

Fig. 44A-2-001. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. Crystal structure of phase I [73Kru]. Projection on (001). SeO_4 tetrahedra are delineated. Bonds of Na and NH_4 with their surrounding oxygens are shown by straight lines and hydrogen bonds by wavy lines. Bonds shown by broken lines indicate those translationally identical along [001]. See also Table 44A-2-003.

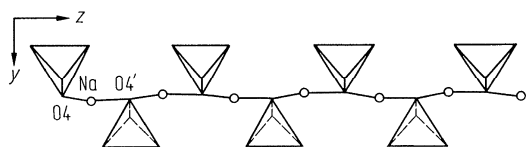


Fig. 44A-2-002. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. Crystal structure of phase I [73Kru]. SeO_4 tetrahedra linked by Na ions viewed along [100].

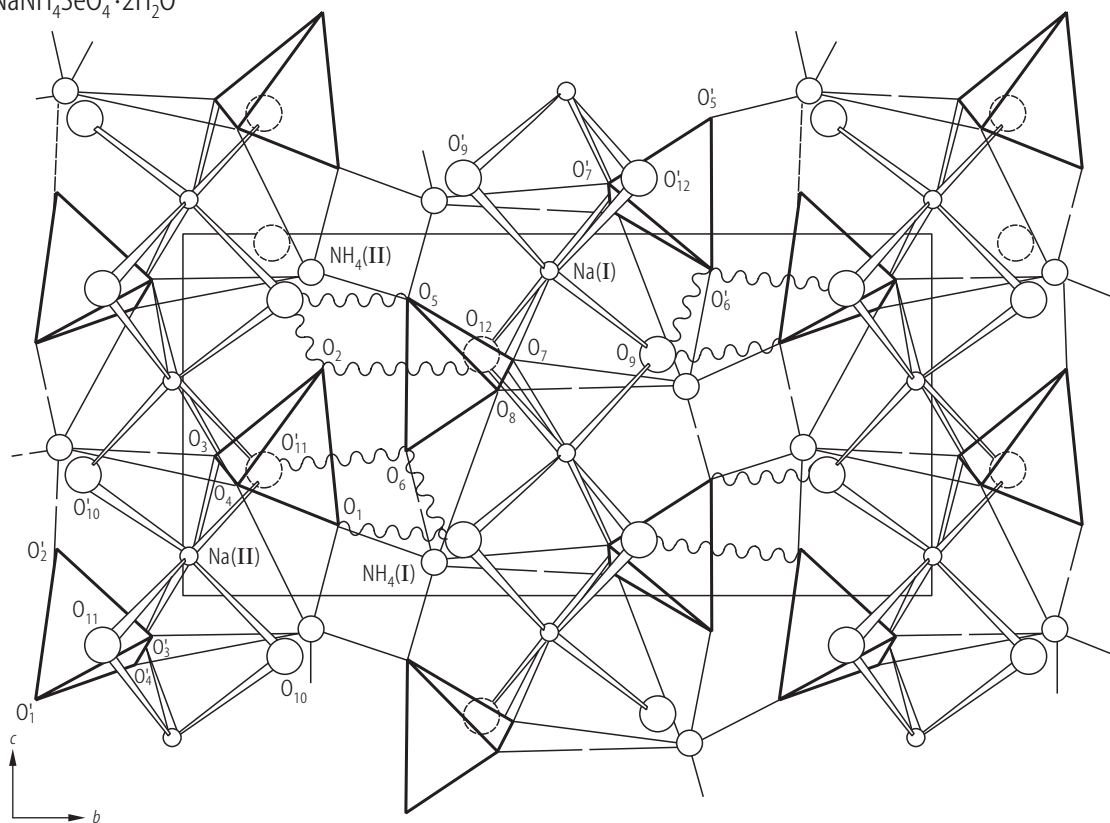


Fig. 44A-2-003. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. Crystal structure of phase II [76Kru]. Projection on (100). SeO_4 tetrahedra are delineated. Bonds of Na and NH_4 with their surrounding oxygens are shown by straight lines and hydrogen bonds by wavy lines. Bonds shown by broken lines indicate those translationally identical along [100]. Primed atoms are connected with basis atoms by symmetry operations.

