

Fig. 40A-9-001. NH_4HSeO_4 - ND_4DSeO_4 . Θ vs. x [84Cza]. x : molar fraction of D.

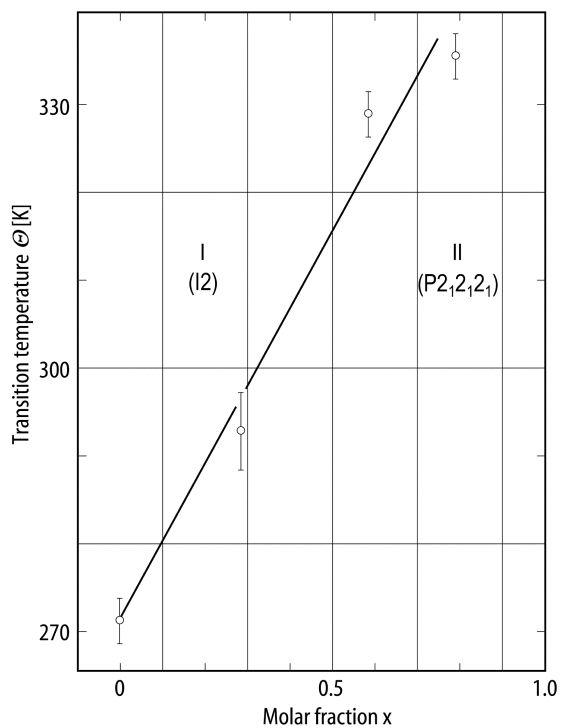


Fig. 40A-9-002. NH_4HSeO_4 - ND_4DSeO_4 . $\Theta_{\text{I-1}}$ vs. x [88Suk]. x : molar fraction of D.

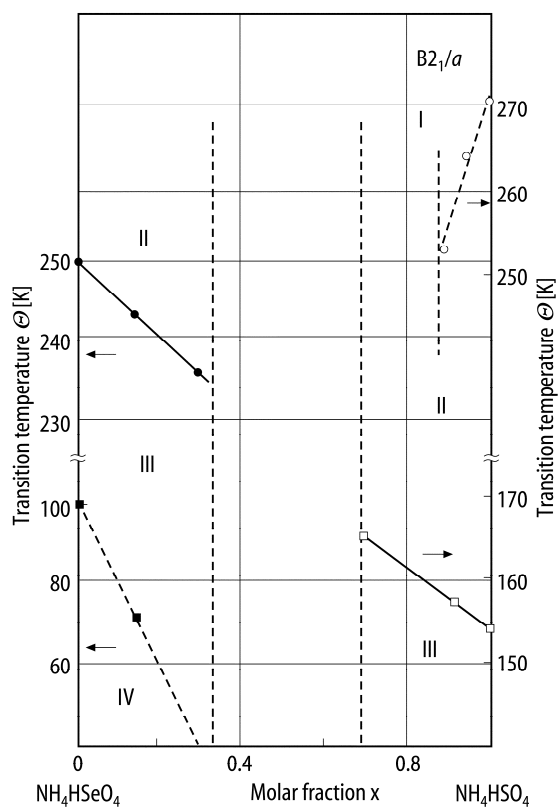


Fig. 40A-9-003. NH_4HSeO_4 - NH_4HSO_4 . Θ vs. x [88Mro]. x : molar fraction of SO_4 .

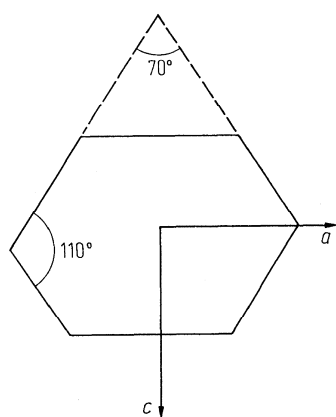


Fig. 40A-9-004. NH_4HSeO_4 . Crystal form [79Cza].

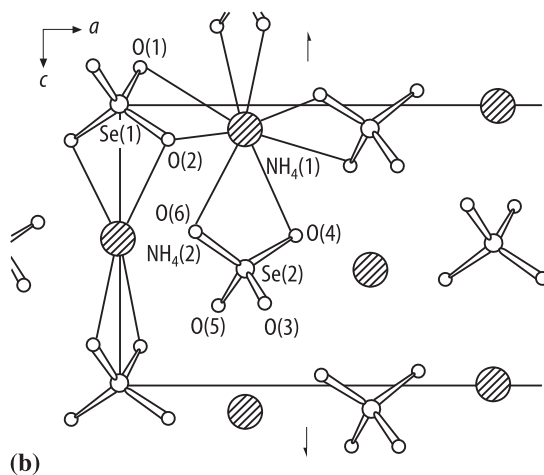
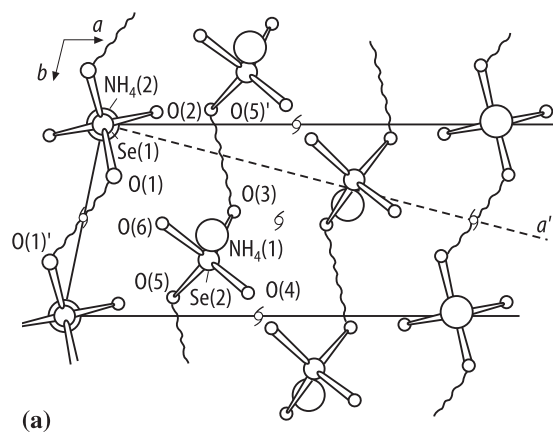


Fig. 40A-9-005. NH_4HSeO_4 . Structure of phase I [80Kru]. $T = 293$ K. (a) Projection on the ab plane along the c axis. A half of the unit cell is shown. Wavy lines denote hydrogen bonds. The dashed line denotes the $[110]$ direction. (b) Projection on the ac plane. The solid lines denote the bonds of the NH_4 cations with their surrounding oxygen atoms.

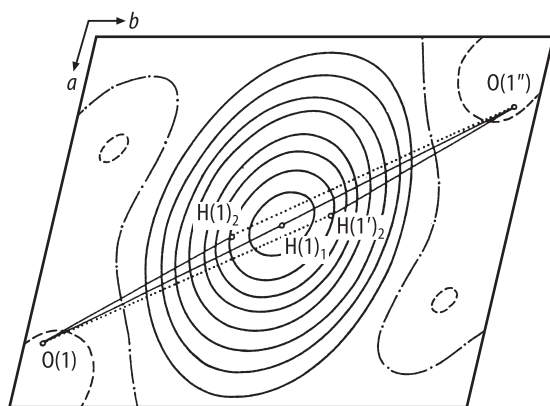


Fig. 40A-9-006. NH_4HSeO_4 . Nuclear density [90Mak2]. Distribution of nuclear density of hydrogens of N(1)H_4 on a - b plane. $T = 400$ K.

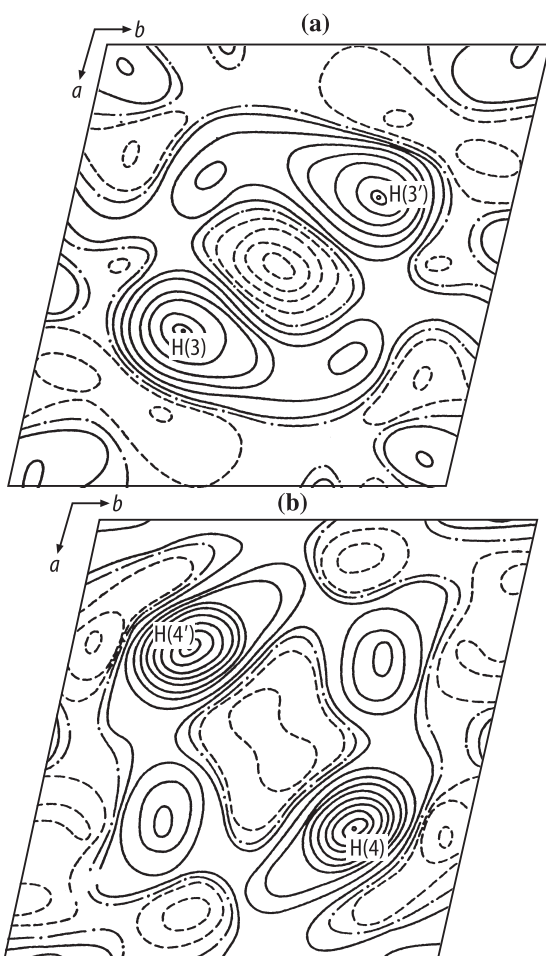


Fig. 40A-9-007. NH_4HSeO_4 . Nuclear density [90Mak2]. Distribution of nuclear density of hydrogens of N(1)H₄ on *a*-*b* plane. $T = 293$ K.

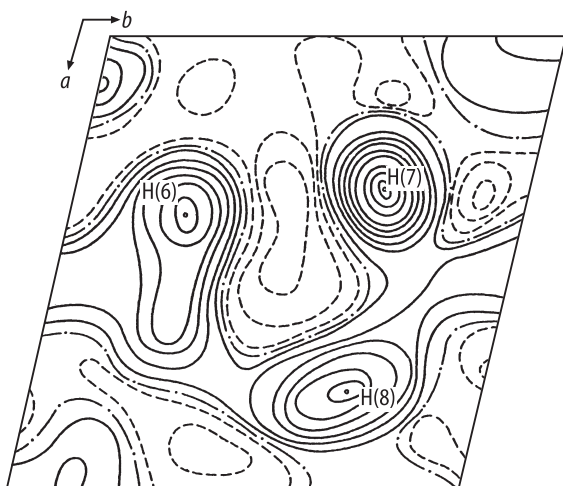


Fig. 40A-9-008. NH_4HSeO_4 . Nuclear density [90Mak2]. Distribution of nuclear density of hydrogens of N(2)H₄ on *a*-*b* plane. $T = 293$ K.

