

No. 1C-a23 KTaO_3 – LiTaO_3

5a	Dielectric constant: Fig. 1C-a23-001. Dielectric relaxation: Figs. 1C-a23-002...1C-a23-010. Effect of electric field bias: Fig. 1C-a23-011.	
c	Spontaneous polarization: Fig. 1C-a23-012.	
6a	Specific heat: see subsection 6a of No. 1A-5.	
8a	Elastic constant: Fig. 1C-a23-013, Fig. 1C-a23-014. Elastic shear constant at low frequencies (e.g., 0.05...0.6 Hz for $(\text{K}_{0.966}\text{Li}_{0.034})\text{TaO}_3$): see	91Hoc
9a	Birefringence: Fig. 1C-a23-015.	
e	Nonlinear optic effect: see Effect of electric field on SHG intensity: see	84Gra 90Voi
13b	ESR: Fig. 1C-a23-016.	
14b	X-ray diffuse scattering: see	85And

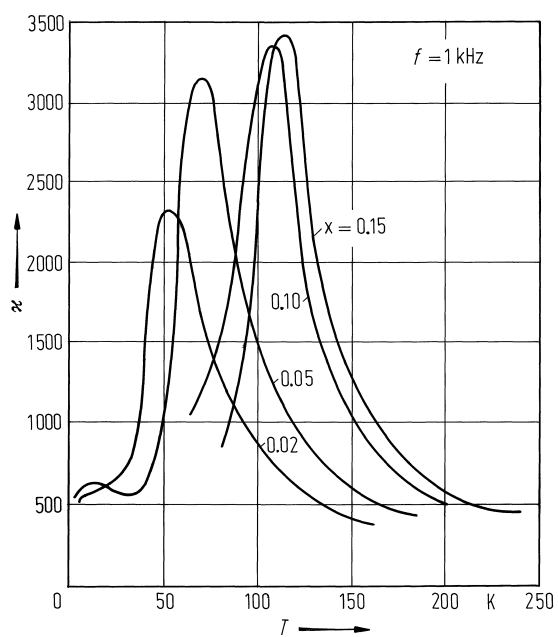


Fig. 1C-a23-001. $(K_{1-x}Li_x)TaO_3$. κ vs. T [85Smo].
Parameter: x .

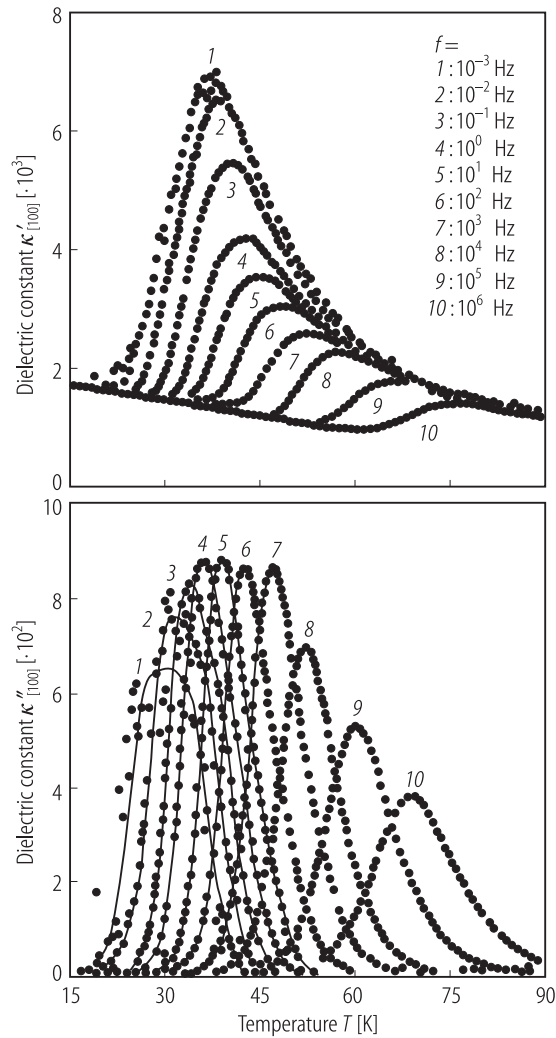


Fig. 1C-a23-002. $(\text{K}_{0.989}\text{Li}_{0.011})\text{TaO}_3$. $\kappa'_{[100]}$, $\kappa''_{[100]}$ vs. T [91Wic]. Parameter: f .

