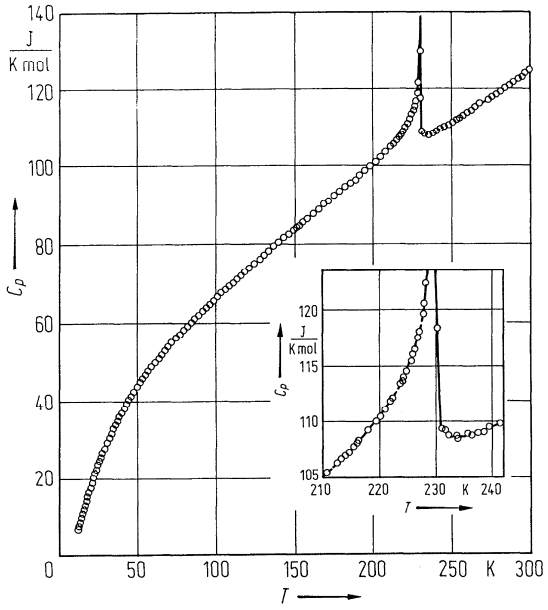


Fig. 33A-4-013. TlH_2PO_4 (TDP). C_p vs. T [77Mat]. C_p: molar heat capacity. The insert shows the behavior in the vicinity of $\Theta_{III–II}$.

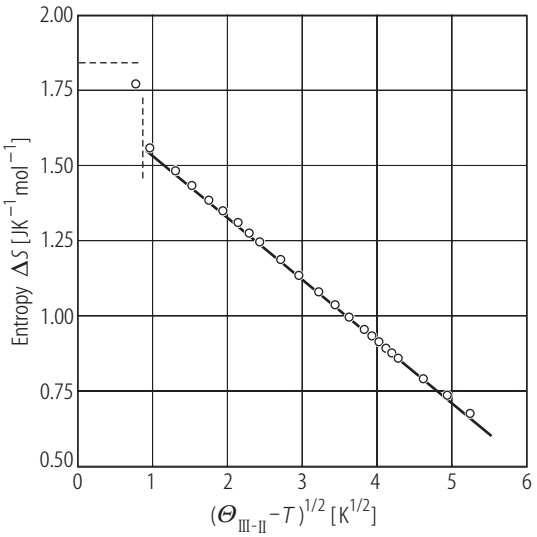


Fig. 33A-4-014. TlH_2PO_4 (TDP). ΔS vs. $(\Theta_{III-II} - T)^{1/2}$ [77Mat]. ΔS: anomalous entropy. The horizontal broken line indicates the entropy of phase II. The vertical broken line corresponds to the temperature of the first order transition.