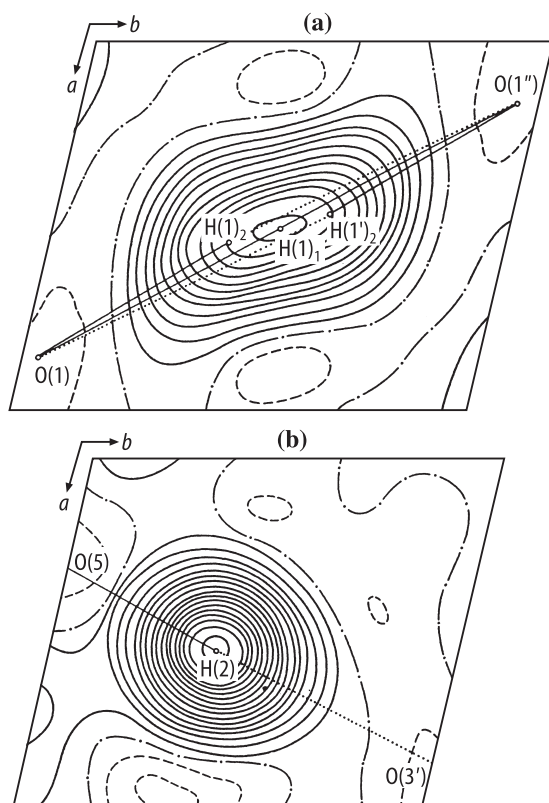


Fig. 40A-9-009. NH_4HSeO_4 . Nuclear density [90Mak2]. Distribution of nuclear density of (a) H(1) and (b) H(2) on a - b plane. $T = 293$ K.

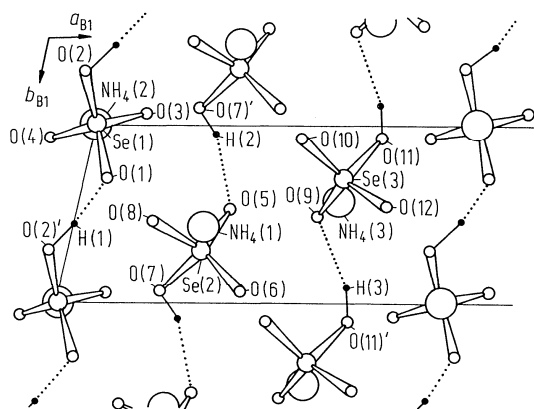


Fig. 40A-9-010. NH_4HSeO_4 . Structure of phase III [80Kru]. $T = 223$ K. Projection along c axis. A half of the B1 cell is shown.

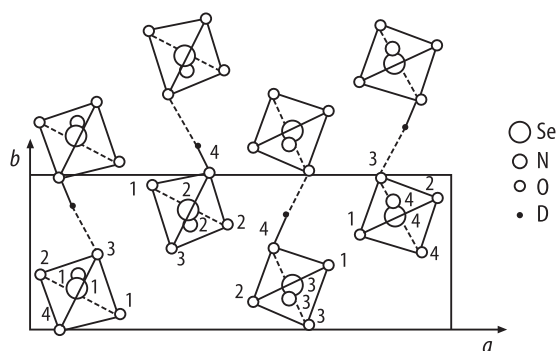


Fig. 40A-9-011. ND_4DSeO_4 . Crystal structure at RT [82Was]. Projection along the c axis.

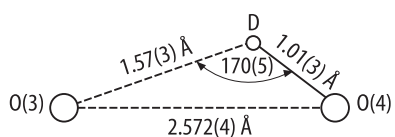


Fig. 40A-9-012. ND_4DSeO_4 . Crystal structure at RT [82Was]. Interatomic distances [\AA] and angles [$^\circ$] of hydrogen bonds.

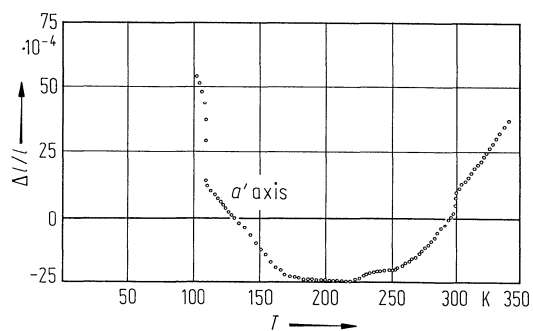


Fig. 40A-9-013. NH_4HSeO_4 . $\Delta l/l$ vs. T [83Pop]. $\Delta l/l$: linear thermal expansion along the a' axis.

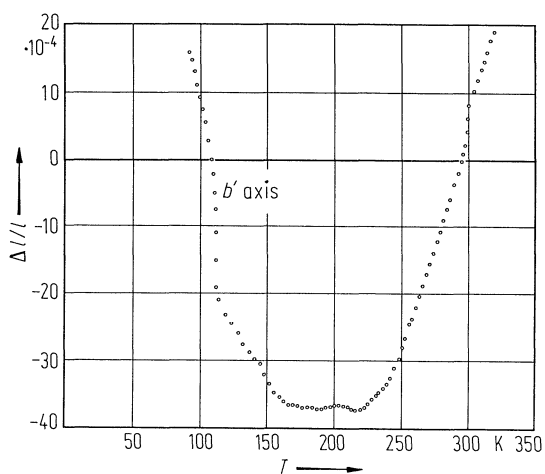


Fig. 40A-9-014. NH_4HSeO_4 . $\Delta l/l$ vs. T [83Pop]. $\Delta l/l$: linear thermal expansion along the b' axis.

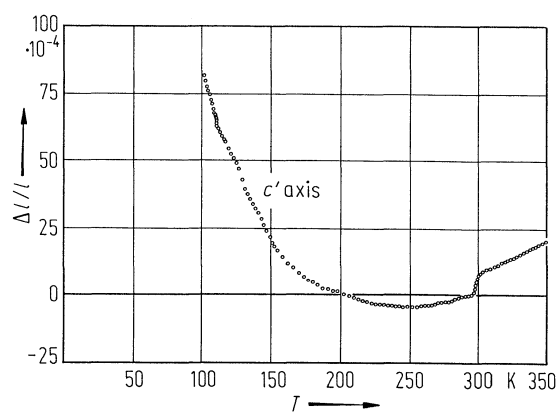


Fig. 40A-9-015. NH_4HSeO_4 . $\Delta l/l$ vs. T [83Pop]. $\Delta l/l$: linear thermal expansion along the c' axis.

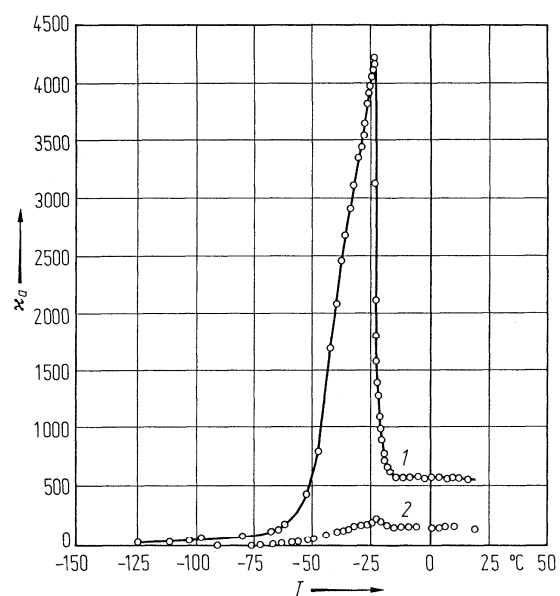


Fig. 40A-9-016. NH_4HSeO_4 . κ_a vs. T [79Kra]. Curve 1: $f = 800$ Hz; curve 2: $f = 10$ MHz.

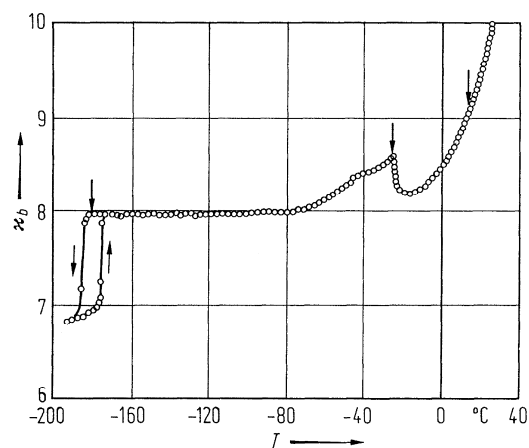


Fig. 40A-9-017. NH_4HSeO_4 . κ_b vs. T [80Ges]. $f = 1$ kHz. Vertical arrows point to transition temperatures.