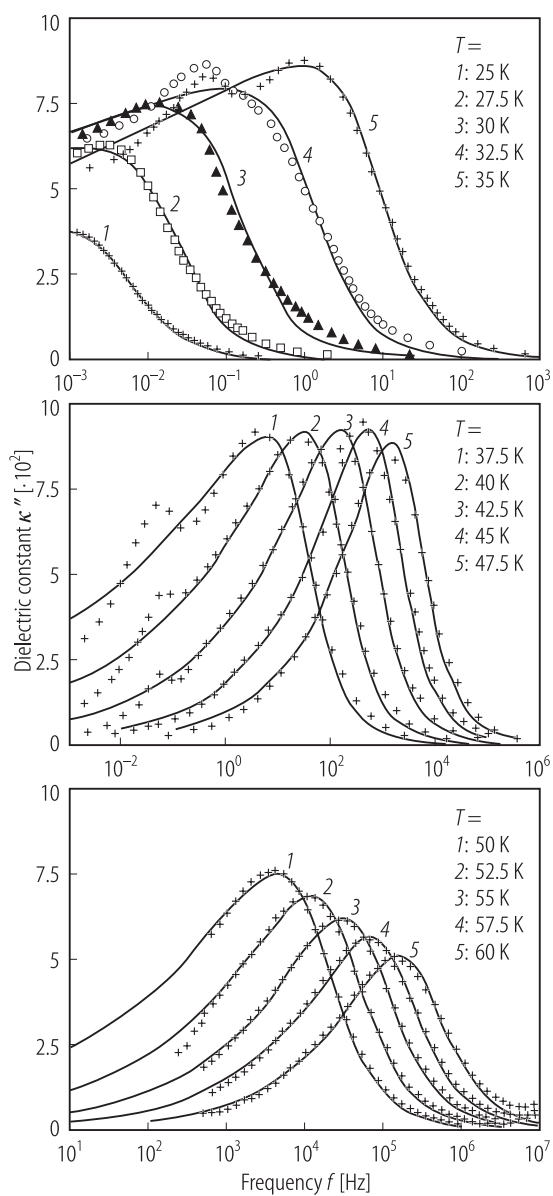


Fig. 1C-a23-003. $(K_{0.989}Li_{0.011})TaO_3$. κ'' vs. f [92Wic]. Parameter: T . Solid curves are drawn by fitting to Cole-Davidson formula $\kappa = \kappa_{\infty} + (\kappa_0 - \kappa_{\infty}) / (1 + i \omega \tau_0)^{\beta}$.

