

Fig. 40A-5-001. NH_4HSO_4 . Structure of phase I [71Nel]. Pseudoorthorhombic system ($B2_1/a$) in phase I is used. Schematic projection on (010). A quarter of the pseudoorthorhombic cell is shown, which consists of the parts labelled a, b, c and d in Fig. 40A-5-003. The atoms of the asymmetric unit are unprimed and those related by symmetry are primed. Fraction y coordinates [$\cdot 10^2$] are inscribed in each atom, except for the hydrogen atoms, which are at height 36, 64, 13 and 87 for hydrogen atoms 9, 9', 10 and 10', respectively. See Table 40A-5-002.

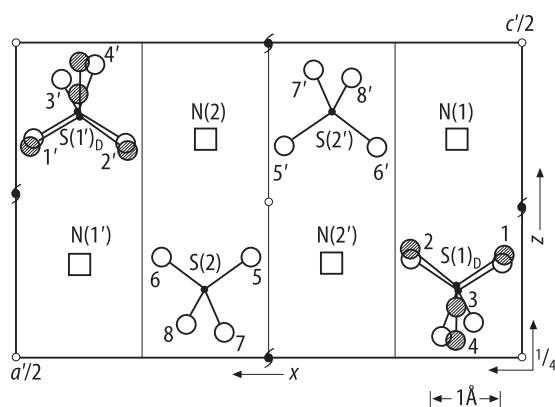


Fig. 40A-5-002. NH_4HSO_4 . Structure of phase I [72Nel]. Pseudoorthorhombic system ($B2_1/a$) in phase I is used. A quarter of the pseudoorthorhombic cell is shown. $\text{SO}_4(1)$ is disordered equally between two sites.

r	q	p	n	m	k	j	i
h	g	f	e	d	c	b	a

← x →

↑ z

Fig. 40A-5-003. NH_4HSO_4 . Structure of phase I [71Nel]. The method of labelling symmetry related atoms. The full pseudoorthorhombic cell with the cell vectors a' , b' , c' is divided into sixteen "subcells" with $a'/8$, b' , $c'/2$ each containing one formula unit. These cells are labelled from a to r. S(1), O(1), O(2), O(3), O(4), N(1) and H(9) are in a; S(2), O(5), O(6), O(7), O(8), N(2) and H(10) are in c. These atoms constitute the asymmetric unit. Symmetrically equivalent atoms in b are designated S(2b), O(5b), etc. Atoms in the adjacent unit cell along $\pm x$, $\pm y$, $\pm z$ are shown by single, double and triple primes, respectively, e.g. $[\text{O}(1h')]''$ is the atom symmetrically equivalent to O(1) in the h subcell of the unit cell next to the principal one along $\pm x$, and next to this second cell along $\pm y$.

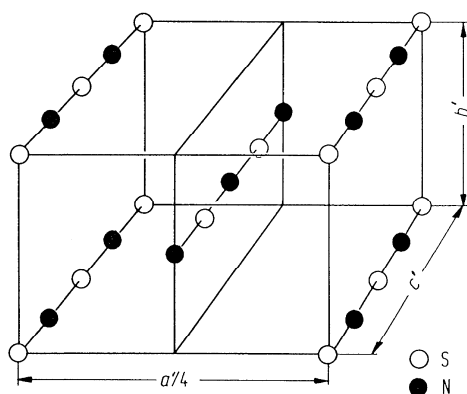


Fig. 40A-5-004. NH_4HSO_4 . Structure of phase I [71Nel]. A schematic representation of the approximate disposition of the sulfur and nitrogen atoms. The origin has been moved to a sulfur atom.

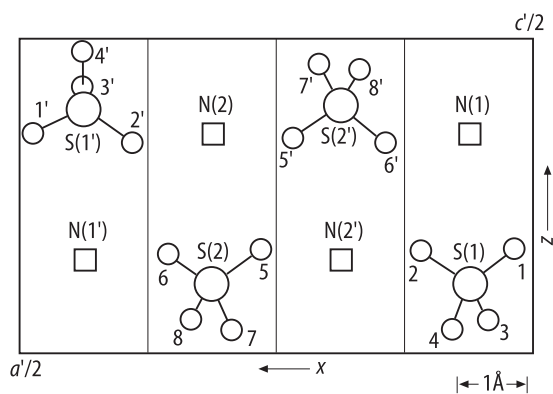


Fig. 40A-5-005. NH_4HSO_4 . Structure of phase II [72Nel]. Pseudoorthorhombic system (Ba) in phase II is used. Projection on (010). A quarter of the pseudoorthorhombic cell is shown.