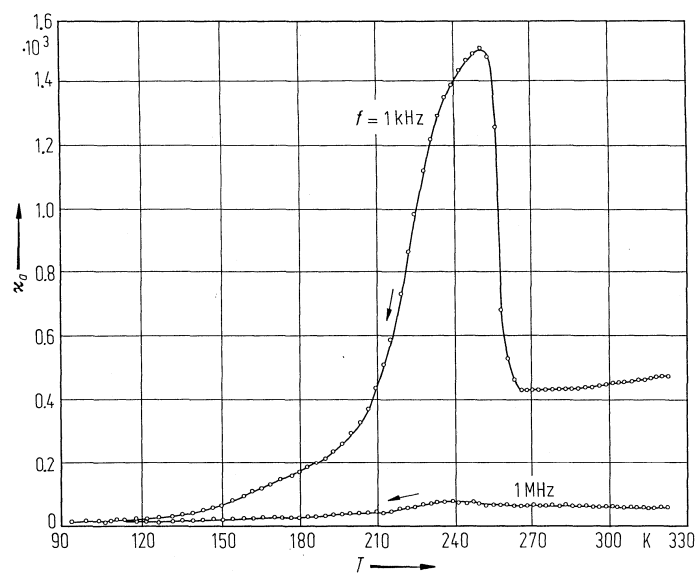


Fig. 40A-9-018. NH_4HSeO_4 . κ_a vs. T [84Pop1]. Parameter: f .

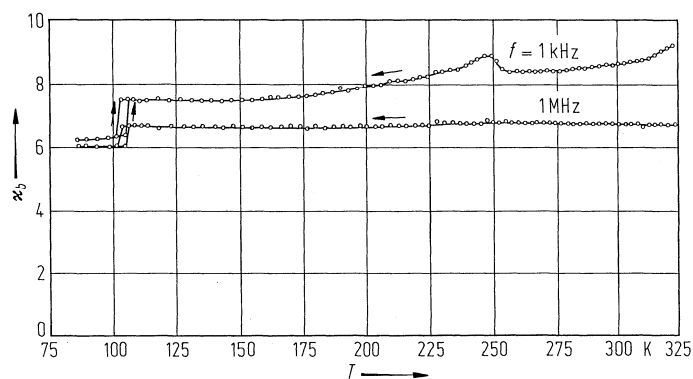


Fig. 40A-9-019. NH_4HSeO_4 . κ_b vs. T [84Pop1]. Parameter: f .

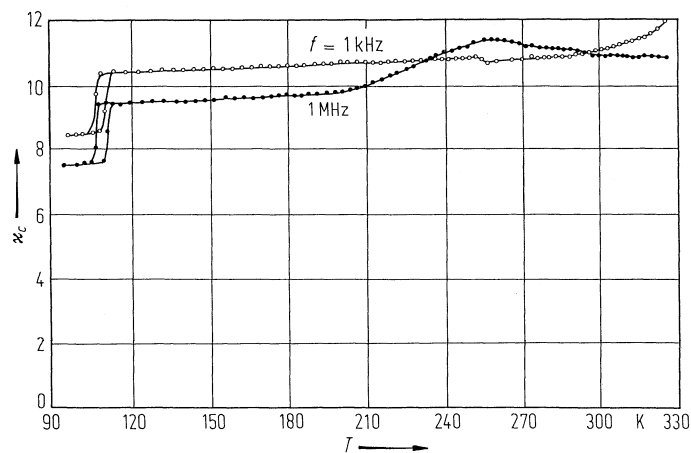


Fig. 40A-9-020. NH_4HSeO_4 . κ_c vs. T [84Pop1]. Parameter: f .

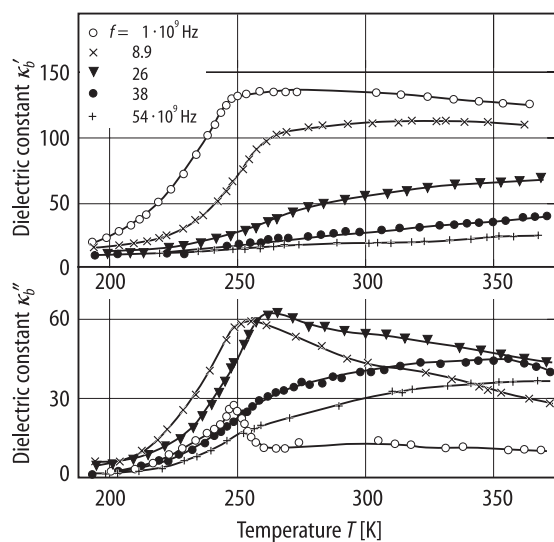


Fig. 40A-9-021. NH_4HSeO_4 . κ'_b , κ''_b vs. T [95Sob]. Parameter: f .

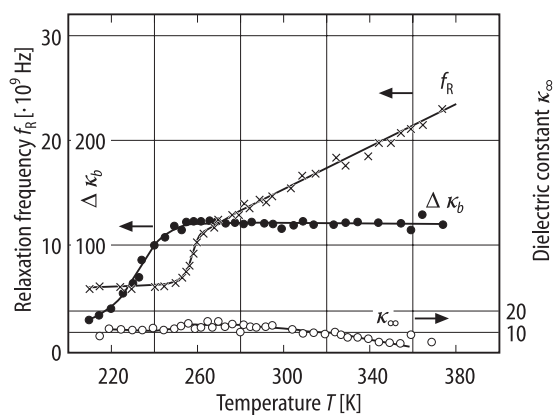


Fig. 40A-9-022. NH_4HSeO_4 . $\Delta\kappa_b$, κ_∞ , f_R vs. T [95Sob]. $\Delta\kappa_b = \kappa_0 - \kappa_\infty$. κ_0 : static dielectric constant, f_R : relaxation frequency.

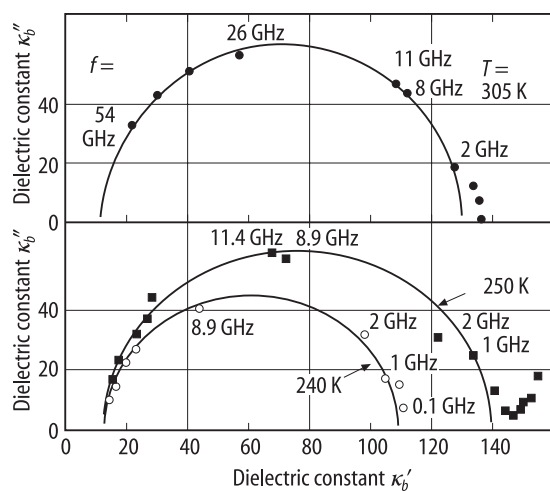


Fig. 40A-9-023. NH_4HSeO_4 . Cole-Cole diagram of complex dielectric constant [95Sob]. Parameter: T .

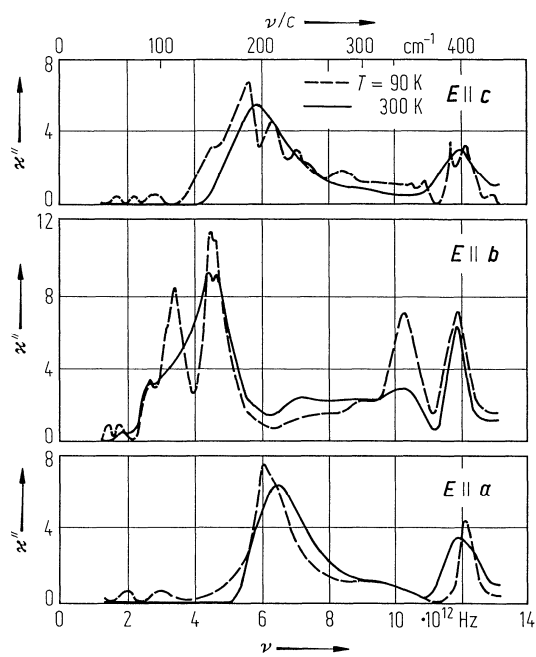


Fig. 40A-9-024. NH_4HSeO_4 . κ'' vs. ν [81Kro]. The curves are obtained from reflectivity data using Kramers-Kronig relation.

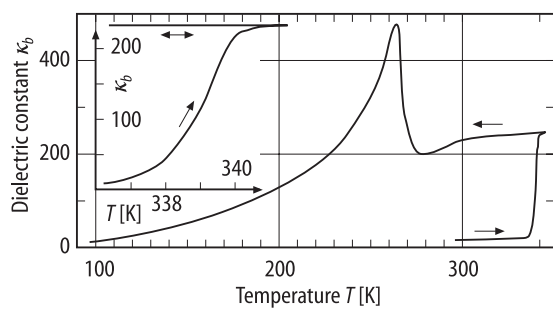


Fig. 40A-9-025. $(\text{NH}_4\text{H})_{0.4}(\text{ND}_4\text{D})_{0.6}\text{SeO}_4$. κ_b vs. T [87Cza].

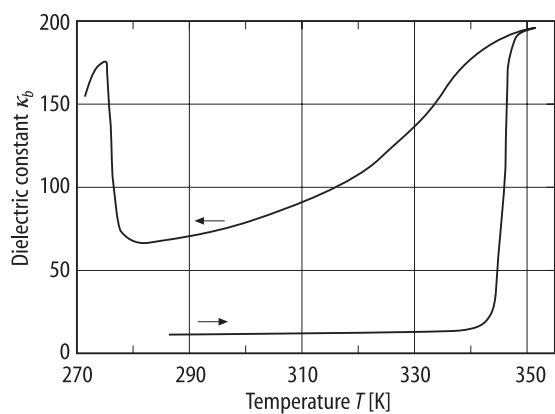


Fig. 40A-9-026. $(\text{NH}_4\text{H})_{0.1}(\text{ND}_4\text{D})_{0.9}\text{SeO}_4$. κ_b vs. T [87Cza].