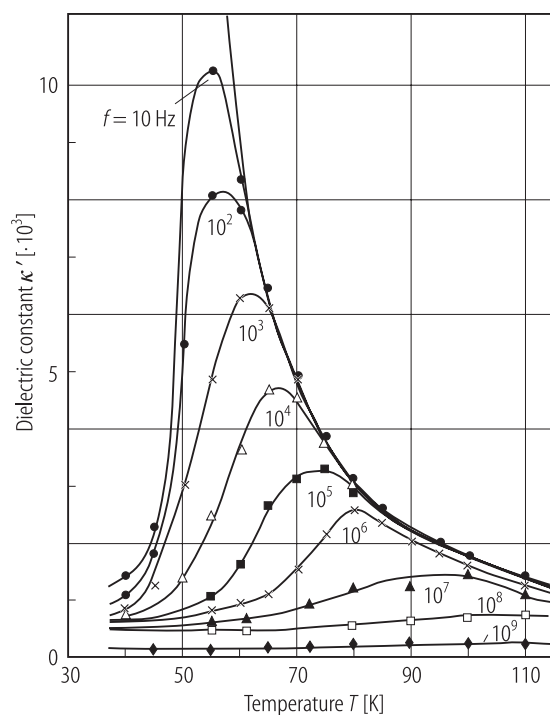


Fig. 1C-a23-004. $(\text{K}_{0.974}\text{Li}_{0.026})\text{TaO}_3$. κ' vs. T [89Hoc].
Parameter: f . Thick full curves are drawn by fitting to Curie-Weiss law with $C = 9 \cdot 10^4$ K and $\Theta_p = 50$ K.

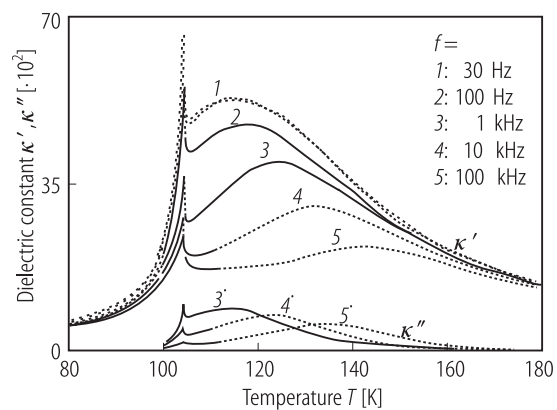


Fig. 1C-a23-005. $(\text{K}_{0.937}\text{Li}_{0.063})\text{TaO}_3$. κ' , κ'' vs. T [89Sch].
Parameter: f . Data were obtained on zero-field heating after field-cooling under $E_{\text{dc}} = 3.6 \cdot 10^5 \text{ V m}^{-1}$.

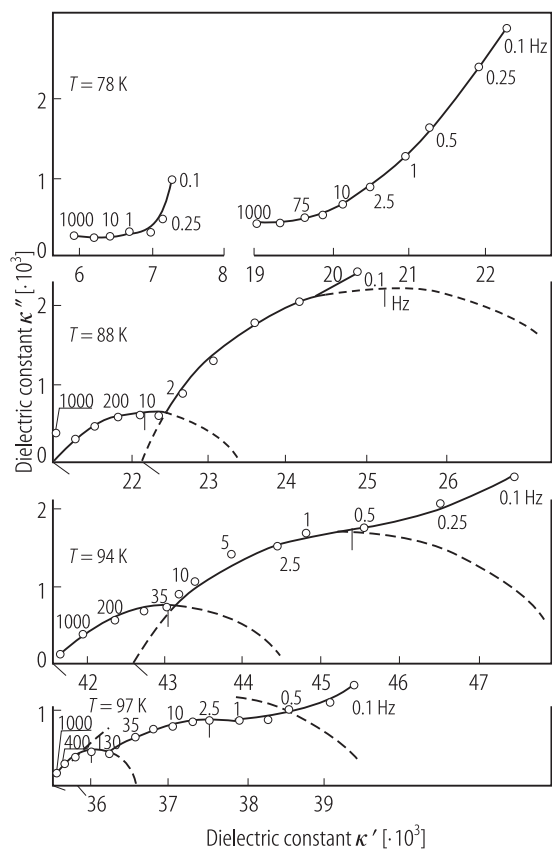


Fig. 1C-a23-006. $(\text{K}_{0.90}\text{Li}_{0.10})\text{TaO}_3$. κ'' vs. κ' [86Smo].
Parameter: T .