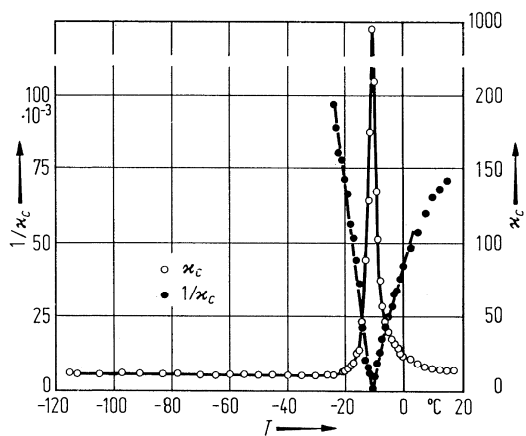


Fig. 40A-5-006. ND_4DSO_4 . κ_c , $1/\kappa_c$ vs. T [70Kas]. $f = 1.5$ kHz.

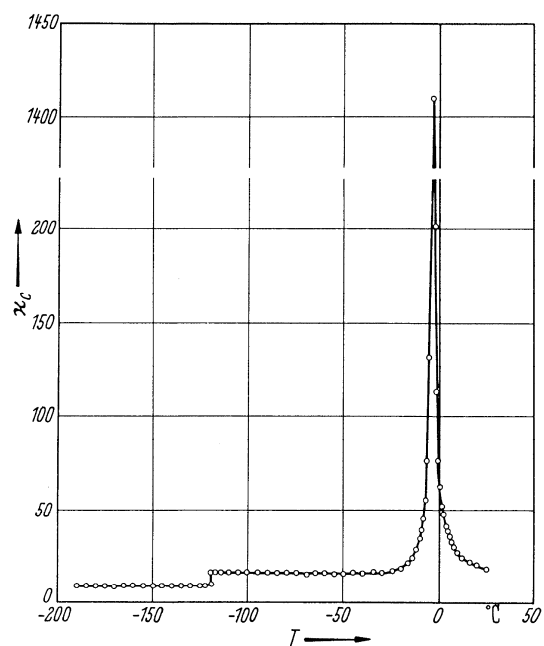


Fig. 40A-5-007. NH_4HSO_4 . κ_c vs. T [58Pep]. $f = 10$ kHz.

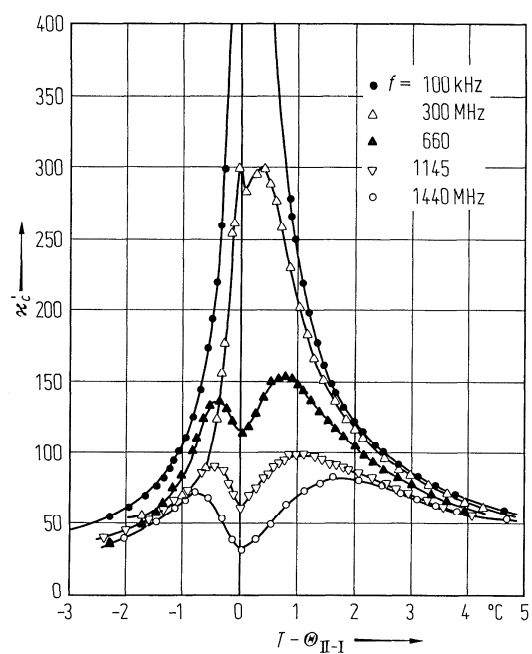


Fig. 40A-5-008. NH_4HSO_4 . κ'_c vs. $T - \Theta_{\text{II-I}}$ [76Tam]. Parameter: f . $\Theta_{\text{II-I}} = -2.3$ °C.

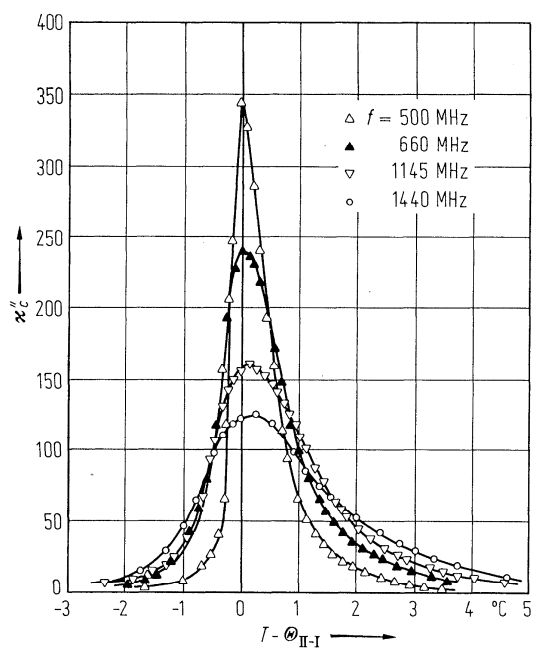


Fig. 40A-5-009. NH_4HSO_4 . κ_c'' vs. $T - \Theta_{II-I}$ [76Tam]. Parameter: f . $\Theta_{II-I} = -2.3$ °C.