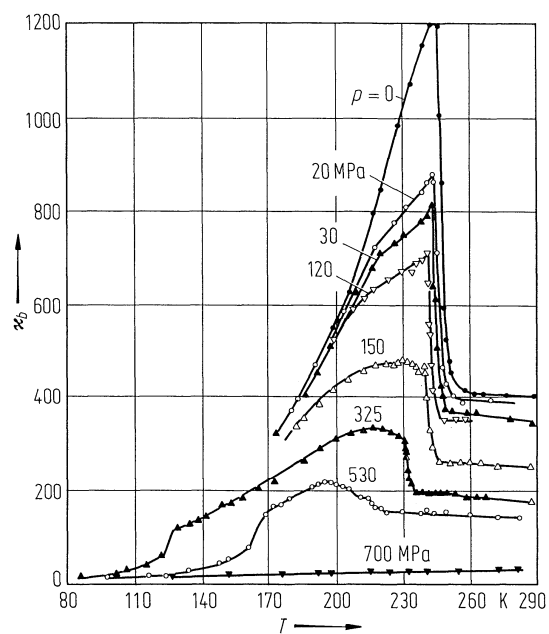


Fig. 40A-9-027. NH_4HSeO_4 . κ_b vs. T [81Kra]. Parameter: p .

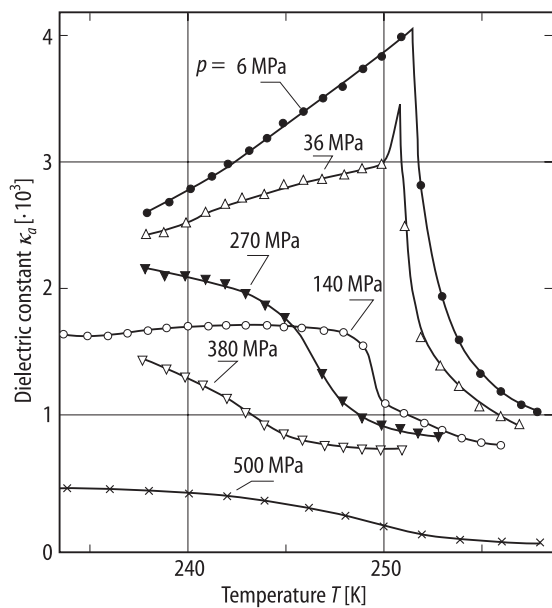


Fig. 40A-9-028. NH_4HSeO_4 . κ_a vs. T [91Pop]. Parameter: p .

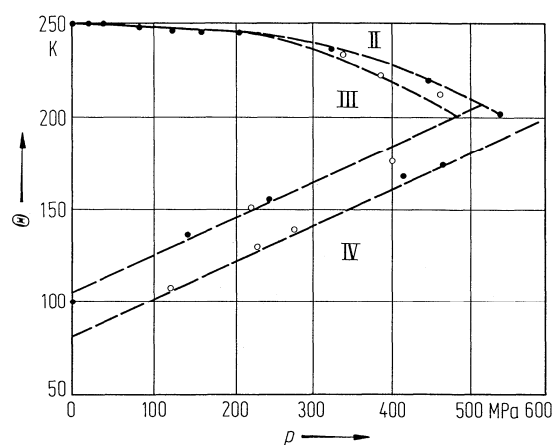


Fig. 40A-9-029. NH_4HSeO_4 . Θ vs. p [81Kra]. Full circle: from measurement of κ_b ; open circle: from measurement of P_s .

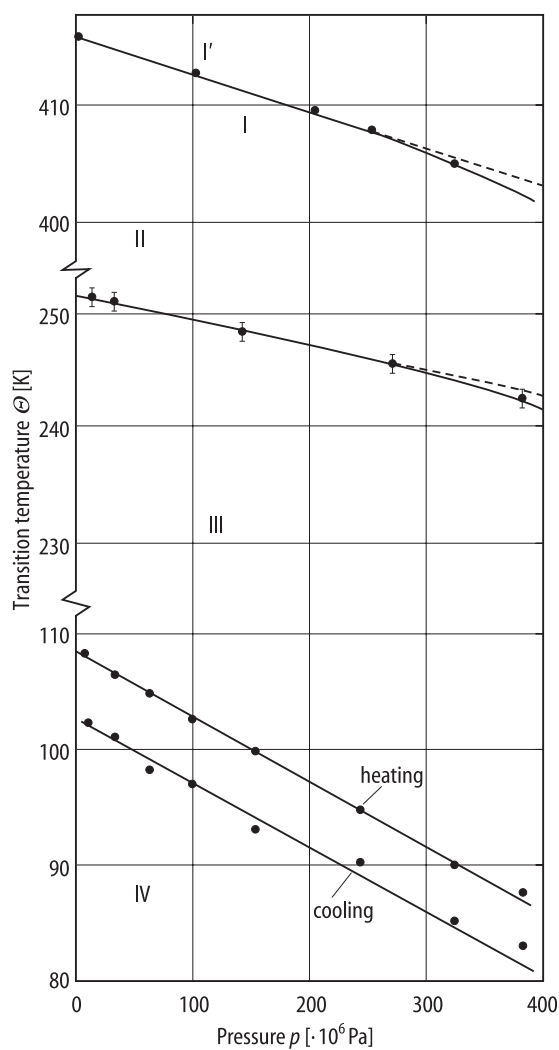


Fig. 40A-9-030. NH_4HSeO_4 . Θ vs. p [91Pop].

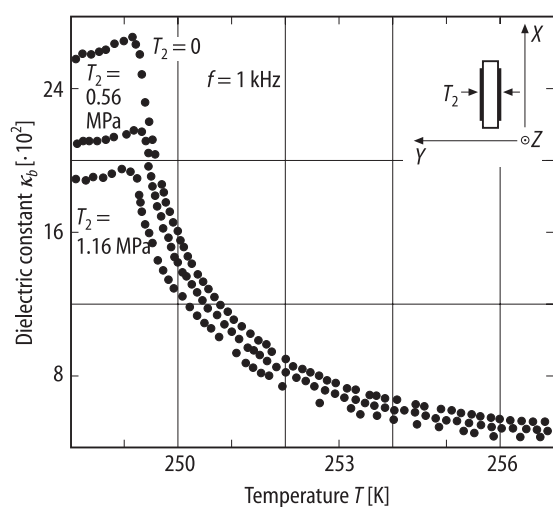


Fig. 40A-9-031. NH_4HSeO_4 . κ_b vs. T [92Sty]. Parameter: T_2 . T_2 : compressive uniaxial stress along Y . The relation between electrodes and stress direction is shown in the insert.

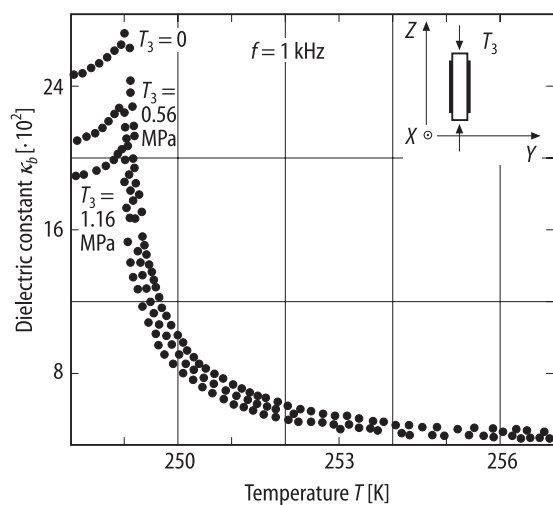


Fig. 40A-9-032. NH_4HSO_4 . κ_b vs. T [92Sty]. Parameter: T_3 . T_3 : compressive uniaxial stress along Z . The relation between electrodes and stress direction is shown in the insert.

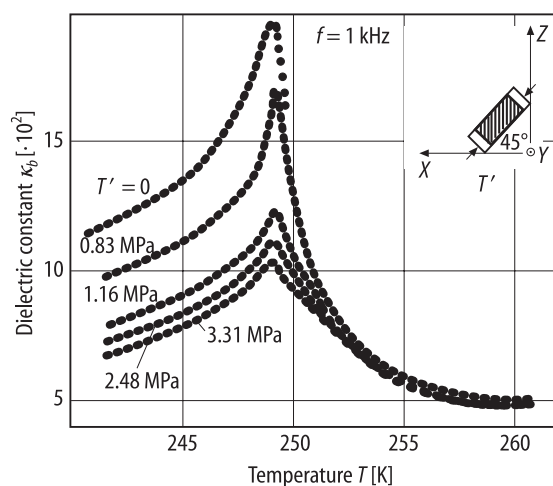


Fig. 40A-9-033. NH_4HSO_4 . κ_b vs. T [92Sty]. Parameter: T' . T' : compressive uniaxial stress along the direction at 45° from $-X$ in the X - Z plane. The relation between electrodes and stress direction is shown in the insert.