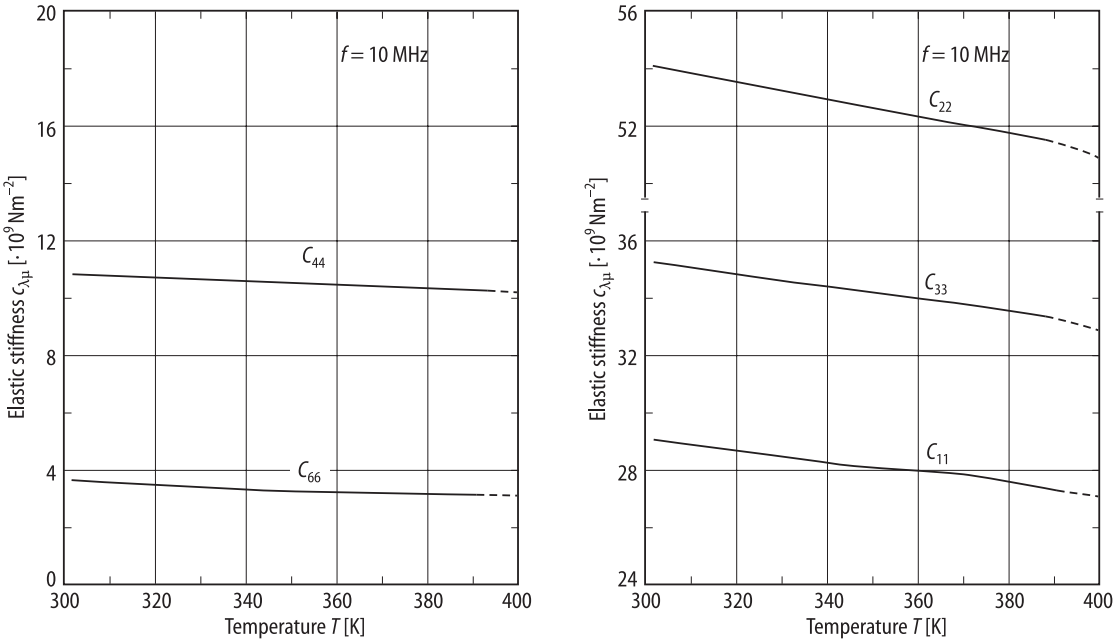


Fig. 33A-4-015. TlH_2PO_4 (TDP). $c_{\lambda\mu}$ vs. T [91Han].

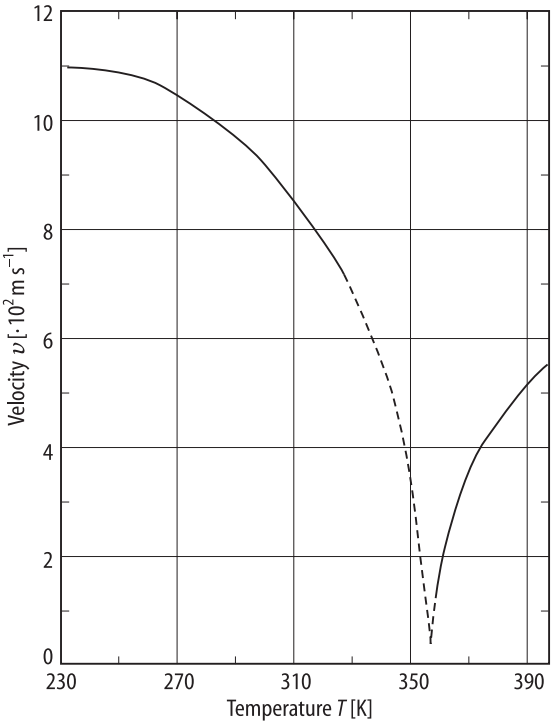


Fig. 33A-4-016. TlH_2PO_4 (TDP). v vs. T [91Han]. v: transverse acoustic wave velocity with wave vector $\boldsymbol{q}$ || [100] and polarization vector $\boldsymbol{\xi}$ || [001]. f = 10 MHz. Dashed curves are smooth extension of v–T relation to $\Theta_{\mathrm{II–I}}$.

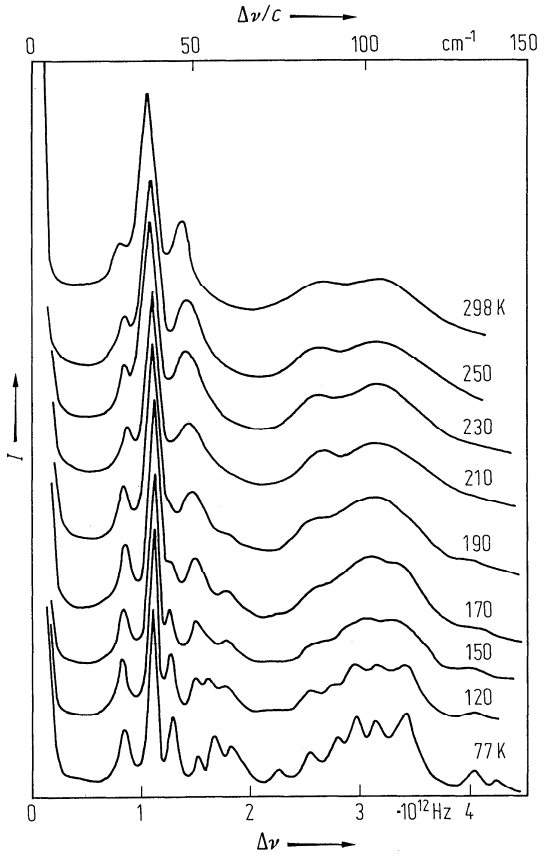


Fig. 33A-4-017. TlH_2PO_4 (TDP). I vs. $\Delta\nu$ [76Huo]. Parameter: T. I: Raman scattering intensity of a non-oriented single crystal.