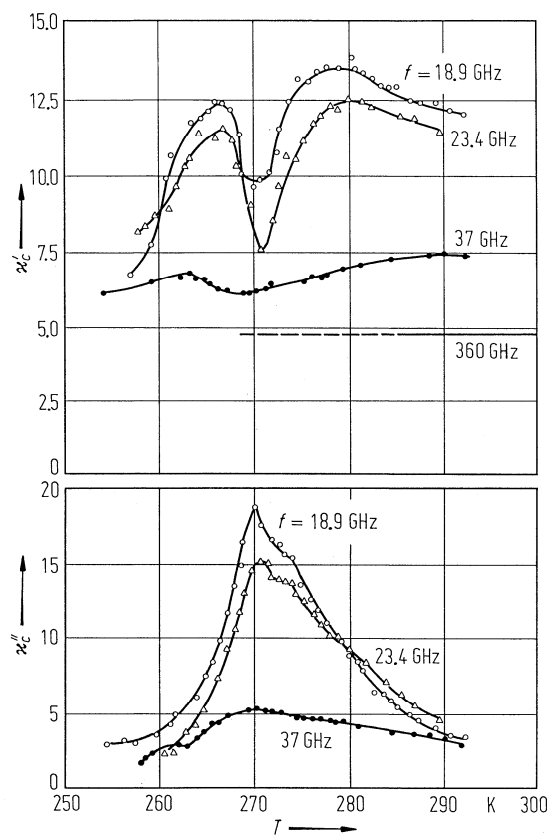


Fig. 40A-5-010. NH_4HSO_4 . κ_c' , κ_c'' vs. T [81Kra]. Parameter: f .

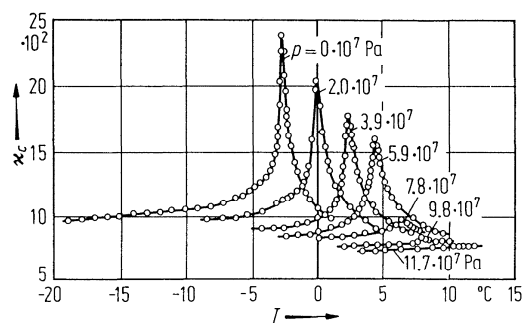


Fig. 40A-5-011. NH_4HSO_4 . κ_c vs. T [68Pol]. Parameter: p .

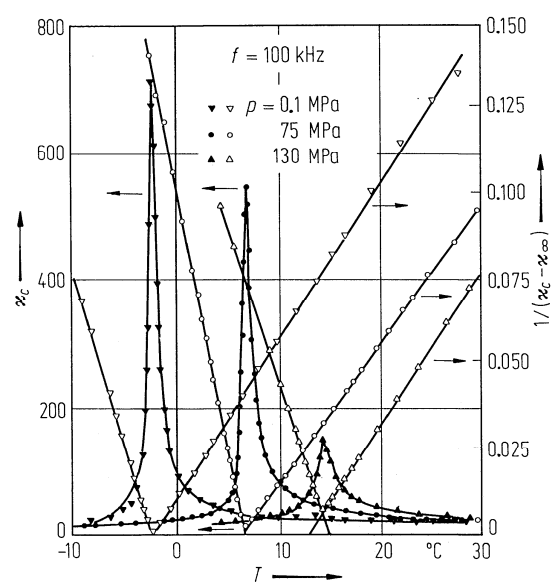


Fig. 40A-5-012. NH_4HSO_4 . κ_c , $1/(\kappa_c - \kappa_\infty)$ vs. T [83Tam]. Parameter: p . κ_∞ : temperature independent term of the dielectric constant.

