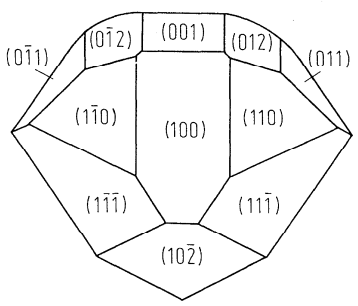

Fig. 24A-1-001. $Sn_2P_2S_6$. Crystal form [74Car2]. Miller indices are referred to the axial system of the space group Pc.

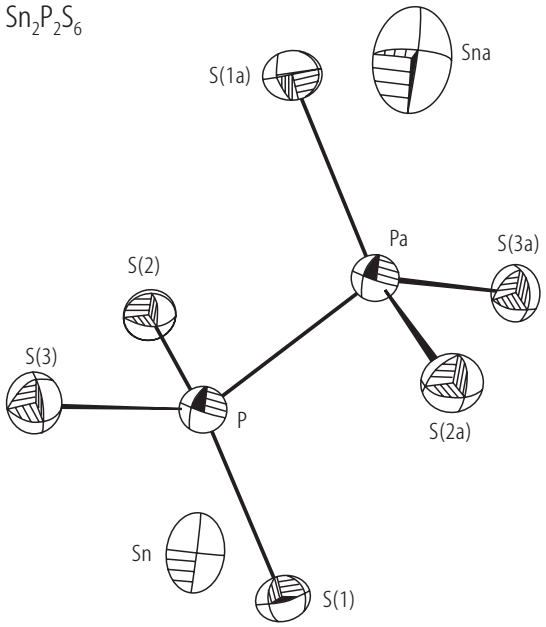

Fig. 24A-1-002. $Sn_2P_2S_6$. A perspective view of the $Sn_2P_2S_6$ unit with thermal ellipsoids [92Sco]. T = 110 °C. The inversion center is at the midpoint of the P–P bond.

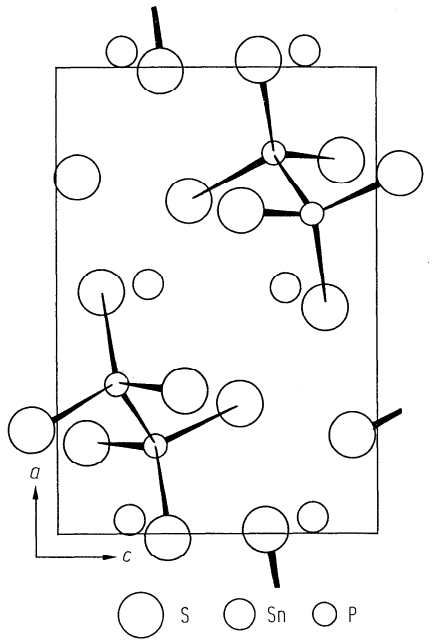

Fig. 24A-1-003. $Sn_2P_2S_6$. Crystal structure in the phase II based on the space group Pn [74Dit]. Projection on (010).

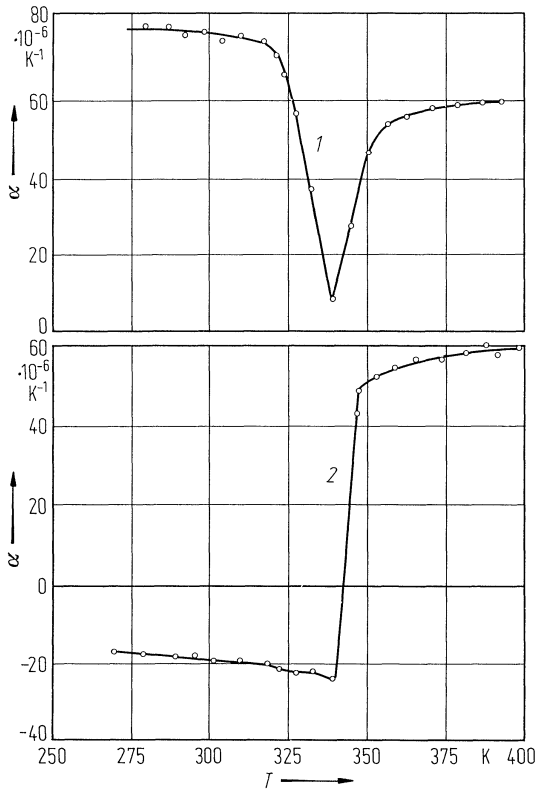

Fig. 24A-1-004. $Sn_2P_2S_6$. α vs. T [80Gom]. α: linear thermal expansion coefficient. *1*: [010] direction, *2*: nearly parallel to the ferroelectric axis [100].