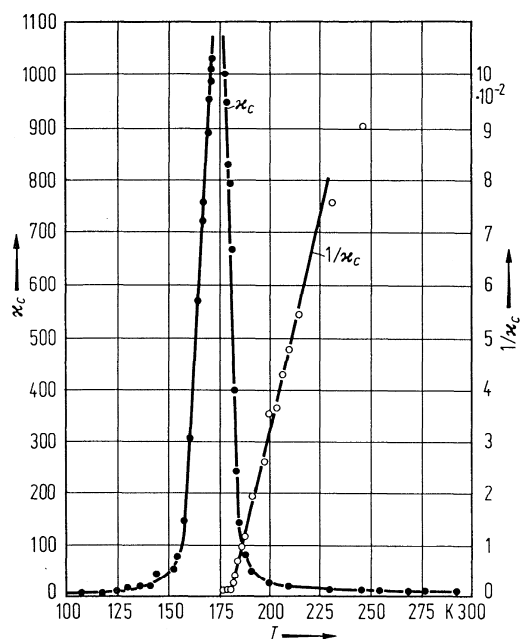


Fig. 44A-2-004. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. κ_c , $1/\kappa_c$ vs. T [71Ale]. κ_c : low frequency dielectric constant along c axis.

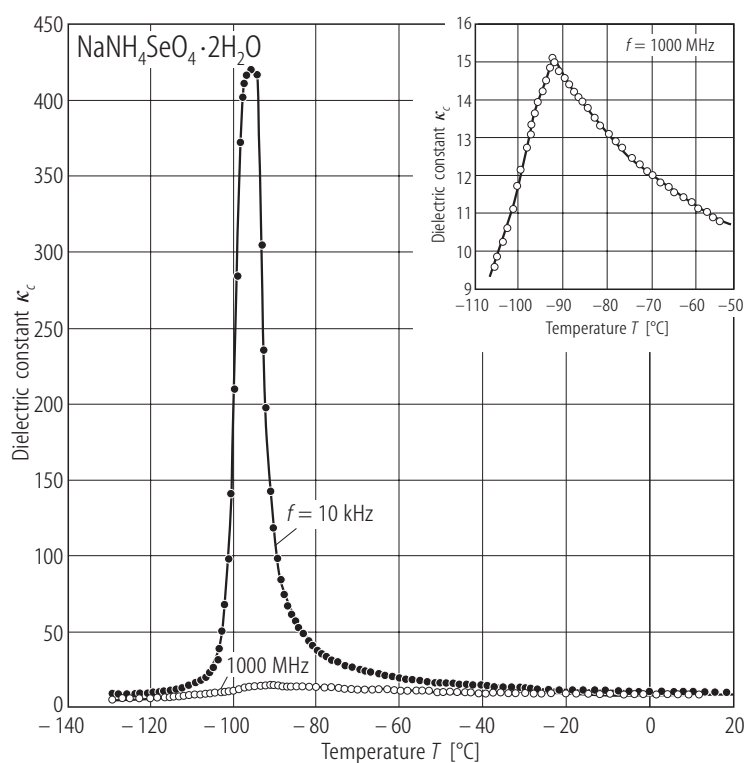


Fig. 44A-2-005. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. κ_c vs. T [88Miy]. Parameter: f .