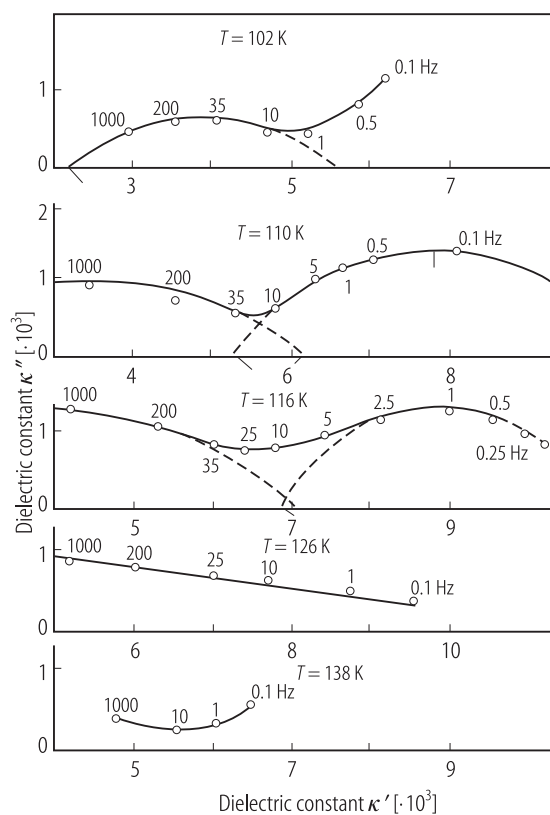


Fig. 1C-a23-007. $(K_{0.85}Li_{0.15})TaO_3$. κ'' vs. κ' [86Smo].
Parameter: T .

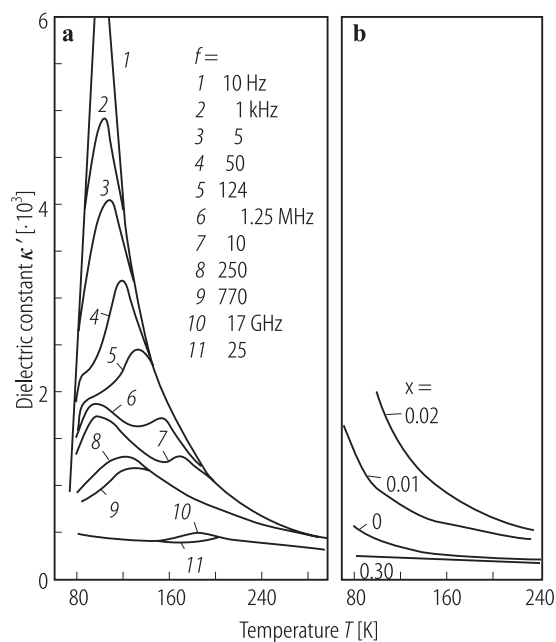


Fig. 1C-a23-008. $(K_{1-x}Li_x)TaO_3$. κ' vs. T [85Bov].
Parameter: f in (a), x in (b).