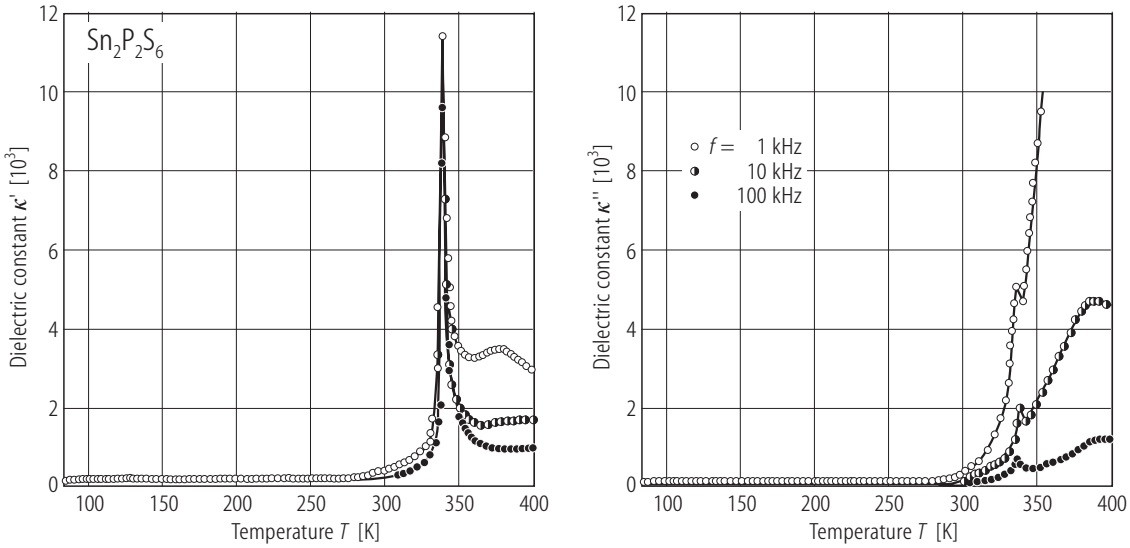

Fig. 24A-1-005. $Sn_2P_2S_6$. κ', κ'' vs. T [95Mor]. Parameter: f. $\boldsymbol{E} \perp (11\bar{1})$.

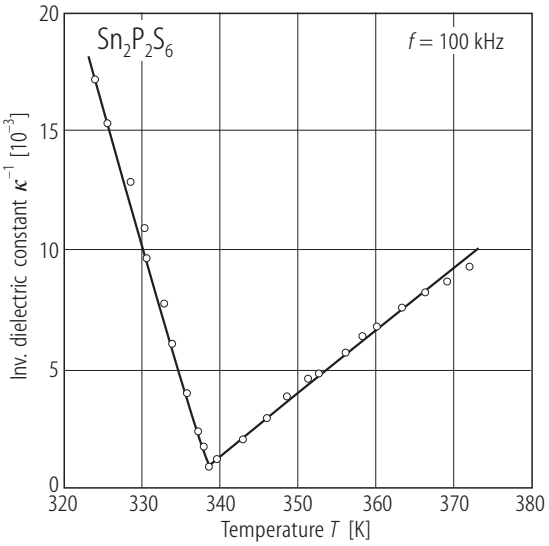

Fig. 24A-1-006. $Sn_2P_2S_6$. κ^{-1} vs. T [95Mor]. $\boldsymbol{E} \perp (11\bar{1})$.

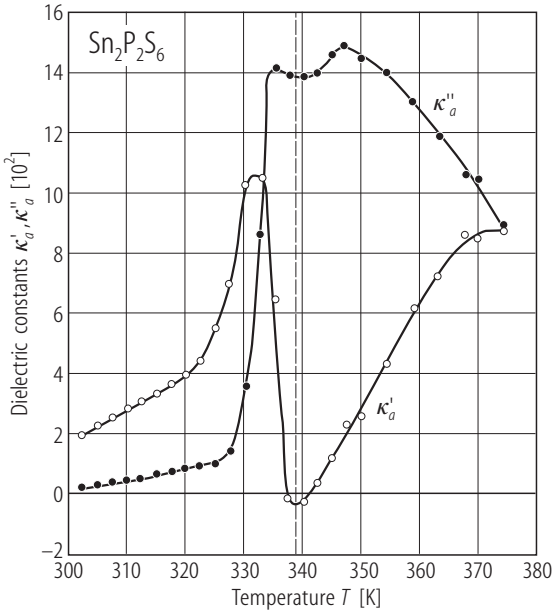

Fig. 24A-1-007. $Sn_2P_2S_6$. κ'_a, κ''_a vs. T [88Gri]. f = 78.5 GHz.