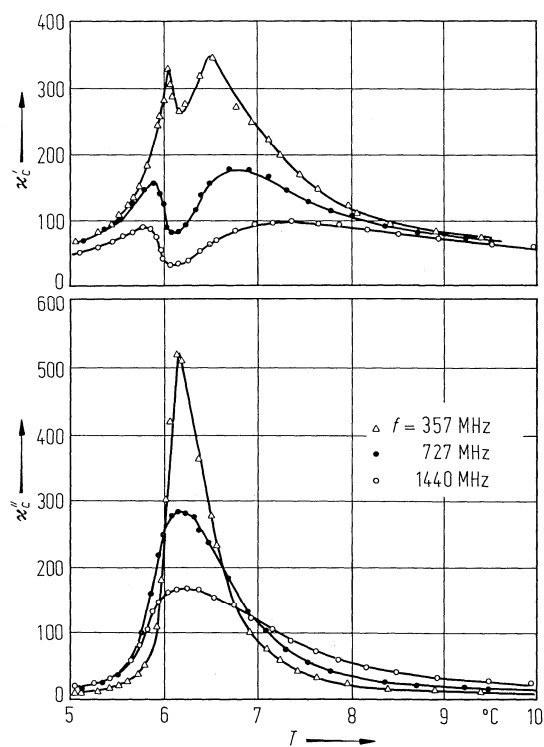


Fig. 40A-5-013. NH_4HSO_4 . κ'_c, κ''_c vs. T [83Tam] at $p = 70$ MPa. Parameter: f .

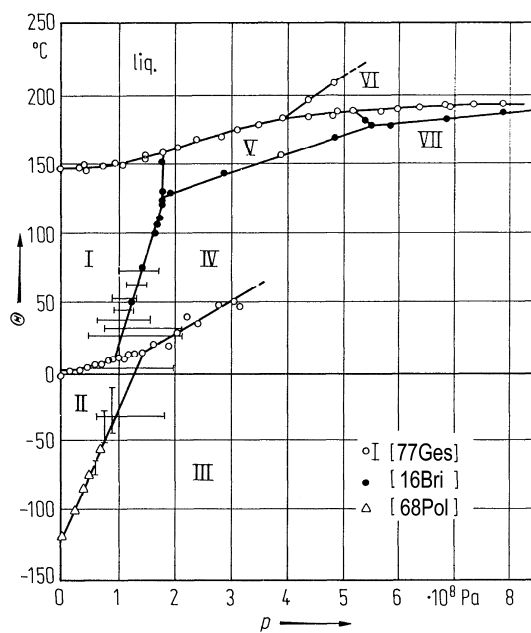


Fig. 40A-5-014. NH_4HSO_4 . Θ vs. p [16Bri], [68Pol], [77Ges].

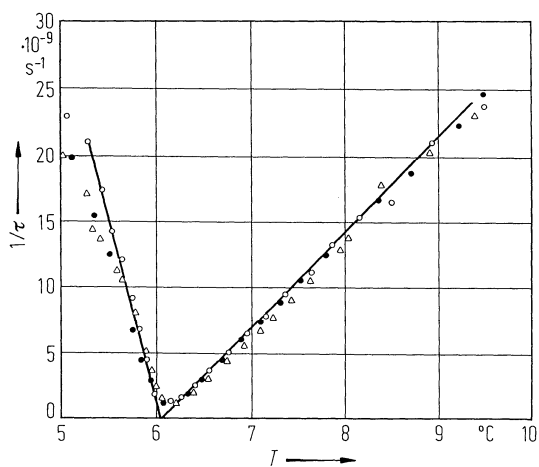


Fig. 40A-5-015. NH_4HSO_4 . $1/\tau$ vs. T [83Tam] at $p = 7.0 \cdot 10^7$ Pa. τ : dielectric relaxation time measured at 357 MHz (open triangle), 727 MHz (full circle) and 1440 MHz (open circle).

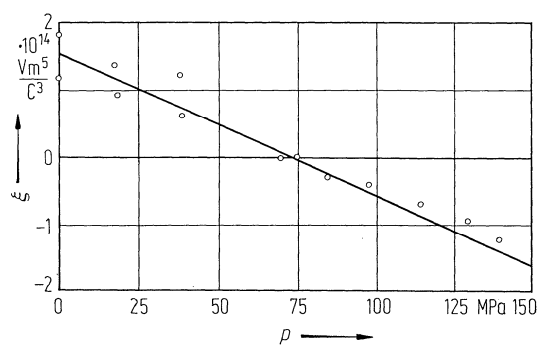


Fig. 40A-5-016. NH_4HSO_4 . ξ vs. p [83Tam]. ξ : coefficient of power series expansion of electric field strength; $E = (1/\chi_p)P + \xi P^3 + \zeta P^5$.

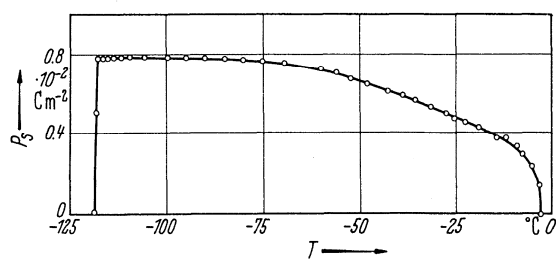


Fig. 40A-5-017. NH_4HSO_4 . P_s vs. T [58Pep].