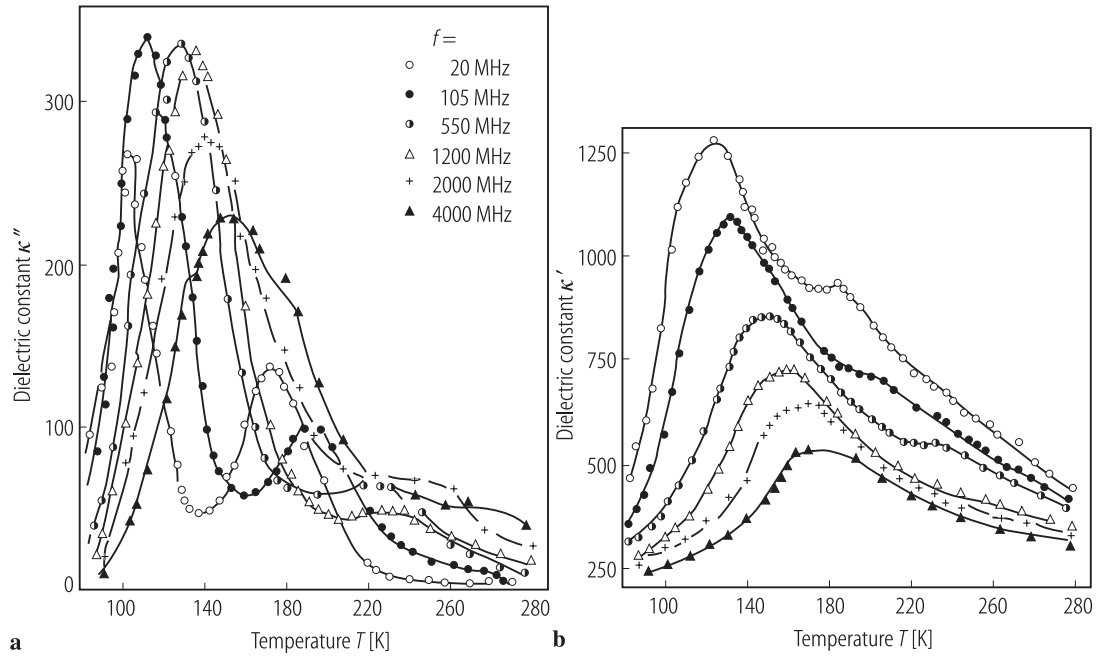


Fig. 1C-a23-009. $(K_{0.86}Li_{0.14})TaO_3$. κ' , κ'' vs. T [90Les]. Parameter: f .

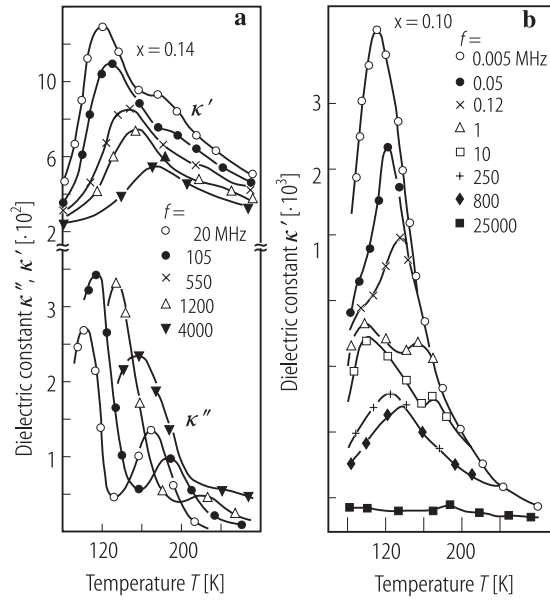


Fig. 1C-a23-010. $(K_{1-x}Li_x)TaO_3$. κ' , κ'' vs. T [92Les].
Parameter: f . (a) $x = 0.14$, (b) $x = 0.10$.