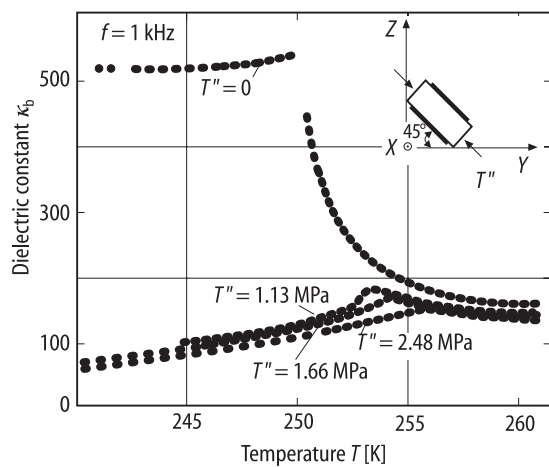


Fig. 40A-9-034. NH_4HSeO_4 . κ_b vs. T [92Sty]. Parameter: T'' . T'' : compressive uniaxial stress along the direction at 45° from $-Y$ in the Y - Z plane. The relation between electrodes and stress direction is shown in the insert.

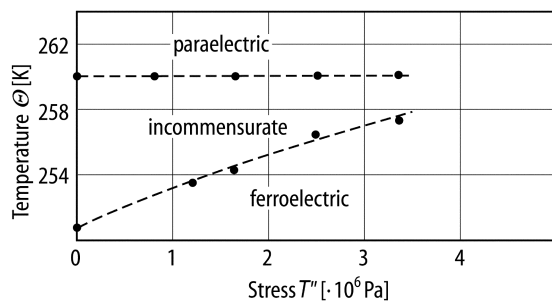


Fig. 40A-9-035. NH_4HSeO_4 . Θ vs. T'' [92Sty]. T'' : uniaxial compressive stress in Y - Z plane along the direction making 45° from $-Y$.

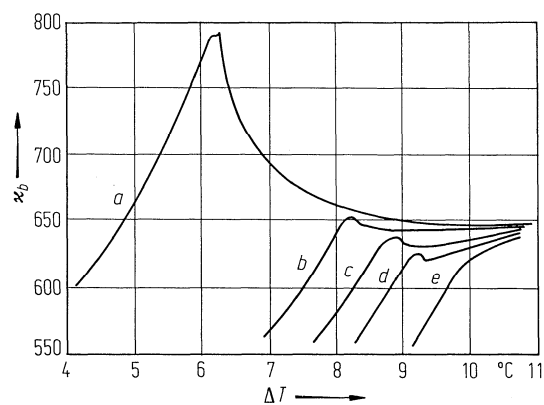


Fig. 40A-9-036. NH_4HSeO_4 . κ_b vs. ΔT [87Pyk]. Parameter: E_{bias} [$\cdot 10^5 \text{ V m}^{-1}$]. Curve a : $E_{\text{bias}} = 4.63$ [$\cdot 10^5 \text{ V m}^{-1}$], b : 7.65, c : 8.72, d : 9.43, e : 11. $\Delta T = T - \Theta_f$. On cooling.

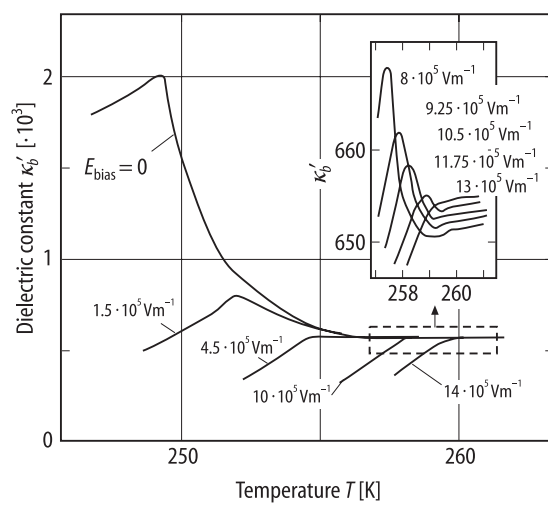


Fig. 40A-9-037. NH_4HSeO_4 . κ'_b vs. T [88Kro]. Parameter: E_{bias} .

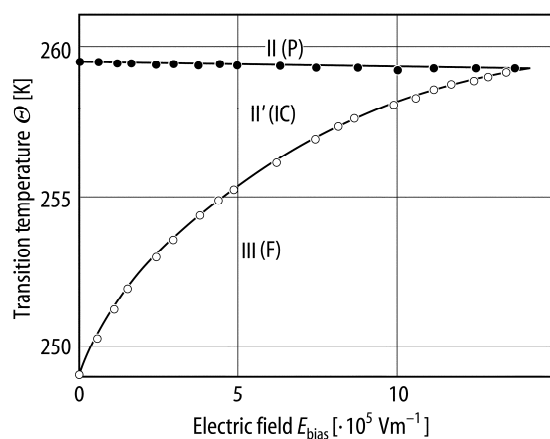


Fig. 40A-9-038. NH_4HSeO_4 . Θ vs. E_{bias} [88Kro].

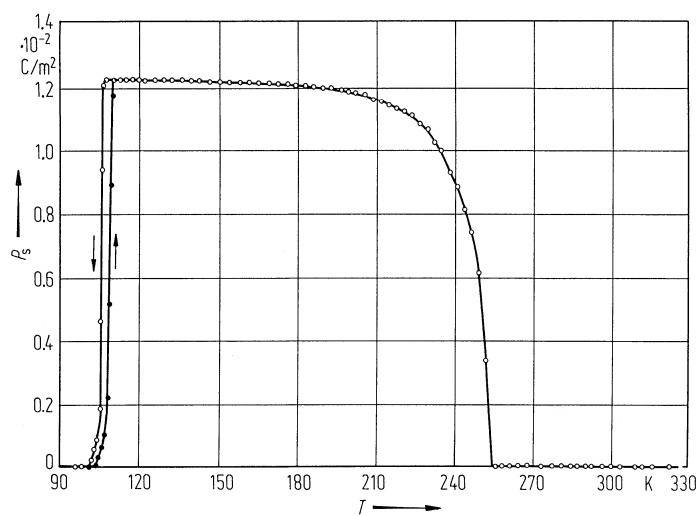


Fig. 40A-9-039. NH_4HSeO_4 . P_s vs. T along the b axis [84Pop1].

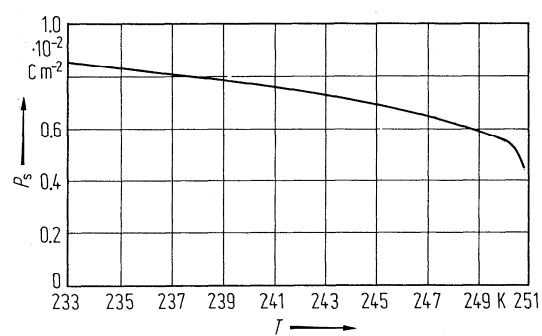


Fig. 40A-9-040. NH_4HSeO_4 . P_s vs. T [80Pop].

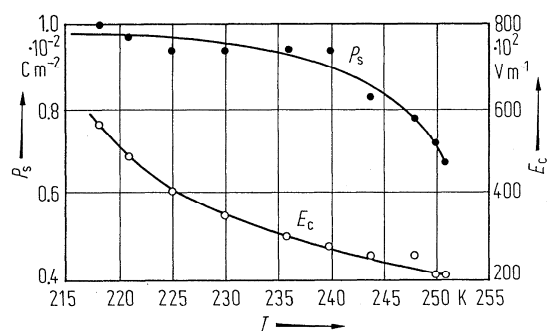


Fig. 40A-9-041. NH_4HSeO_4 . P_s , E_c vs. T [79Cza].

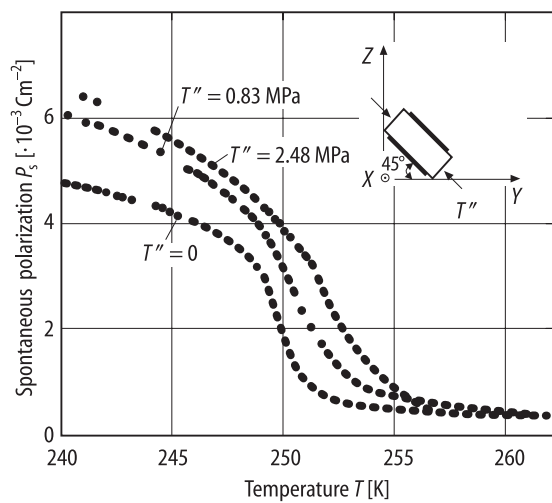


Fig. 40A-9-042. NH_4HSeO_4 . P_s vs. T [92Sty]. Parameter: T'' . T'' : compressive uniaxial stress along the direction at 45° from $-Y$ in the Y - Z plane. The relation between electrodes and stress direction is shown in the insert.

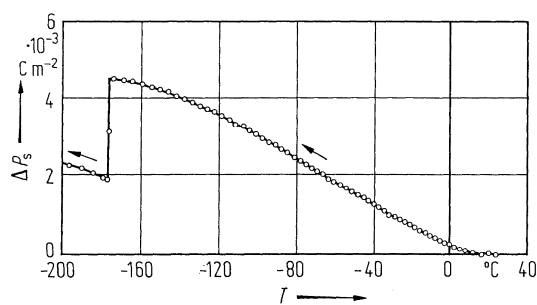


Fig. 40A-9-043. NH_4HSeO_4 . ΔP_s vs. T [80Ges]. ΔP_s : pyroelectric change.