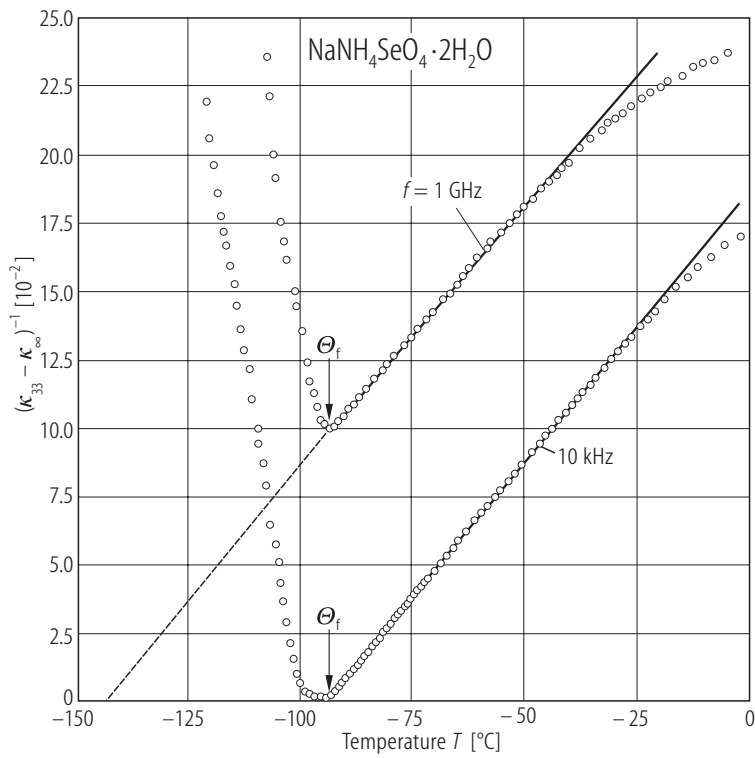


Fig. 44A-2-006. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. $1/(\kappa_{33} - \kappa_\infty)$ vs. T [88Miy]. $f = 10 \text{ kHz}, 1 \text{ GHz}$. $\kappa_\infty = 5.0$.

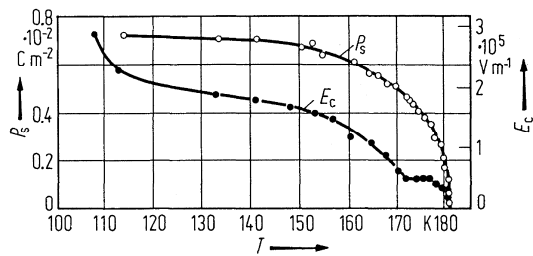


Fig. 44A-2-007. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. P_s, E_c vs. T [71Zai].

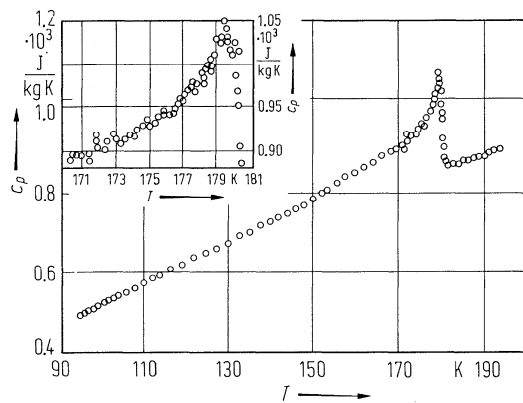


Fig. 44A-2-008. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. c_p vs. T [72Ale]. c_p : specific heat capacity at constant pressure.

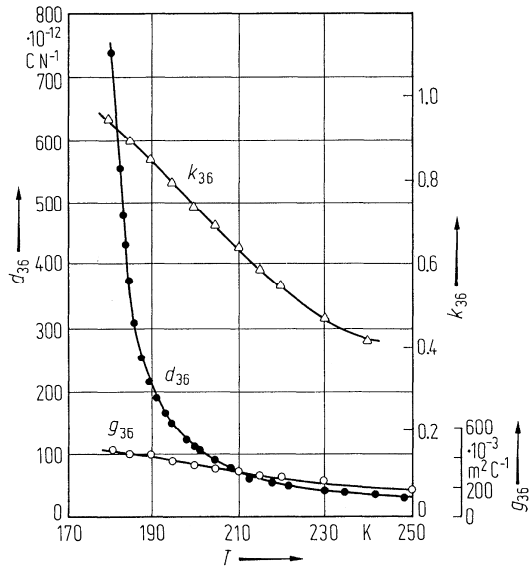


Fig. 44A-2-009. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. k_{36} , d_{36} , g_{36} vs. T [75Zai].

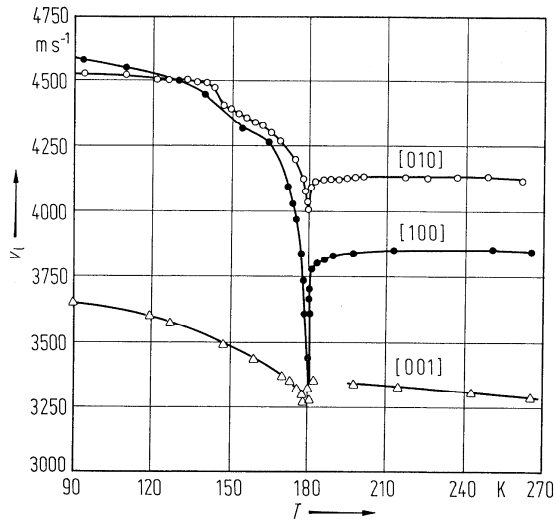


Fig. 44A-2-010. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. v_l vs. T [75Kru]. v_l : velocities of the longitudinal elastic waves propagating along the [100], [010], and [001] directions.