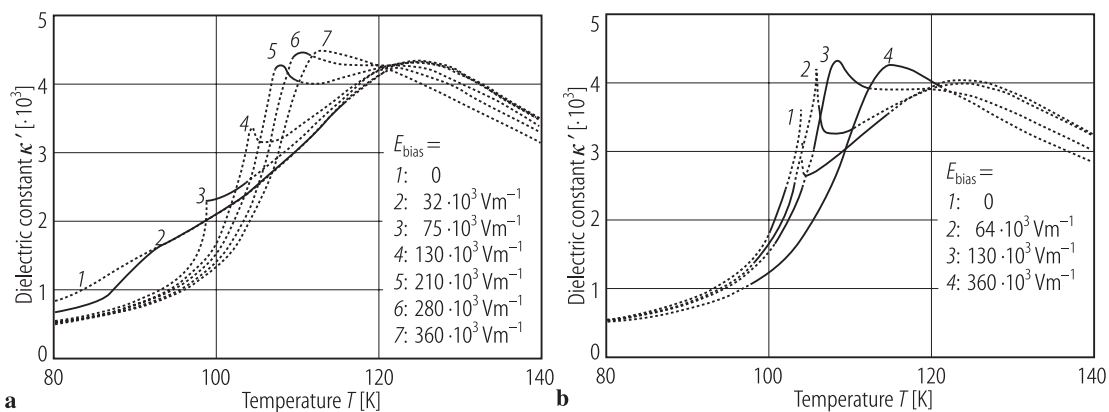


Fig. 1C-a23-011. $(\text{K}_{0.937}\text{Li}_{0.063})\text{TaO}_3$. κ' vs. T [89Sch]. Parameter: E_{bias} parallel to $[100]$. (a) on cooling, (b) on heating, under $E_{\text{dc}} = 3.6 \cdot 10^5 \text{ Vm}^{-1}$. $f = 1 \text{ kHz}$.

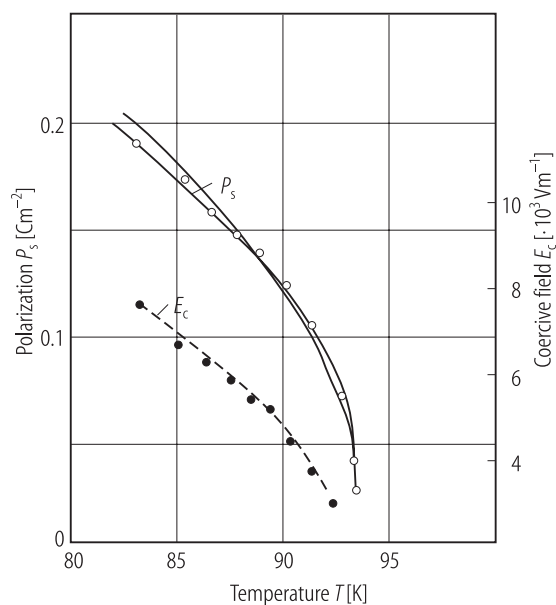


Fig. 1C-a23-012. $(\text{K}_{0.90}\text{Li}_{0.10})\text{TaO}_3$, P_s , E_c vs. T [86Smo].
 $f = 1 \text{ Hz}$.

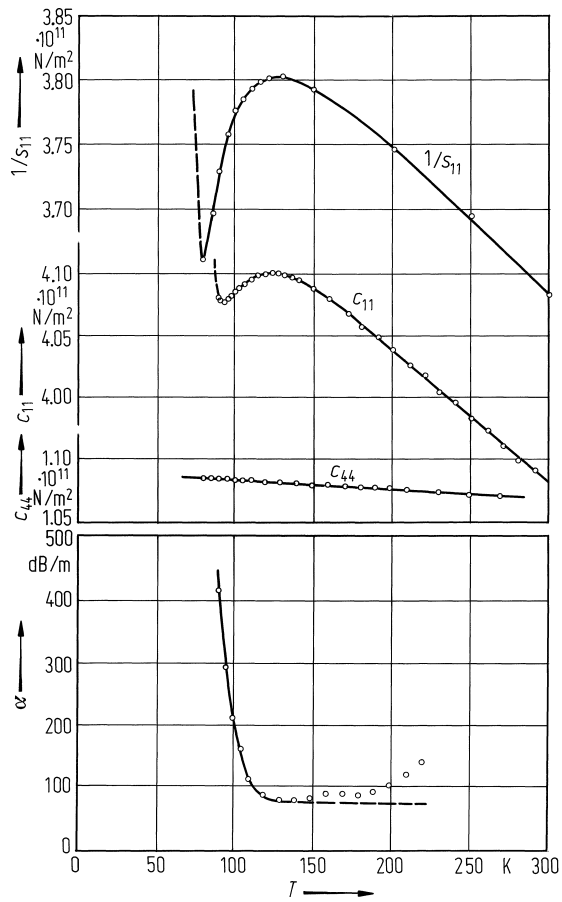


Fig. 1C-a23-013. $(\text{K}_{0.974}\text{Li}_{0.026})\text{TaO}_3$. $1/s_{11}$, c_{11} , c_{44} , α vs. T [82Hoc]. α : ultrasonic attenuation of longitudinal sound propagated along [100].