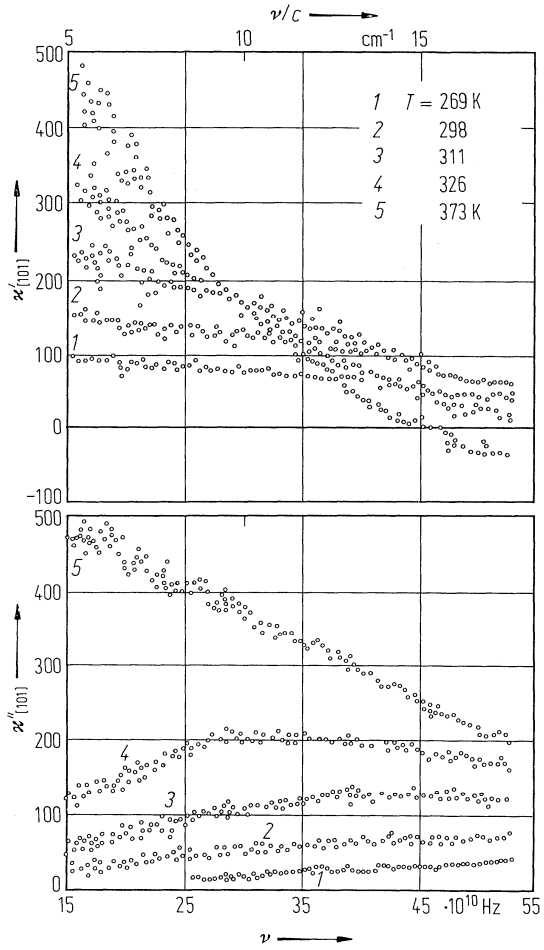

Fig. 24A-1-008. $Sn_2P_2S_6$. $\kappa'_{[101]}$, $\kappa''_{[101]}$ vs. ν obtained from submillimeter spectroscopy [85Vol]. Parameter: T.

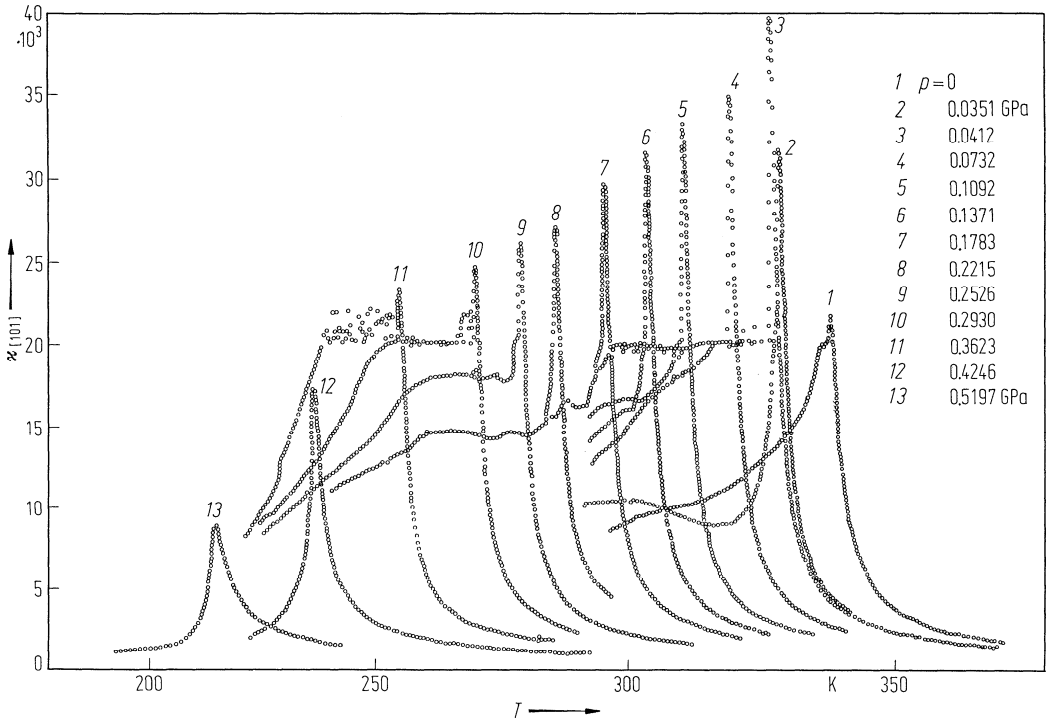

Fig. 24A-1-009. $Sn_2P_2S_6$. $\kappa_{[101]}$ vs. T [84Tya]. Parameter: p.