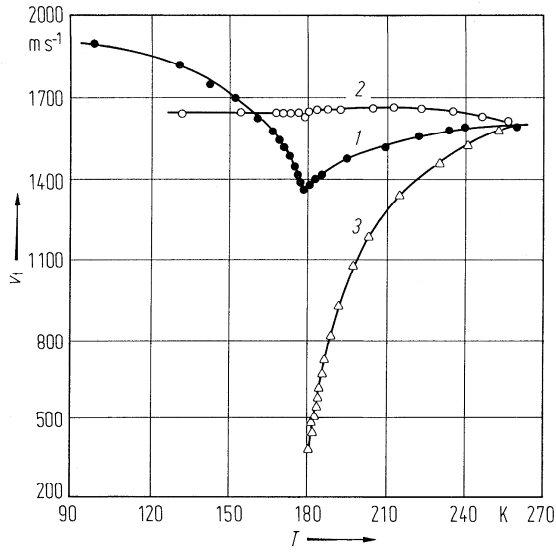


Fig. 44A-2-011. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. v_t vs. T [75Kru]. v_t : sound velocities of the transverse waves with the wave number vector q and polarization vector e . Curve 1: $q \parallel [001]$, $e \parallel [100]$; 2: $q \parallel [010]$, $e \parallel [001]$; 3: $q \parallel [100]$, $e \parallel [010]$.

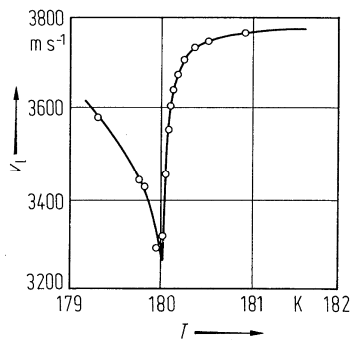


Fig. 44A-2-012. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. v_l vs. T [75Kru]. v_l : sound velocity of the longitudinal wave propagating along $[100]$ near Θ_i .

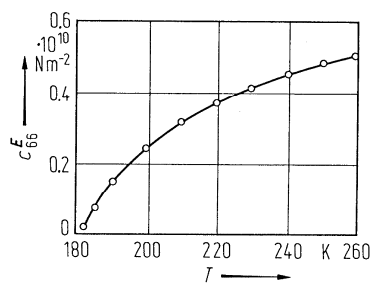


Fig. 44A-2-013. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. c_{66}^E vs. T [75Kru]. c_{66}^E : elastic stiffness at constant E .

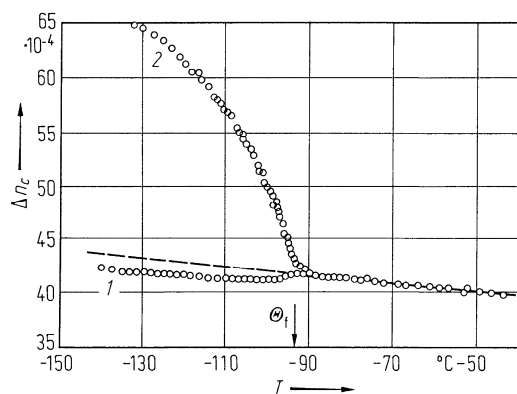


Fig. 44A-2-014. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. Δn_c vs. T [74Ani]. Parameter: E_{bias} , Δn_c : birefringence. Curve 1: $E_{\text{bias}} = 0$; 2: $E_{\text{bias}} = 3 \cdot 10^3 \text{ kV m}^{-1}$. $\lambda = 633 \text{ nm}$.