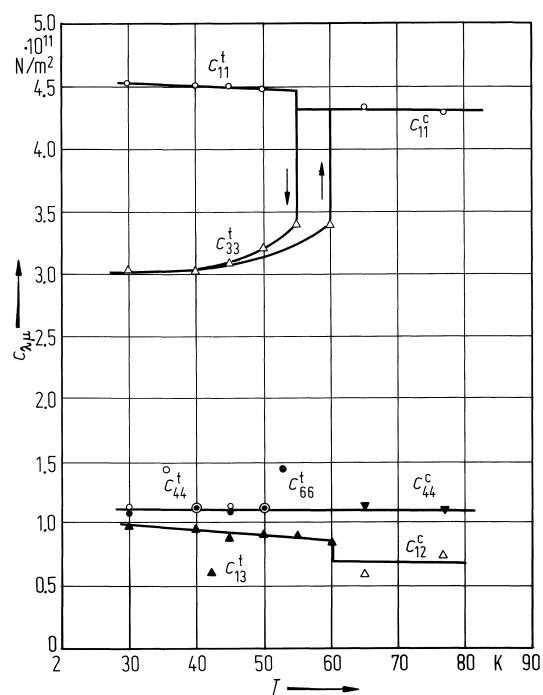


Fig. 1C-a23-014. $(\text{K}_{0.944}\text{Li}_{0.056})\text{TaO}_3$. $c_{\lambda\mu}$ vs. T [82Cha]. Brillouin scattering. Superscripts c and t refer to cubic and tetragonal phases, respectively.

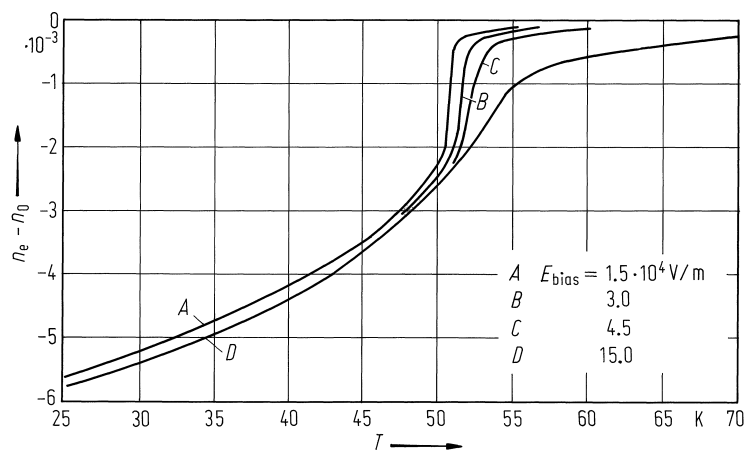


Fig. 1C-a23-015. $(K_{0.974}Li_{0.026})TaO_3$. $n_e - n_o$ vs. T [81Cou]. Parameter: E_{bias} . $\lambda = 632.8$ nm.

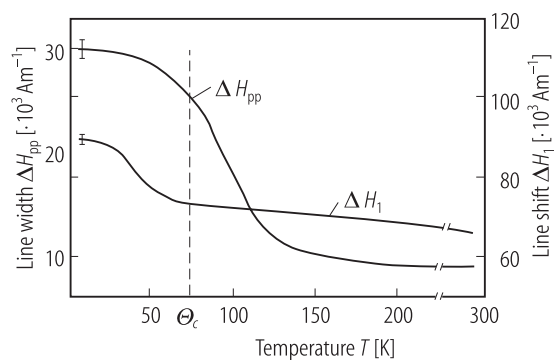


Fig. 1C-a23-016. $(\text{K}_{0.955}\text{Li}_{0.045})\text{TaO}_3$. ΔH_{pp} , ΔH_1 vs. T [89Vug]. ΔH_{pp} : line width, ΔH_1 : line shift in ESR of Fe^{3+} .

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