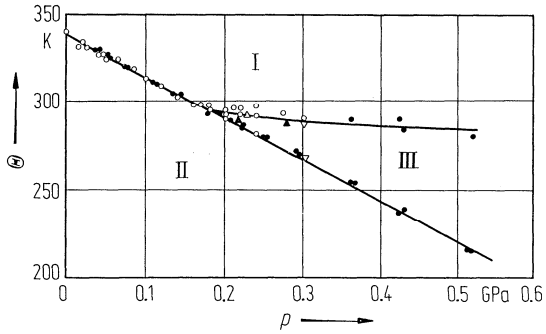

Fig. 24A-1-010. $Sn_2P_2S_6$. Θ vs. p [84Tya]. Full circle: obtained from dielectric anomalies; other symbols: from optical measurements.

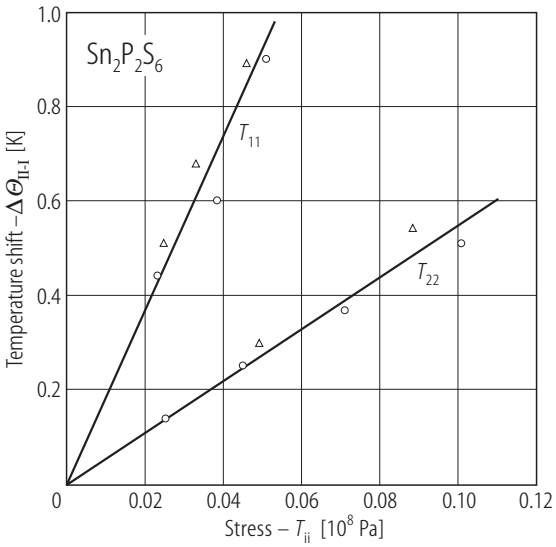

Fig. 24A-1-011. $Sn_2P_2S_6$. $-\Delta\Theta_{II-I}$ vs. $-T_{ii}$ [94Riz]. $\Delta\Theta_{II-I}$: shift of Θ_{II-I}. T_{ii}: component of stress tensor. Measured from dielectric constant (circles) and birefringence (triangles).

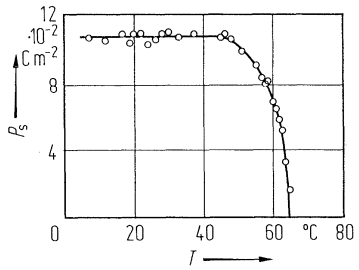

Fig. 24A-1-012. $Sn_2P_2S_6$. P_s vs. T [77But]. Measurements were made along the *a* axis.

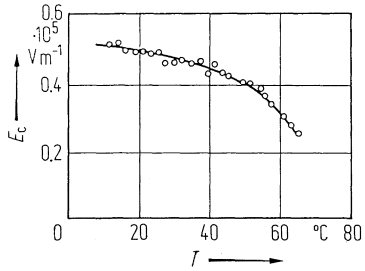

Fig. 24A-1-013. $Sn_2P_2S_6$. E_c vs. T [77But]. Measurements were made along the *a* axis.

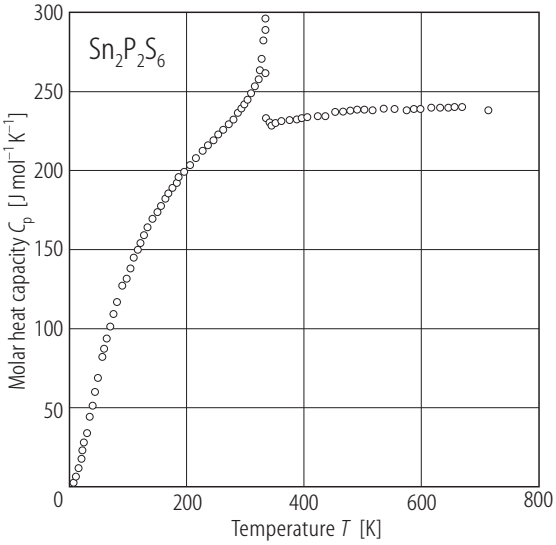

Fig. 24A-1-014. $Sn_2P_2S_6$. C_p vs. T [94Vas]. C_p: molar heat capacity at constant pressure.

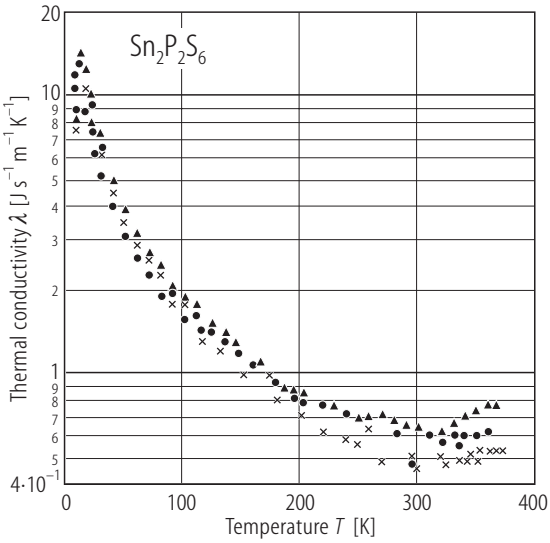

Fig. 24A-1-015. $Sn_2P_2S_6$. λ vs. T [93AlS]. λ: thermal conductivity. Cross: [100] direction, full upside triangle: [010] direction, full circle: [001] direction.