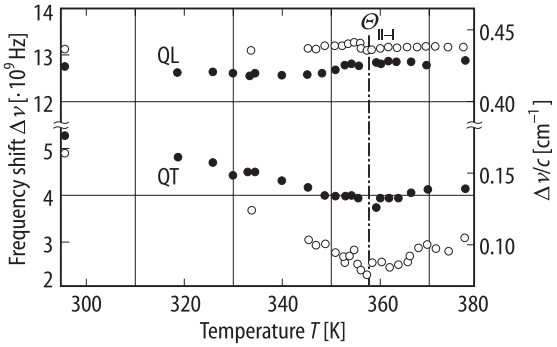


Fig. 33A-4-018. TlH_2PO_4 (TDP). $\Delta\nu$ vs. T [90Ara]. $\Delta\nu$: Brillouin scattering frequency shift of quasi-longitudinal (QL) and quasi-transverse (QT) modes along the direction of $\theta = 8°$ (full circle) and $\theta = 18°$ (open circle) in the *ac* plane.

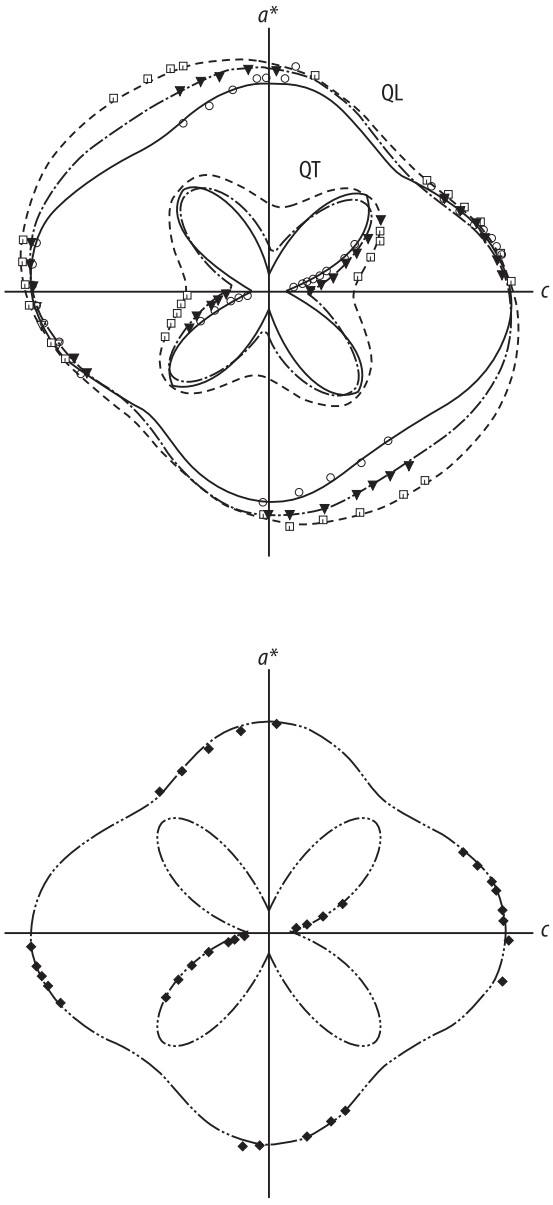


Fig. 33A-4-019. TlH_2PO_4 (TDP). Angular dependence of $(\Delta\nu)^2$ in the a^*c plane [90Ara]. Parameter: T. $\Delta\nu$: Brillouin scattering frequency shift. Open square: 295.6 K, full triangle: 333.6 K, open circle: 335.7 K, full diamond: 359.1 K. QL: quasi-longitudinal mode, QT: quasi-transverse mode.