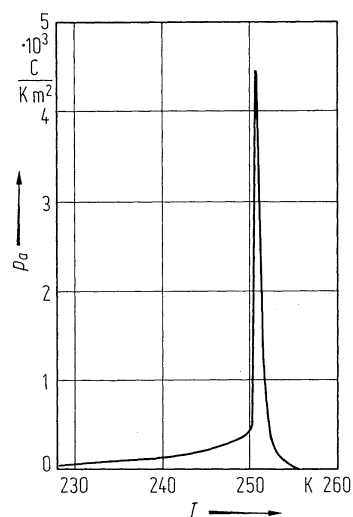


Fig. 40A-9-044. NH_4HSeO_4 . p_a vs. T [80Pop]. p_a : pyroelectric coefficient along the a axis.

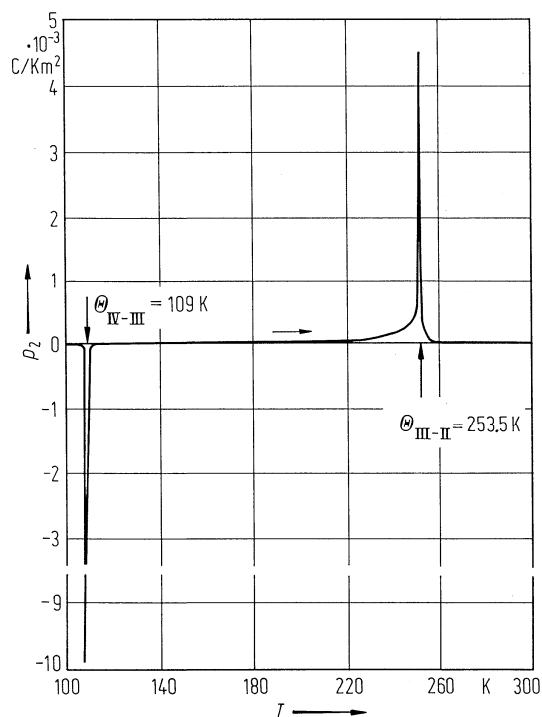


Fig. 40A-9-045. NH_4HSeO_4 . p_2 vs. T [81Pop]. p_2 : pyroelectric coefficient along the b axis.

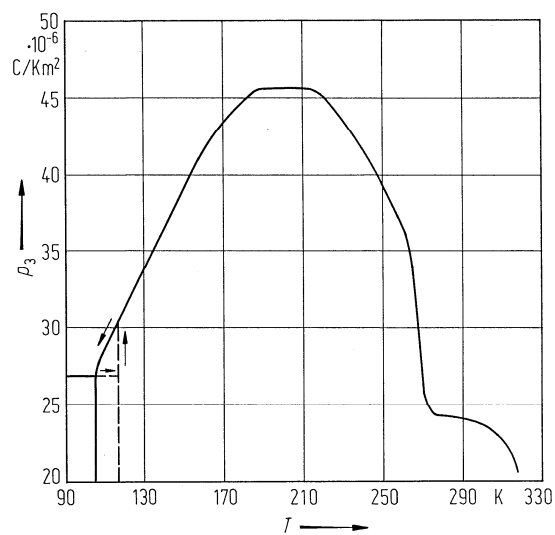


Fig. 40A-9-046. $(\text{NH}_4\text{H})_{1-x}(\text{ND}_4\text{D})_x\text{SeO}_4$. p_3 vs. T [86Pyk1]. $x = 0.7$. p_3 : pyroelectric coefficient along the c axis.

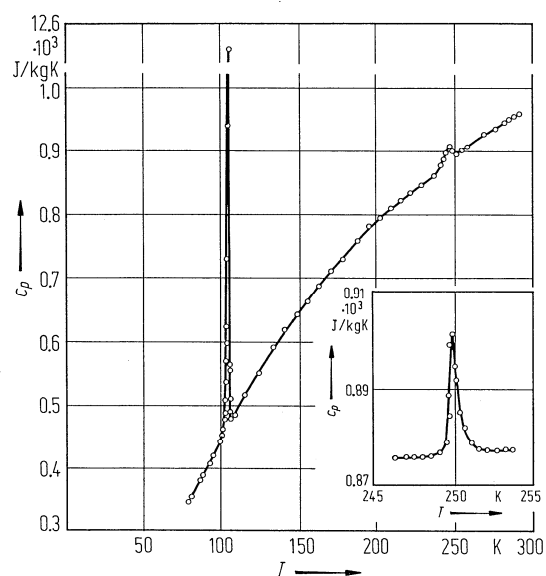


Fig. 40A-9-047. NH_4HSeO_4 . c_p vs. T [84Pop2]. c_p : specific heat capacity at constant pressure.

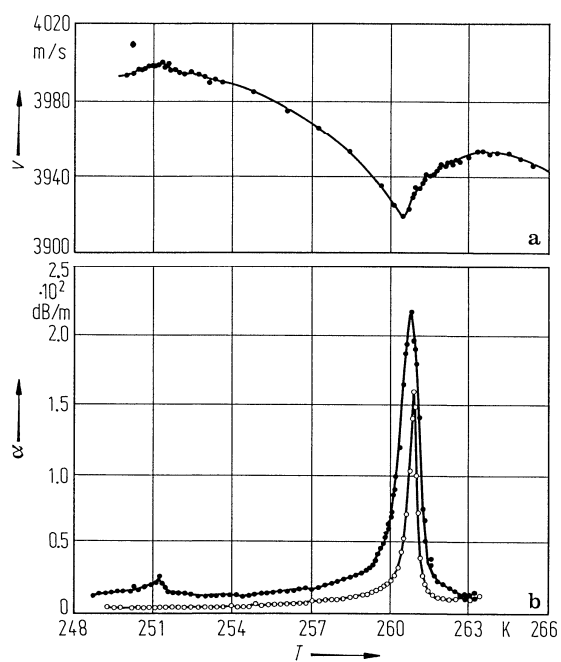


Fig. 40A-9-048. NH_4HSeO_4 . (a) v vs. T , (b) α vs. T [81Maj]. v : longitudinal sound velocity along the b axis measured at 10 MHz. α : longitudinal sound attenuation coefficient along the b axis. Full circle: $10 \cdot 10^6$ Hz; open circle: $5 \cdot 10^6$ Hz.

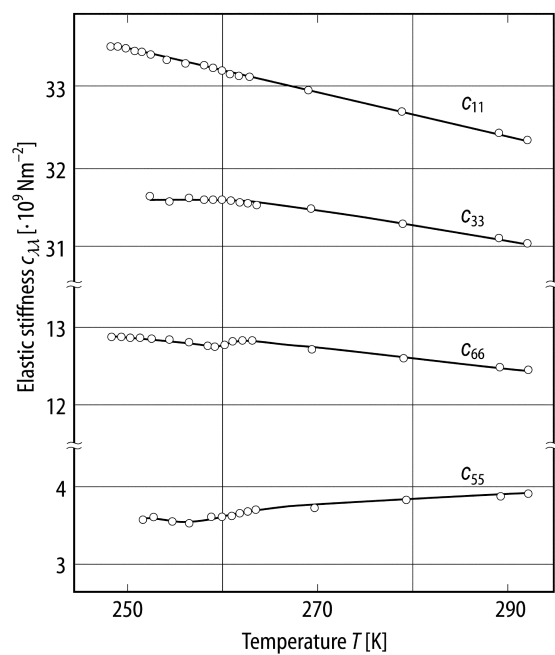


Fig. 40A-9-049. NH_4HSeO_4 . $c_{\lambda\lambda}$ vs. T [90Zra]. $c_{\lambda\lambda}$: elastic stiffness constant at 10 MHz.

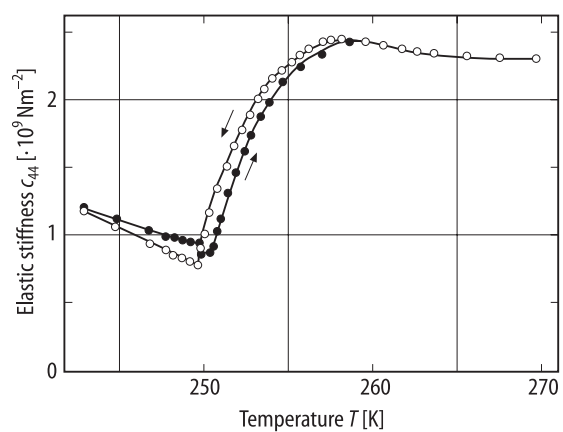


Fig. 40A-9-050. NH_4HSeO_4 . c_{44} vs. T [90Zra]. $f=10$ MHz.

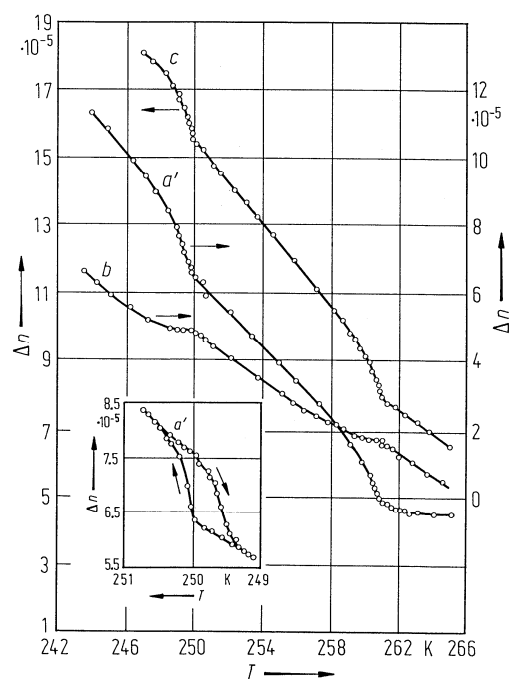


Fig. 40A-9-051. NH_4HSeO_4 . Δn vs. T [82Mar]. $\lambda = 632.8$ nm. a' , b and c denote birefringence for light propagating along the a' , b and c axes, respectively.