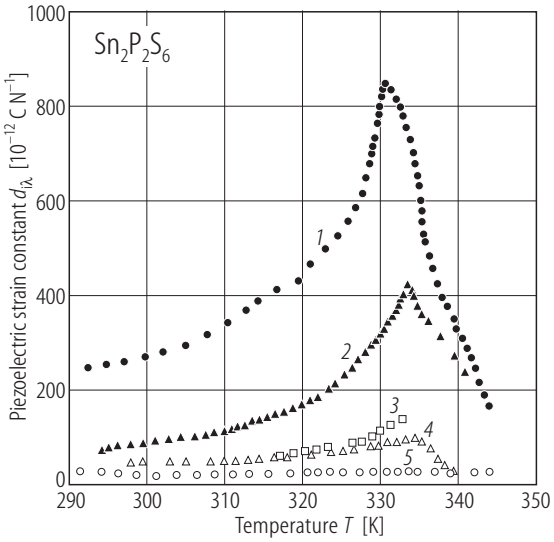

Fig. 24A-1-016. $Sn_2P_2S_6$. $d_{i\lambda}$ vs. T [90Vys2]. $d_{i\lambda}$: piezoelectric strain constant. *1*: d_{11}, *2*: d_{12}, *3*: d_{13}, *4*: d_{31}, *5*: d_{32}.

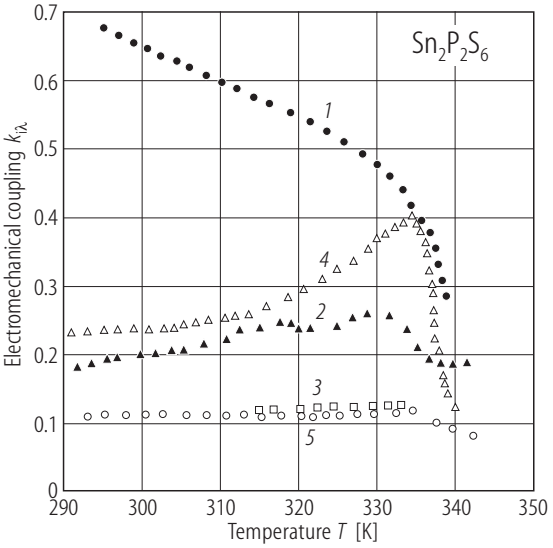

Fig. 24A-1-017. $Sn_2P_2S_6$. $k_{i\lambda}$ vs. T [90Vys2]. $k_{i\lambda}$: electromechanical coupling factor. *1*: k_{11}, *2*: k_{12}, *3*: k_{13}, *4*: k_{31}, *5*: k_{32}.

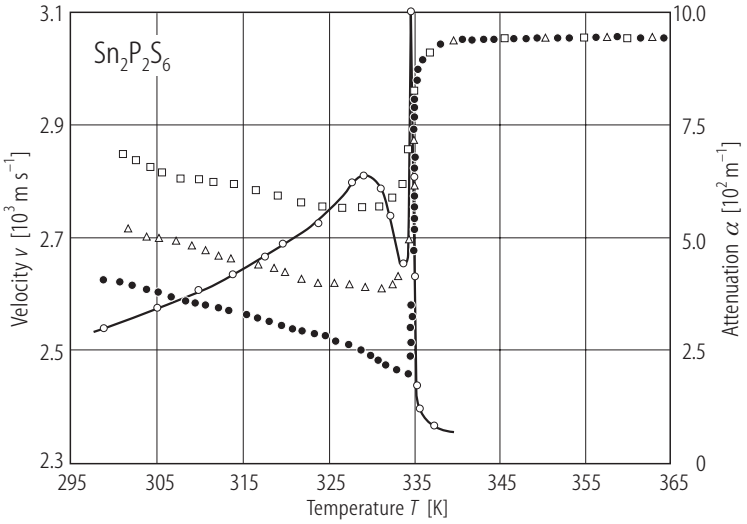

Fig. 24A-1-018. $Sn_2P_2S_6$. υ, α vs. T [88Val]. Parameter: *f*. υ: longitudinal sound velocity propagated in [100] direction; α: attenuation coefficient. Full circle: υ at 10 MHz, open circle: α at 30 MHz, triangle: υ at 50 MHz, empty square: υ at 70 MHz.