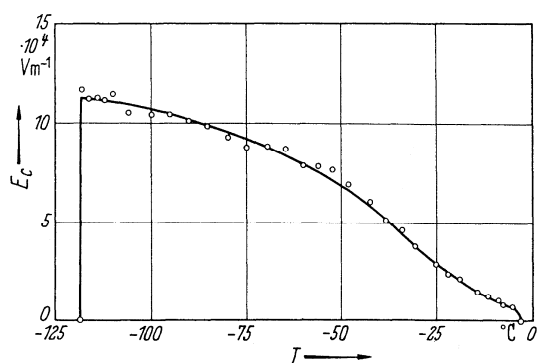


Fig. 40A-5-018. NH_4HSO_4 . E_c vs. T [58Pep].

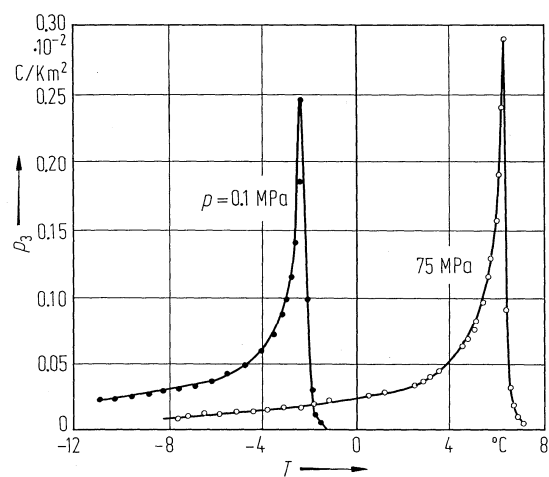


Fig. 40A-5-019. NH_4HSO_4 . p_3 vs. T [83Tam]. Parameter: p . p_3 : pyroelectric coefficient along the c axis.

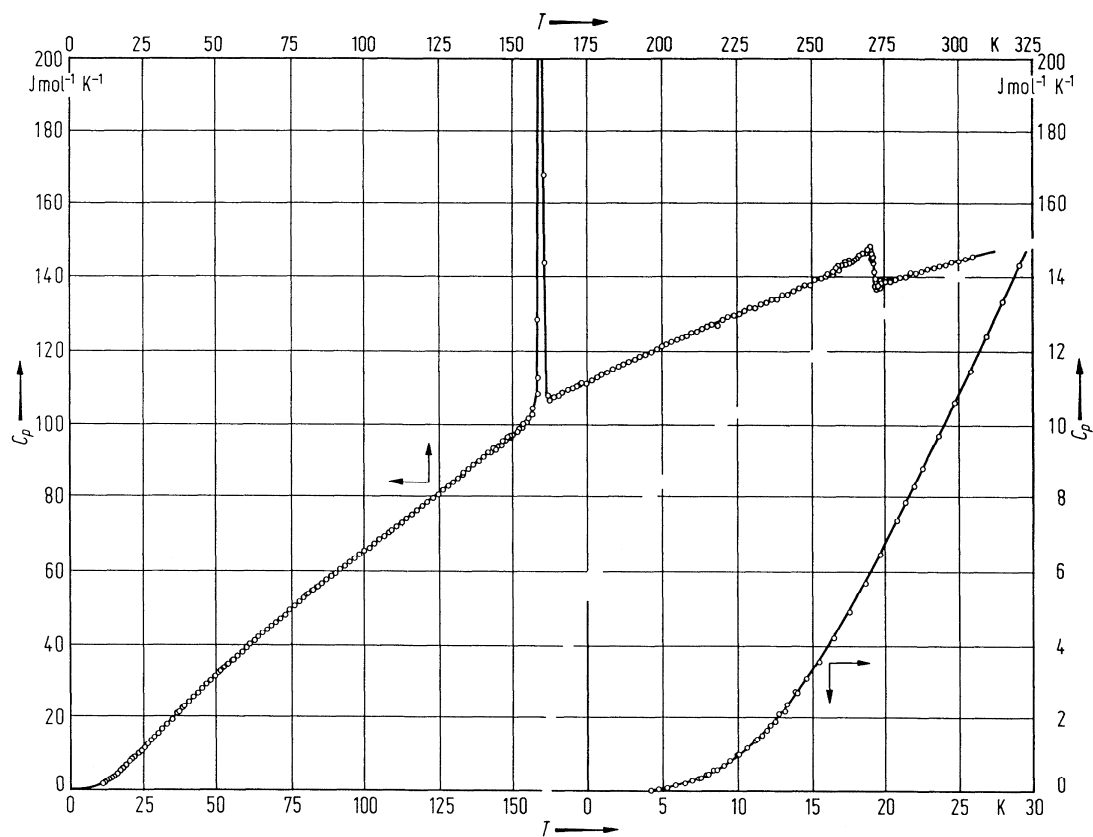


Fig. 40A-5-020. NH_4HSO_4 . C_p vs. T [73Chi].