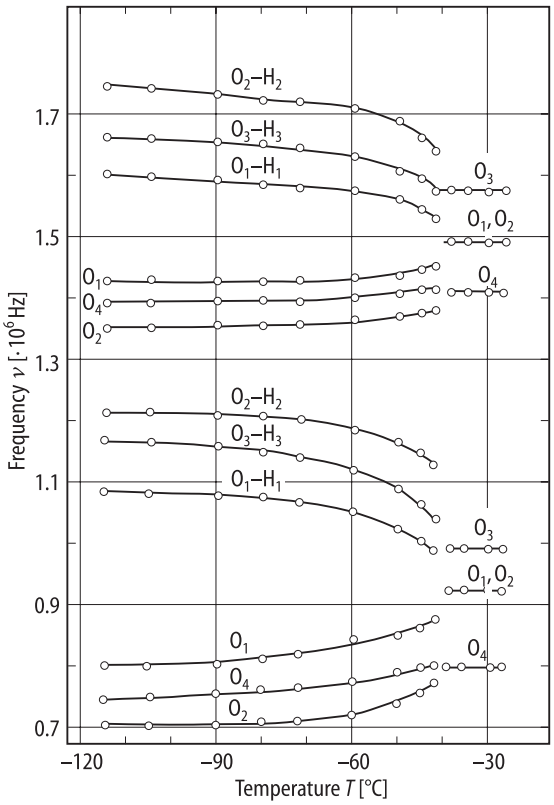


Fig. 33A-4-020. TlH_2PO_4 (TDP). ν vs. T [88Sel]. ν: ^{17}O NQR frequency. ν of O atoms with short O–H distance in the hydrogen bond are denoted as $O_i - H_i$ (i = 1, 2, 3).

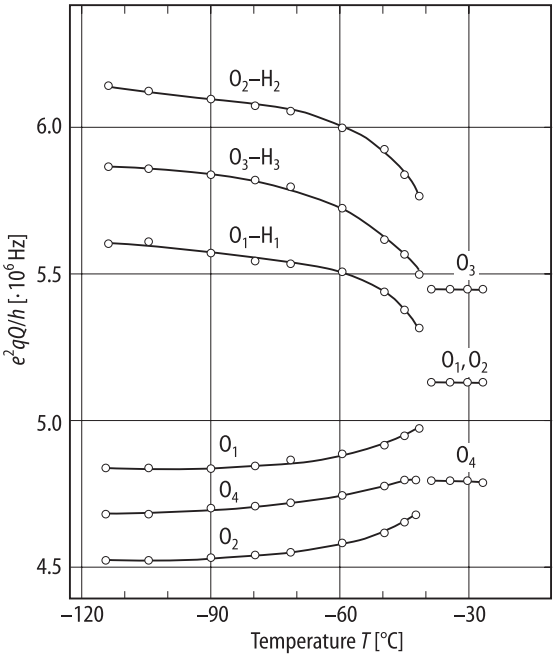


Fig. 33A-4-021. TlH_2PO_4 (TDP). e^2qQ/h vs. T of ^{17}O [88Sel]. e^2qQ/h of O atoms with short O–H distances in the hydrogen bond are denoted as $O_i - H_i$ (i = 1, 2, 3).