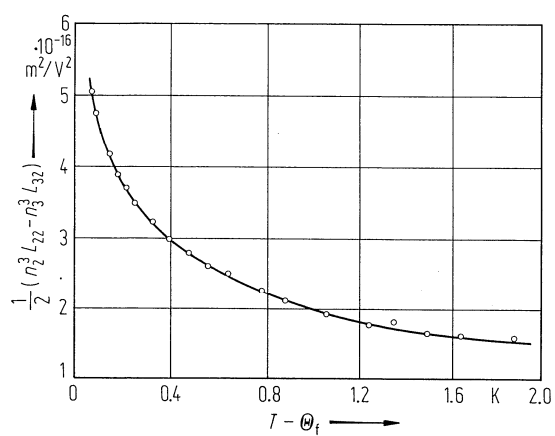


Fig. 40A-9-052. NH_4HSeO_4 . $(n_2^3 L_{22} - n_3^3 L_{32})/2$ vs. $T - \Theta_f$ [82Mar]. L_{22} , L_{32} : quadratic electrooptic constant for $\lambda = 632.8$ nm.

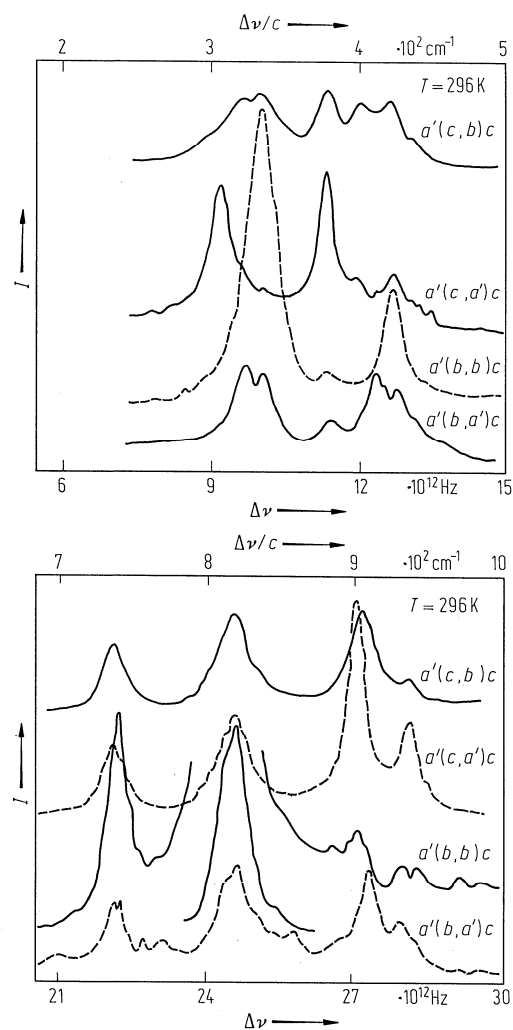


Fig. 40A-9-053. NH_4HSeO_4 . I vs. $\Delta\nu$ [83Sm]. I : intensity of Raman scattering spectra. $T = 296 \text{ K}$. Parameter: scattering geometry.

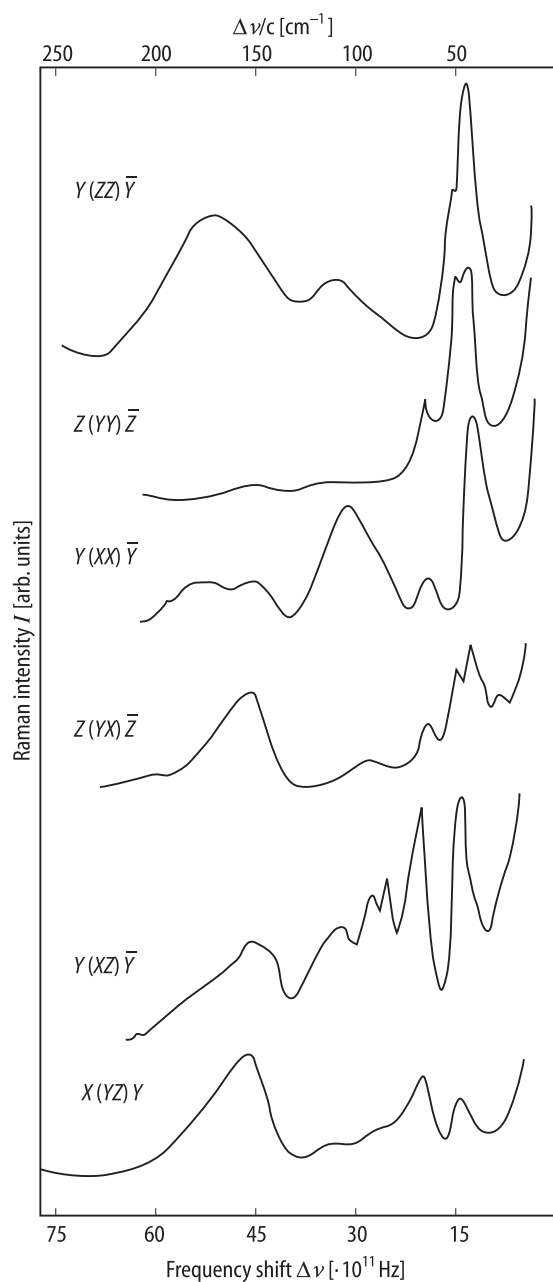


Fig. 40A-9-054. NH_4HSeO_4 . I vs. $\Delta\nu$ [90Pas]. I : intensity of Raman scattering spectra. $T = 295$ K. Parameter: scattering geometry.

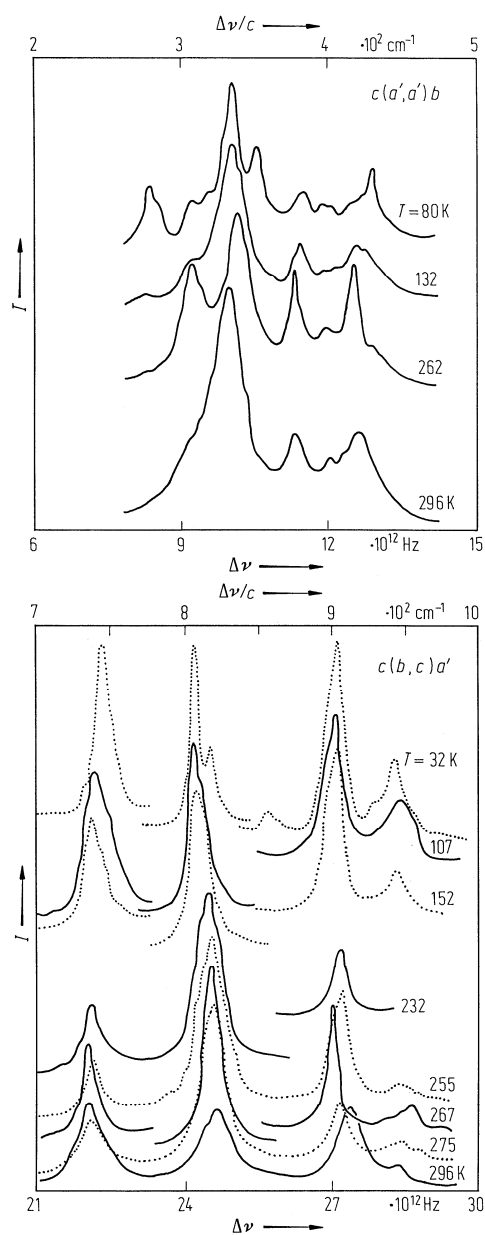


Fig. 40A-9-055. NH_4HSeO_4 . I vs. $\Delta\nu$ [83Smo]. I : intensity of Raman scattering spectra. Parameter: T .

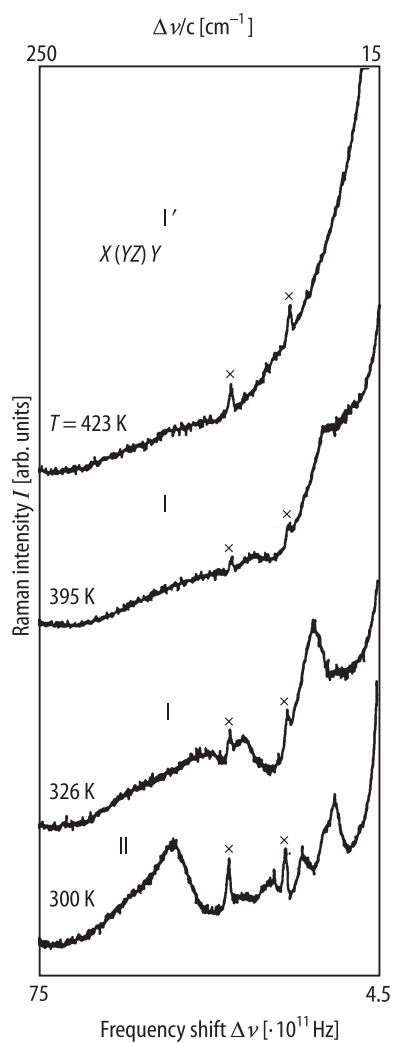


Fig. 40A-9-056. NH_4HSeO_4 . I vs. $\Delta\nu$ [90Pas]. I : intensity of Raman scattering spectra. Parameter: T . Crosses denote the laser lines.