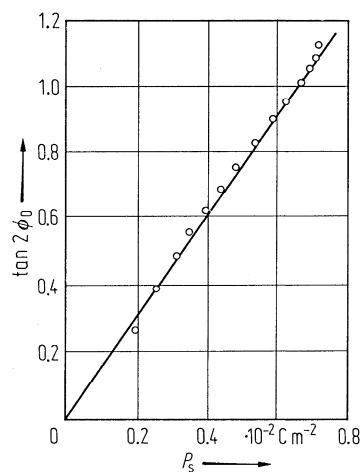


Fig. 44A-2-015. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. $\tan 2\phi_0$ vs. P_s [73Ale]. ϕ_0 : rotation angle of the optical indicatrix around the c axis.

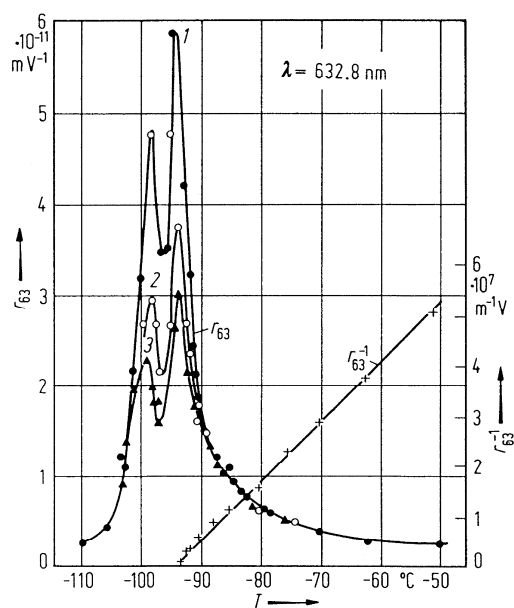


Fig. 44A-2-016. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. r_{63} , r_{63}^{-1} vs. T [72Ani]. Parameter: E_{bias} . Curve 1: $E_{\text{bias}} = 0$; 2: $E_{\text{bias}} = 1 \cdot 10^5 \text{ V m}^{-1}$; 3: $E_{\text{bias}} = 4 \cdot 10^5 \text{ V m}^{-1}$.

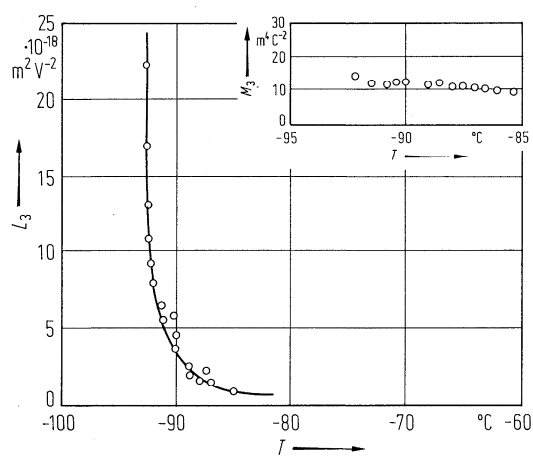


Fig. 44A-2-017. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. L_3 , M_3 vs. T [74Ani]. $L_3 = n_b^3 L_{23} - n_a^3 L_{13}$, $M_3 = n_b^3 M_{23} - n_a^3 M_{13}$. $L_{\lambda\mu}$: quadratic electrooptic constant for E ; $M_{\lambda\mu}$: quadratic electrooptic constant for P . $\lambda = 633 \text{ nm}$.