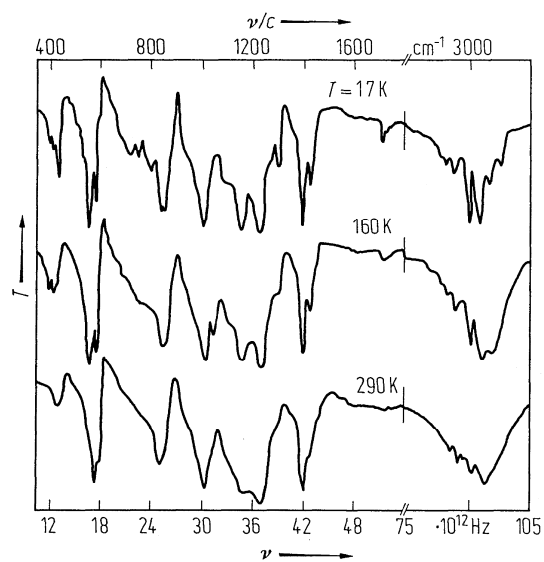


Fig. 40A-5-021. NH_4HSO_4 . T vs. ν [71Sch]. T : Transmittance. ν : frequency of the incident infrared radiation. Parameter: T .

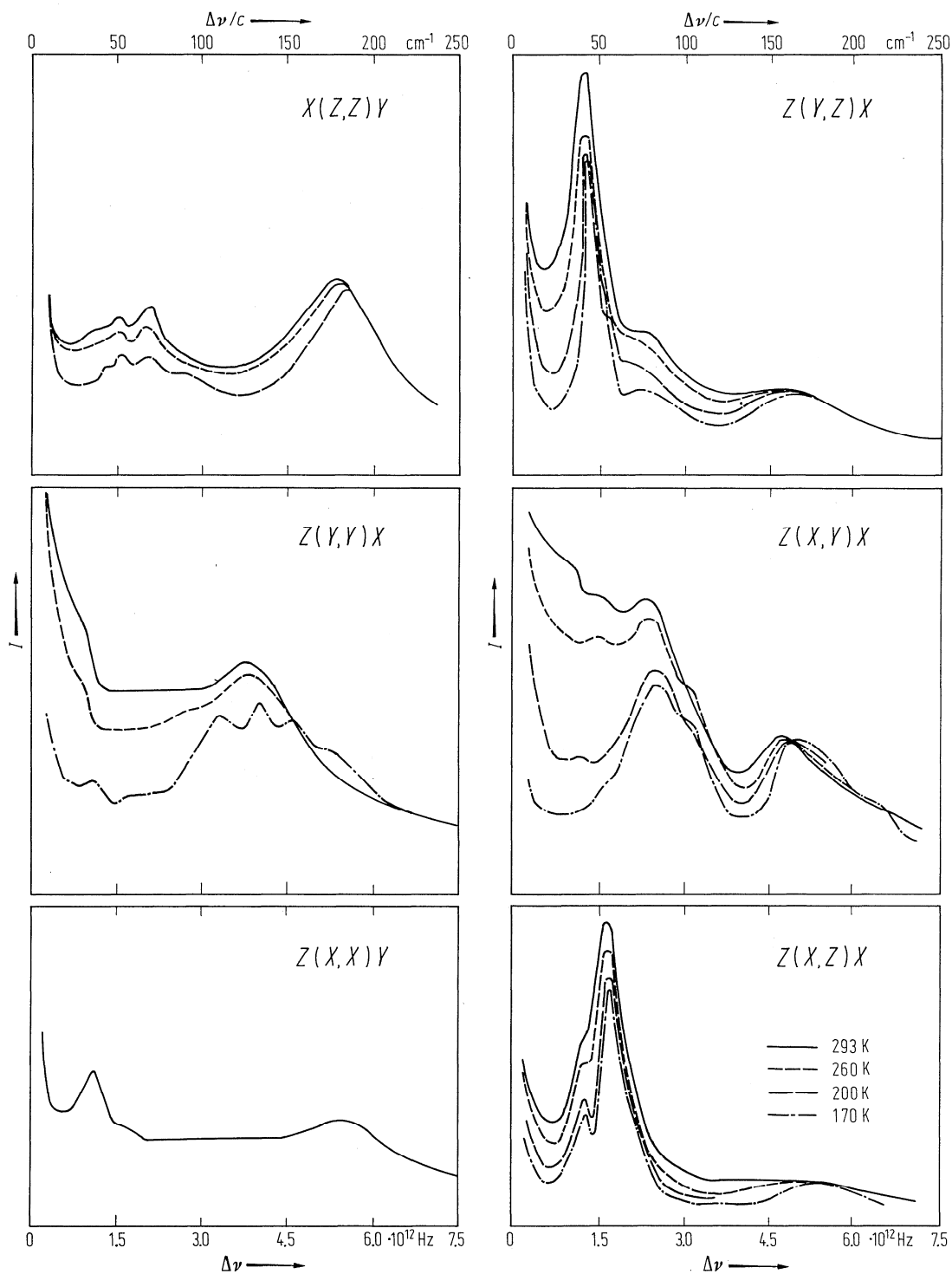


Fig. 40A-5-022. NH_4HSO_4 . I vs. $\Delta\nu$ [73Art]. I : Raman scattering intensity for various scattering geometries. Parameter: T . $X \parallel a'$, $Y \parallel b'$, $Z \parallel c'$ (pseudoorthorhombic cell).

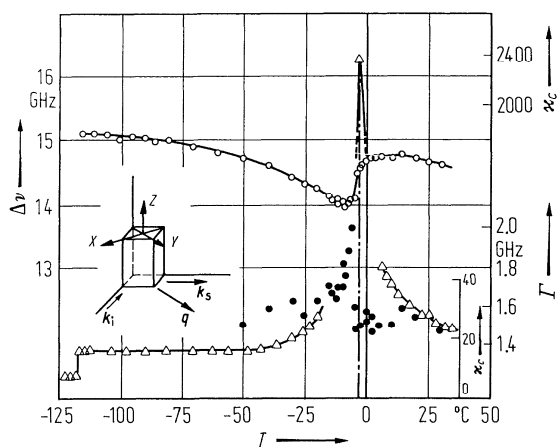