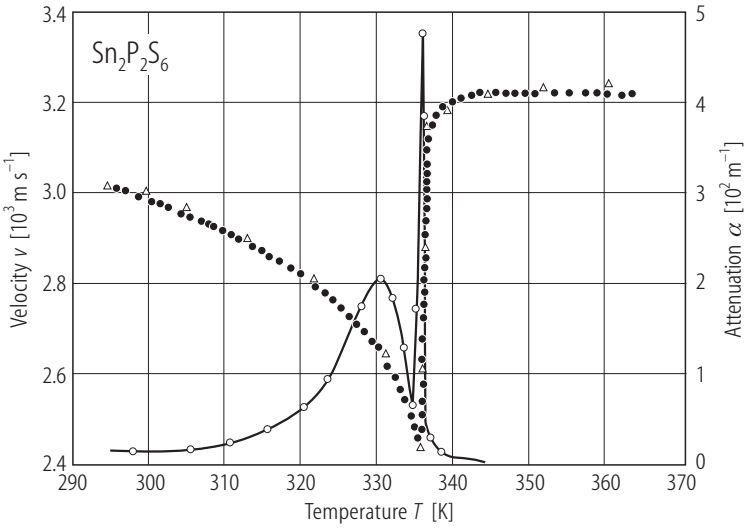

Fig. 24A-1-019. $Sn_2P_2S_6$. υ, α vs. T [88Val]. υ: longitudinal sound velocity propagated in [010] direction; α: attenuation coefficient. Full circle: υ at 10 MHz, open circle: α at 10 MHz, triangle: υ at 17 GHz obtained from Brillouin scattering [85Rit].

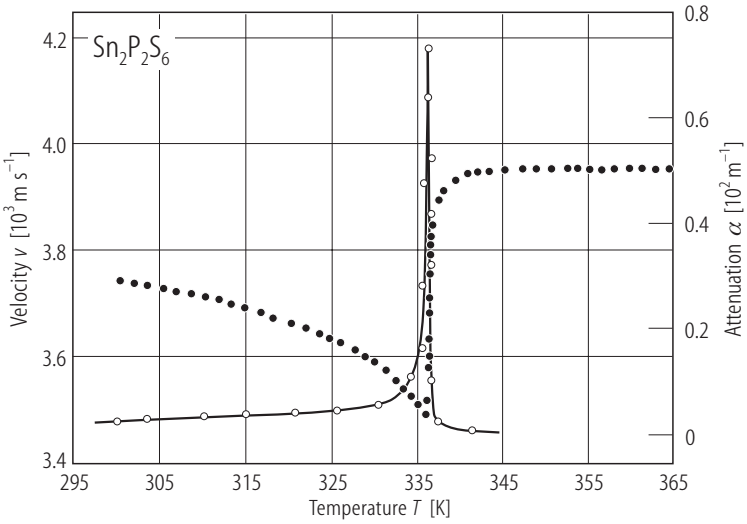

Fig. 24A-1-020. $Sn_2P_2S_6$. υ, α vs. T [88Val]. υ: longitudinal sound velocity (full circle) propagated in [001] direction; α: attenuation coefficient (open circle). f = 10 MHz.