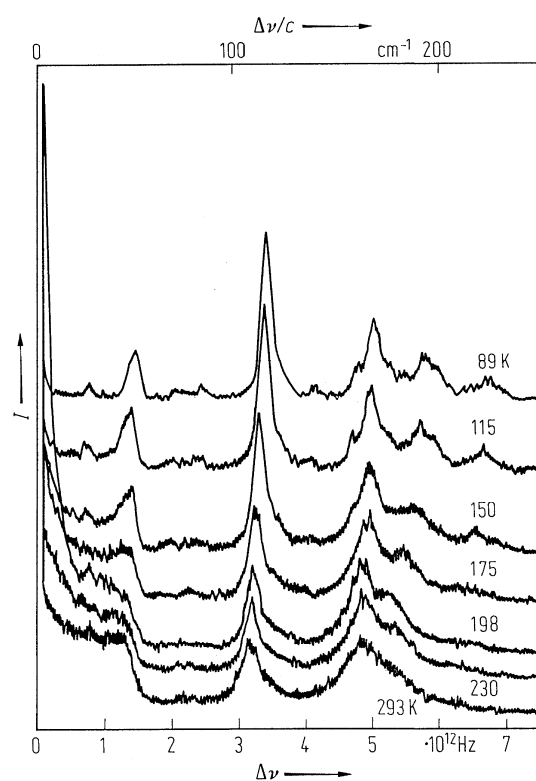


Fig. 44A-2-018. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. I vs. $\Delta\nu$ [75Faw]. I : Raman scattering intensity in the low frequency region. Scattering geometry is $c(ba)b$. Parameter: T .

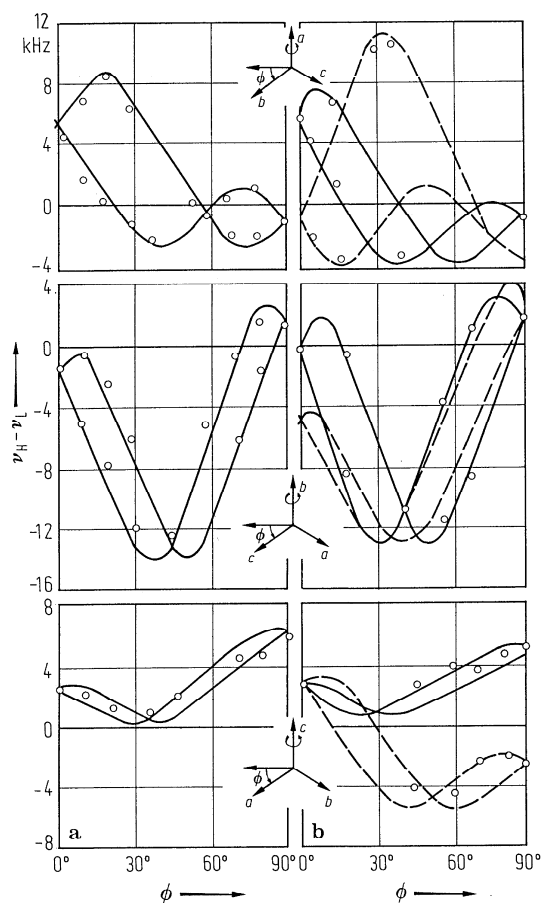


Fig. 44A-2-019. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. $\nu_{\text{H}} - \nu_{\text{L}}$ vs. ϕ [75Shi]. $\nu_{\text{H}} - \nu_{\text{L}}$: shift in the spectrum of ^{23}Na on rotation around the a , b and c axes. (a) phase I, $T = -15^\circ\text{C}$ (points for $p = 9 \cdot 10^8$ Pa; solid lines for $p = \text{atmospheric pressure}$); (b) phase II (points for $p = 4.5 \cdot 10^8$ Pa, $T = -144^\circ\text{C}$; solid and broken lines for $p = \text{atmospheric pressure}$, $T = -120^\circ\text{C}$). Phase II has two different Na sites.

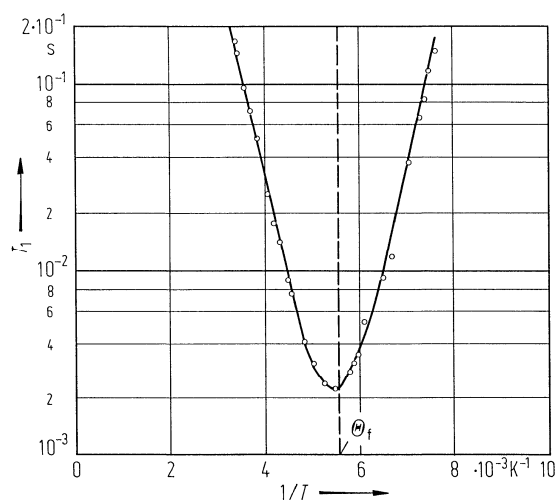


Fig. 44A-2-020. $\text{NaNH}_4\text{SeO}_4 \cdot 2\text{H}_2\text{O}$. T_1 vs. $1/T$ [80She]. T_1 : proton spin-lattice relaxation time, $\nu_{\text{L}} = 10$ MHz.