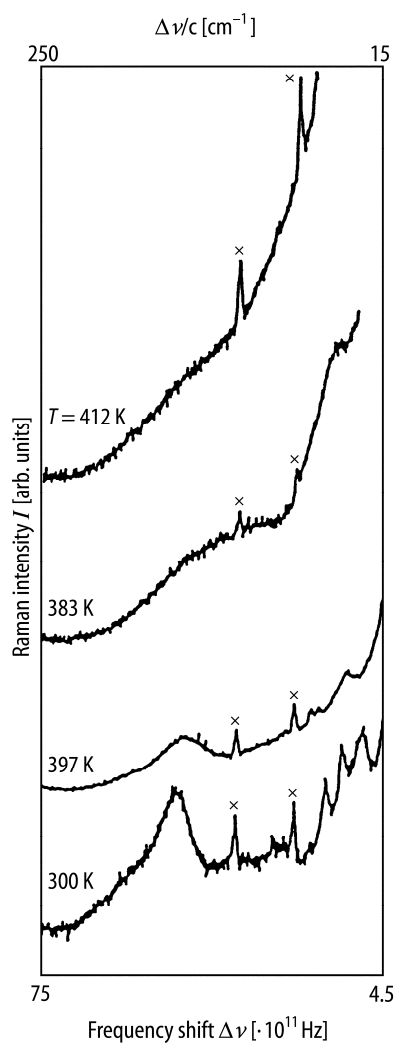


Fig. 40A-9-057. ND_4DSeO_4 . I vs. $\Delta\nu$ [90Pas]. I : intensity of Raman scattering spectra. Parameter: T . Crosses denote the laser lines.

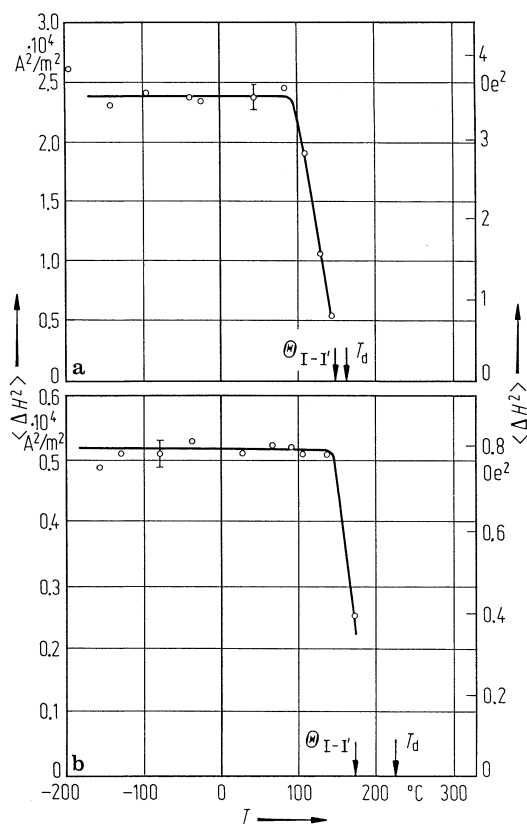


Fig. 40A-9-058. NH_4HSeO_4 , RbHSeO_4 . $\langle \Delta H^2 \rangle$ vs. T [84Mos]. $\langle \Delta H^2 \rangle$: second moment of proton NMR line of polycrystalline (a) NH_4HSeO_4 and (b) RbHSeO_4 . T_d : decomposition temperature.

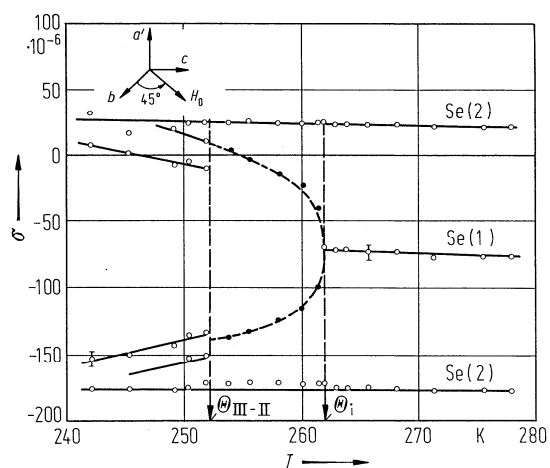


Fig. 40A-9-059. NH_4HSeO_4 . ^{77}Se chemical shift vs. T [83Ale]. Open circle: positions of the spectral lines; full circle: positions of the edge singularities. θ_i : temperature of incommensurate ordering of protons.

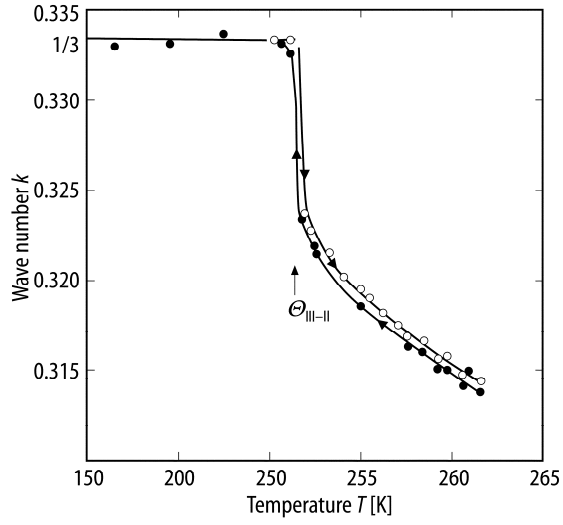


Fig. 40A-9-060. NH_4HSeO_4 . k vs. T [89Den]. k : incommensurate wave vector in phase II. Cooling run (full circle), warming run (open circle).

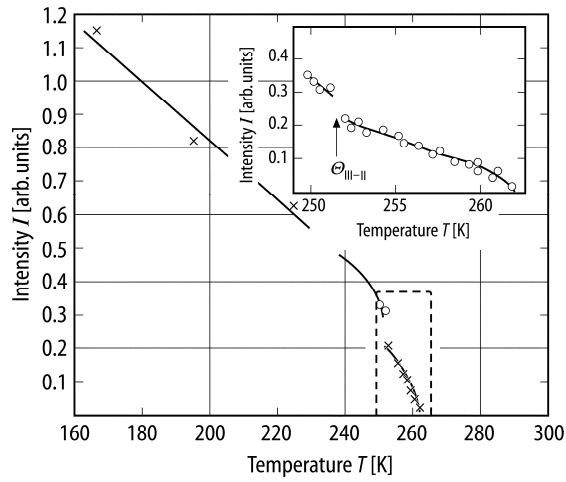
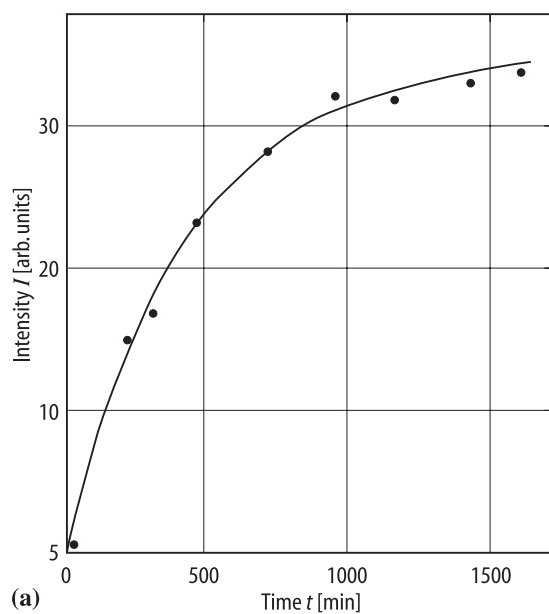
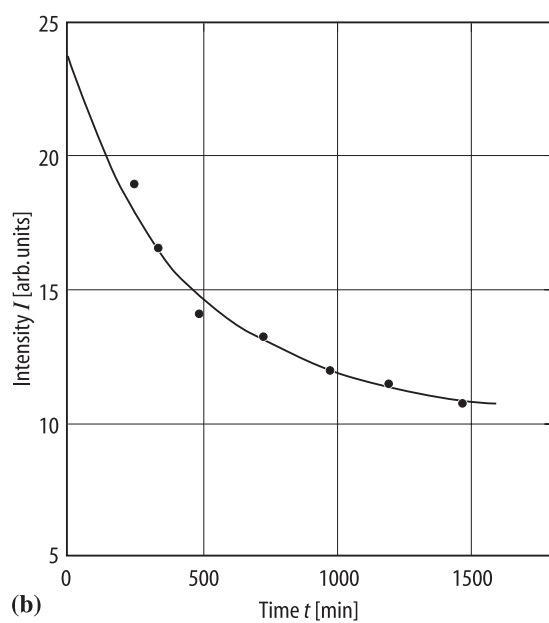


Fig. 40A-9-061. NH_4HSeO_4 . I vs. T [89Den]. I : integrated intensity of $(-2, 2, \pm q)$ reflection of neutrons.



(a)



(b)

Fig. 40A-9-062. ND_4DSeO_4 . I vs. t [89Den]. I : integrated intensity of neutrons. $T = 307.1$ K. (a) $(0, 2, 1)$ reflection, (b) $(-2, 2, \pm 1/2)$ reflection.