Fig. 40A-5-023. NH_4HSO_4 . $\Delta\nu$, Γ , κ_c vs. T [77Hik]. Open circles: $\Delta\nu$, Brillouin shift; full circles: Γ , linewidth; triangles: κ_c at 50 kHz. $X \parallel a$, $Y \parallel b$, $Z \parallel c$ (monoclinic cell).

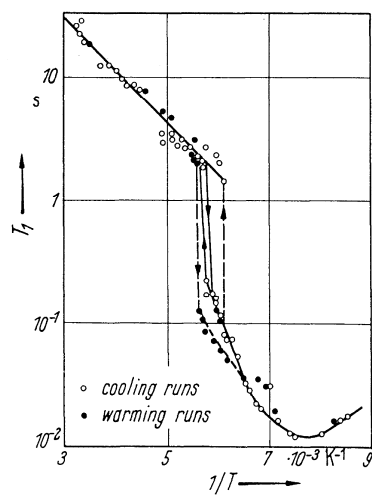


Fig. 40A-5-024. NH_4HSO_4 . T_1 vs. T [62Mil]. T_1 : spin-lattice relaxation time of proton at $3.0 \cdot 10^7$ Hz.

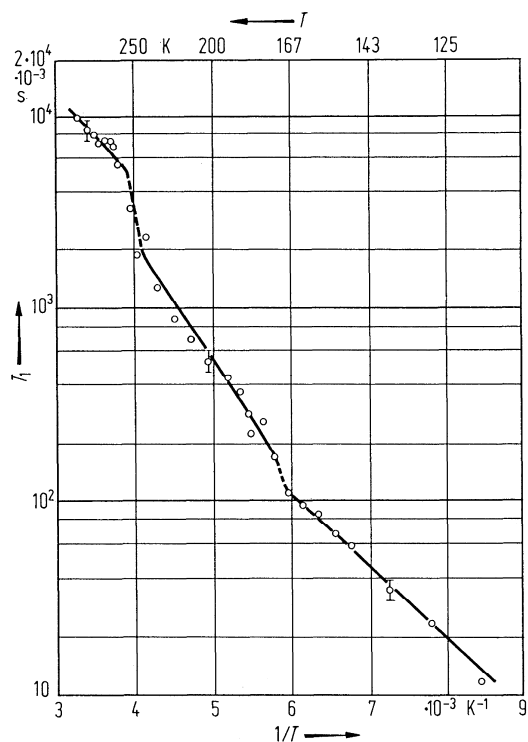


Fig. 40A-5-025. ND_4DSO_4 . T_1 vs. $1/T$ [72Tro]. T_1 : spin-lattice relaxation time of deuteron.