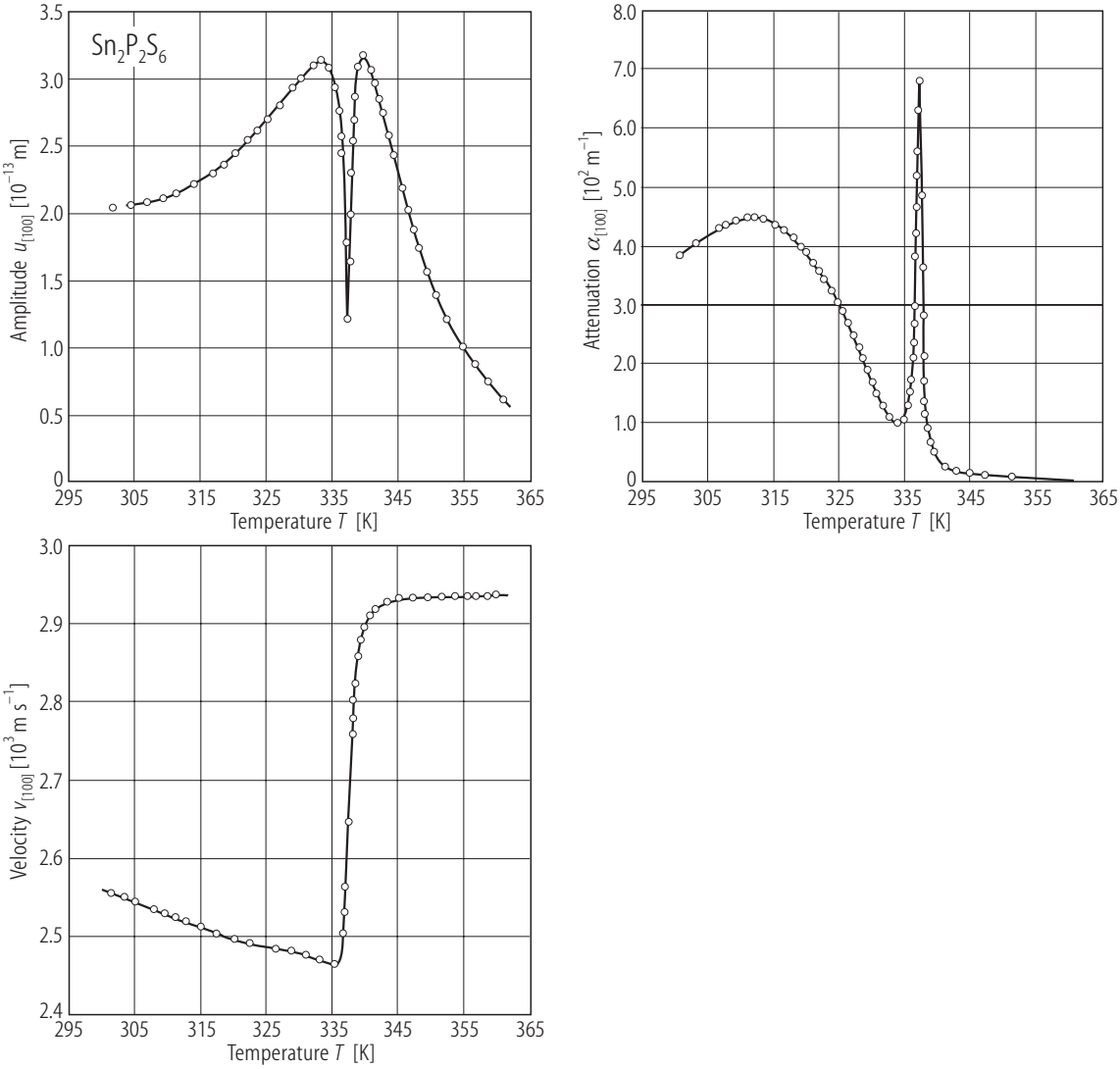

Fig. 24A-1-021. $Sn_2P_2S_6$. $\upsilon_{[100]}$, $\alpha_{[100]}$, $u_{[100]}$ vs. T [90Sam]. $\upsilon_{[100]}$, $\alpha_{[100]}$: velocity and attenuation of the longitudinal ultrasound (10 MHz) propagating along the *a* axis. $u_{[100]}$: amplitude of the second harmonic longitudinal ultrasonic wave (20 MHz).