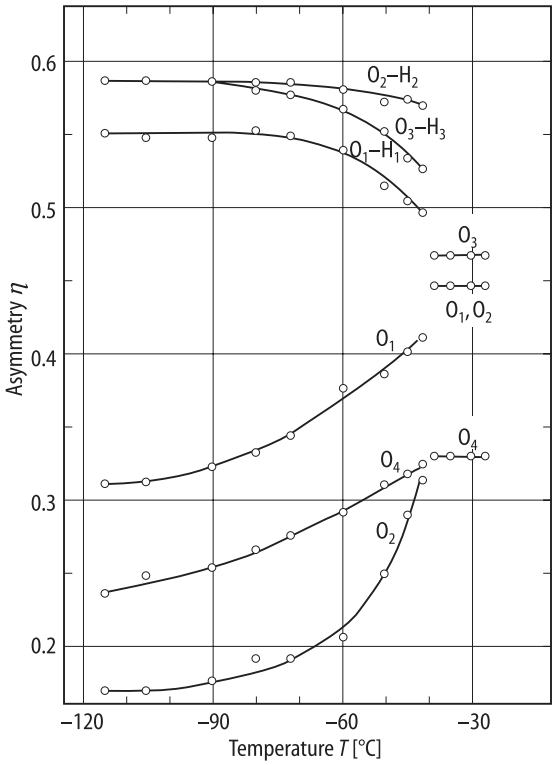


Fig. 33A-4-022. TlH_2PO_4 (TDP). η vs. T [88Sel]. η: asymmetry parameter of ^{17}O. η of O atoms with short O–H distances in the hydrogen bond are denoted as $O_i - H_i$ (i = 1, 2, 3).

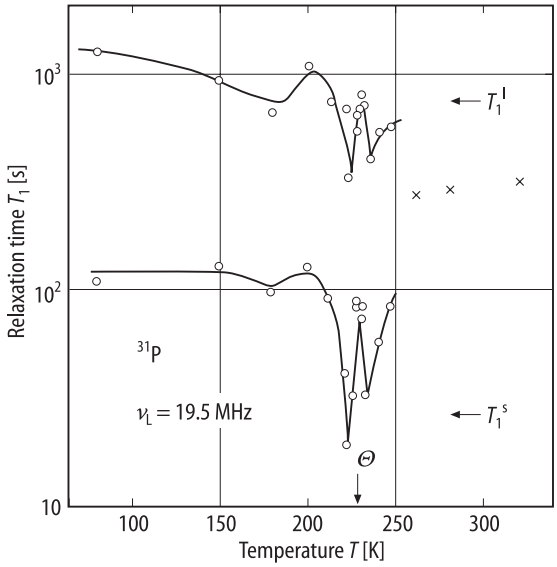


Fig. 33A-4-023. TlH_2PO_4 (TDP). T_1 vs. T [88Nak]. T_1: ^{31}P spin lattice relaxation time. Superscripts l and s denote the long and short components, respectively.

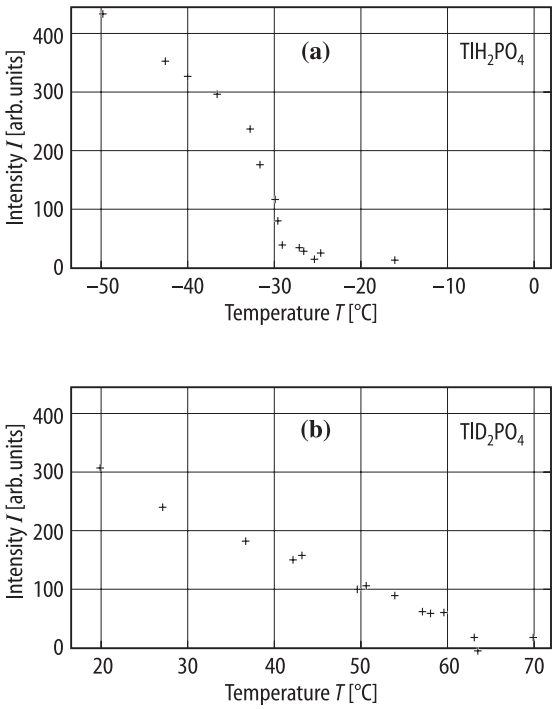


Fig. 33A-4-024. TlH_2PO_4 (TDP), TlD_2PO_4 (DTDP). I vs. T [81Nel1]. I: X-ray integrated intensity of superlattice reflection at (8.5, 1.5, 1). (**a**) TlH_2PO_4, (**b**) TlD_2PO_4 (deuteration rate > 0.9). New superlattice reflections appear below 230 K in (**a**) and below 350 K in (**b**).