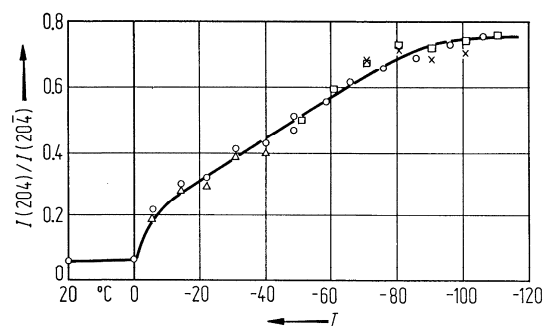


Fig. 40A-5-026. NH_4HSO_4 . $I(204)/I(20\bar{4})$ vs. T [70Oga]. Intensity ratio of X-ray Bragg reflections (pseudo-orthorhombic cell).

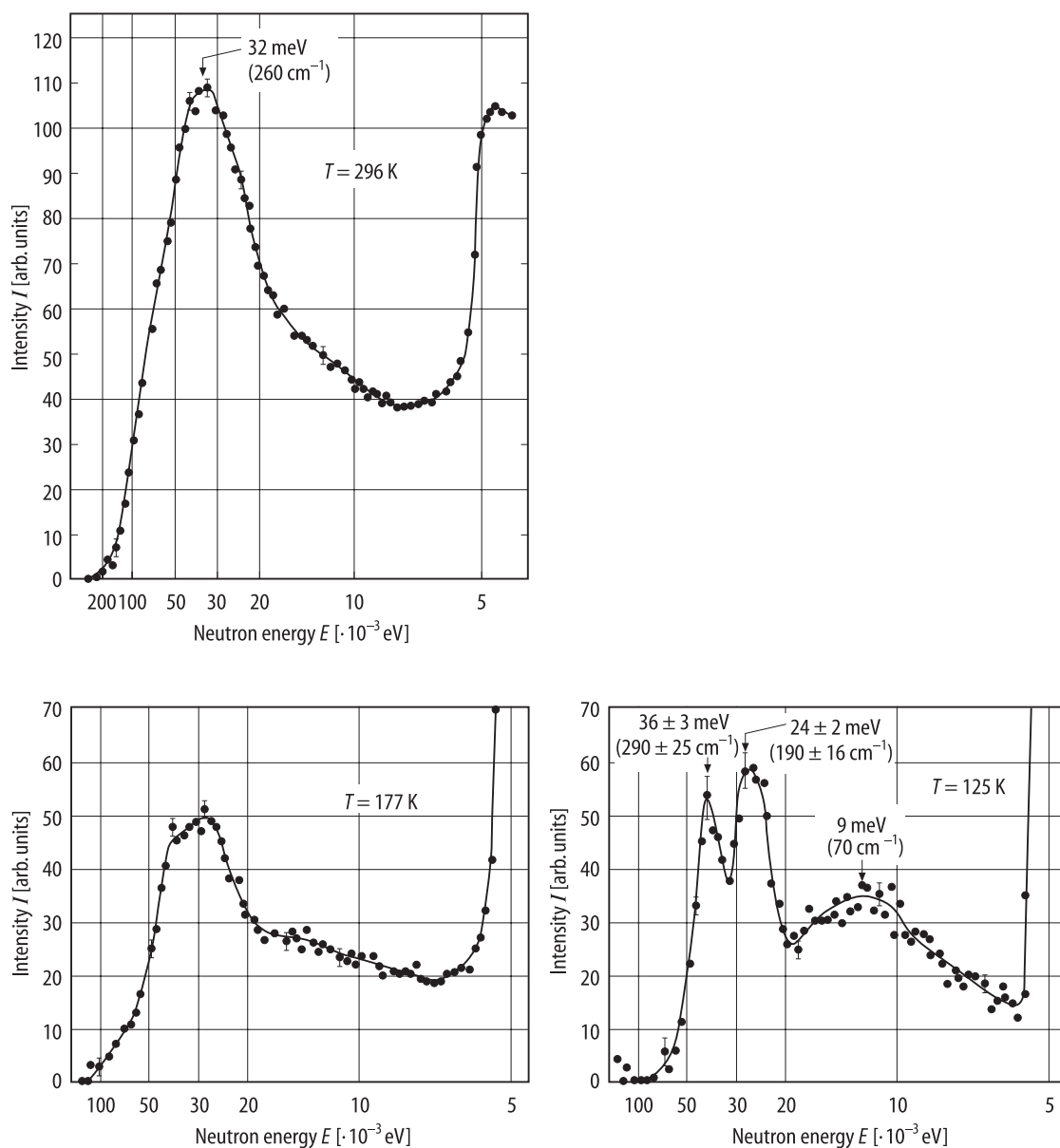


Fig. 40A-5-027. NH_4HSO_4 . I vs. E [73Art]. I : neutron scattering intensity at 296 K, 177 K, 125 K. E : neutron energy.