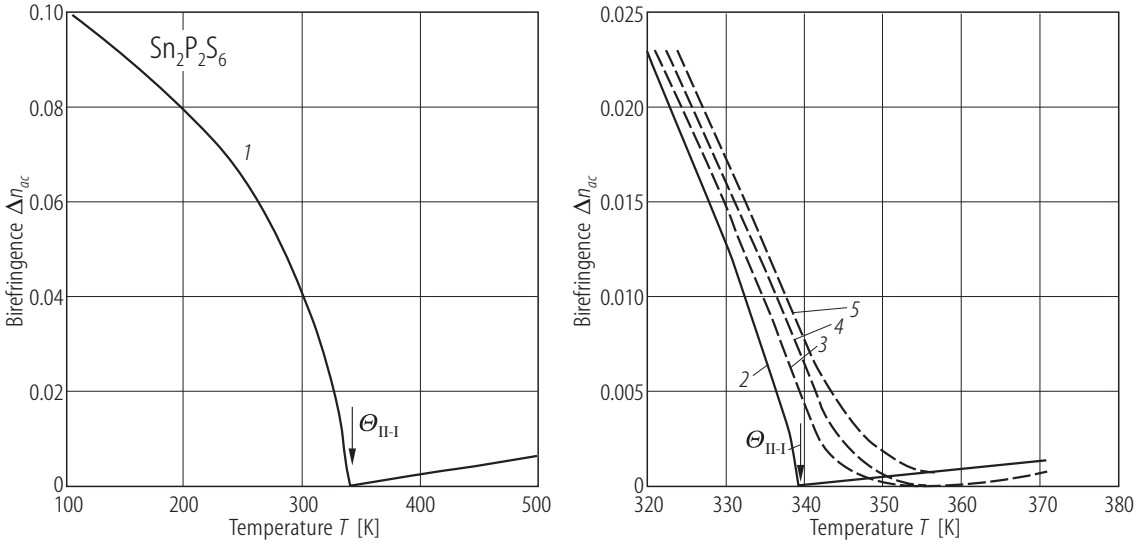

Fig. 24A-1-022. $Sn_2P_2S_6$. Δn_{ac} vs. T [88Lip]. Parameter: *E. 1*, *2*: $E = 0$ Vm^{-1}, *3*: $E = 4.2 \cdot 10^5$ Vm^{-1}, *4*: $E = 6.4 \cdot 10^5$ Vm^{-1}, 5: $E = 8.5 \cdot 10^5$ Vm^{-1}. $\lambda = 632.8$ nm.

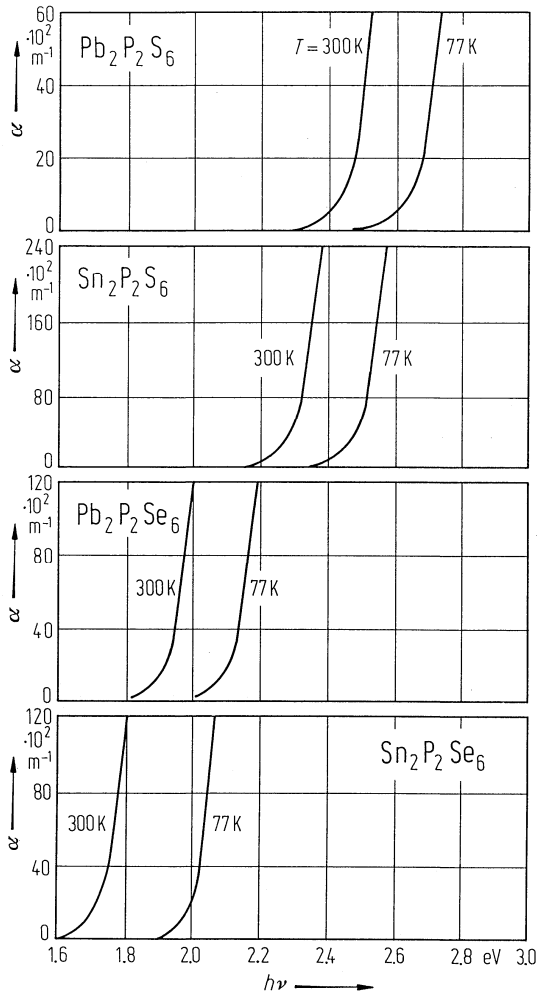

Fig. 24A-1-023. $Sn_2P_2S_6$, $Sn_2P_2Se_6$, $Pb_2P_2S_6$, $Pb_2P_2Se_6$. α vs. $h\nu$ [86Age]. Parameter: T. α: optical absorption coefficient.

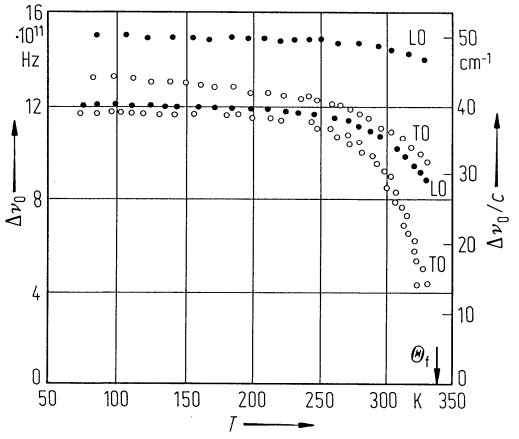

Fig. 24A-1-024. $Sn_2P_2S_6$. $\Delta\nu_0$ vs. T [81Gom]. $\Delta\nu_0$: Raman shift of the two lowest frequency modes. Open circles: TO modes; closed circles: LO modes.

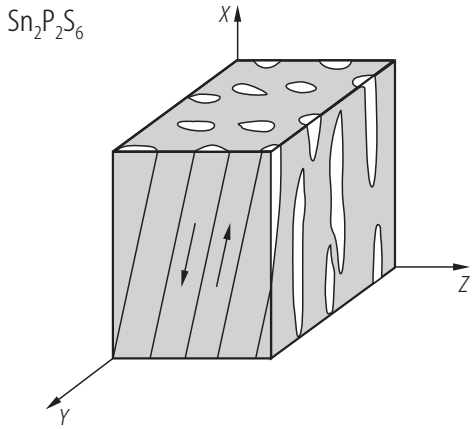

Fig. 24A-1-025. $Sn_2P_2S_6$. Schematic illustration of domain structure [92Vys]. X || [100], Y || [010], $Z \perp X$ and Y.