No. 2B-17 $LiTaO_3$–ABO_3 (A = Mg, Ca, Zn, Co, Sr; B = Ti, Zr)

1b	Ferroelectric transition temperature: Fig. 2B-17-001. See also Fig. 2B-8-001 in No. 2B-8.
3a	Unit cell parameters: Fig. 2B-17-002, Fig. 2B-17-003.
5a	Dielectric constants: Figs. 2B-17-004...2B-17-010.

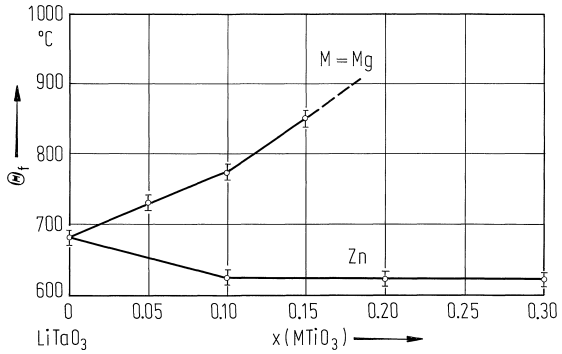

Fig. 2B-17-001. (1–x)$LiTaO_3$·x $MTiO_3$ (M = Mg, Zn). Θ_f vs. x [86Joo].

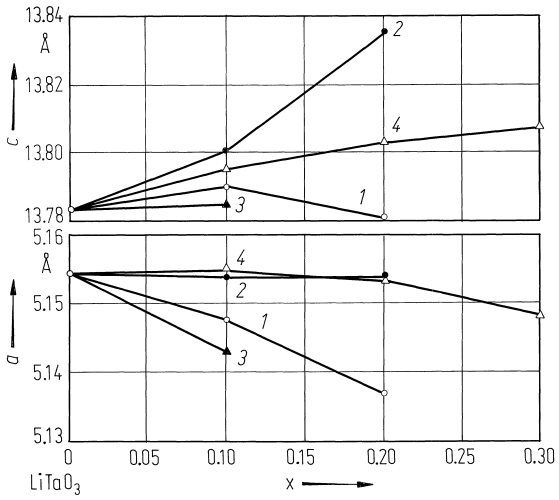

Fig. 2B-17-002. Unit cell parameters vs. x [86Joo]. Curve *1*: (1–x)$LiTaO_3$·x $MgTiO_3$, *2*: (1–x)$LiTaO_3$·(3x/5)(3MgO·TiO_2), *3*: (1–x)$LiTaO_3$·(3x/7)(MgO·3TiO_2), *4*: (1–x)$LiTaO_3$·x $ZnTiO_3$.

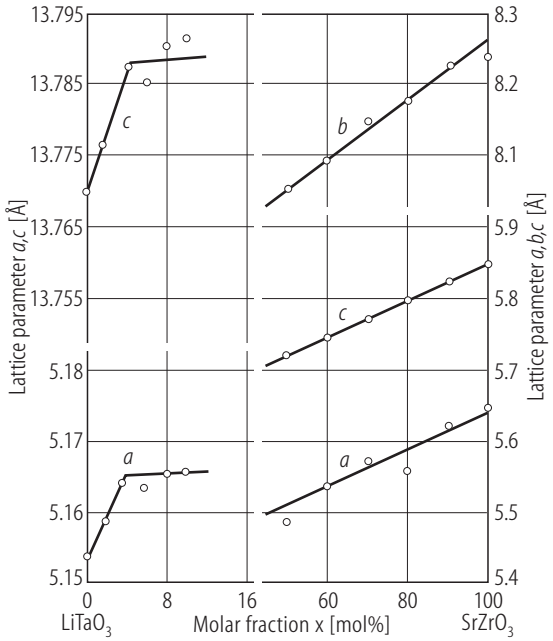

Fig. 2B-17-003. (1–x)$LiTaO_3$ · x $SrZrO_3$. *a*, *b*, *c* vs. x [91Tka].

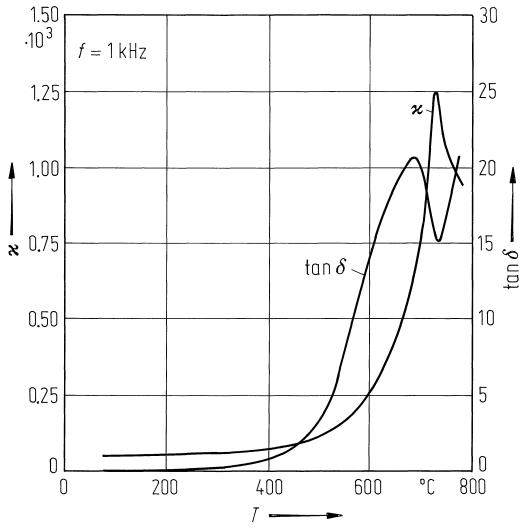

Fig. 2B-17-004. $Li_{0.95}Mg_{0.05}Ta_{0.95}Ti_{0.05}O_3$ (ceramics). κ, $\tan\delta$ vs. T [86Joo]. f = 1 kHz.

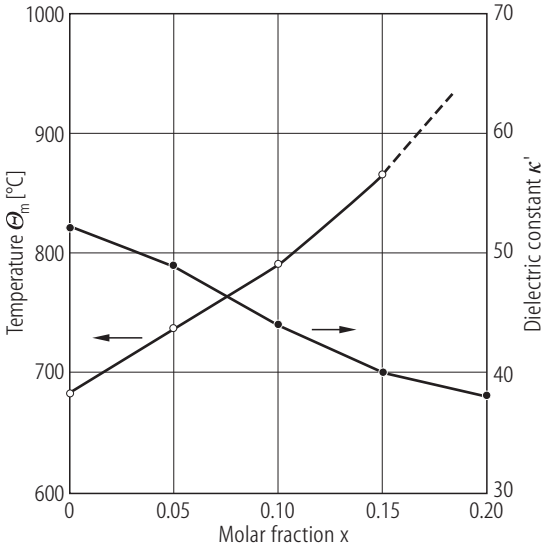

Fig. 2B-17-005. $Li_{1-x}Mg_x(Ta_{1-x}Ti_x)O_3$ (ceramics). Θ_m, κ' vs. x [88Rav]. Θ_m: temperature of the maximum dielectric constant. T = RT for κ'. f = 1 kHz.

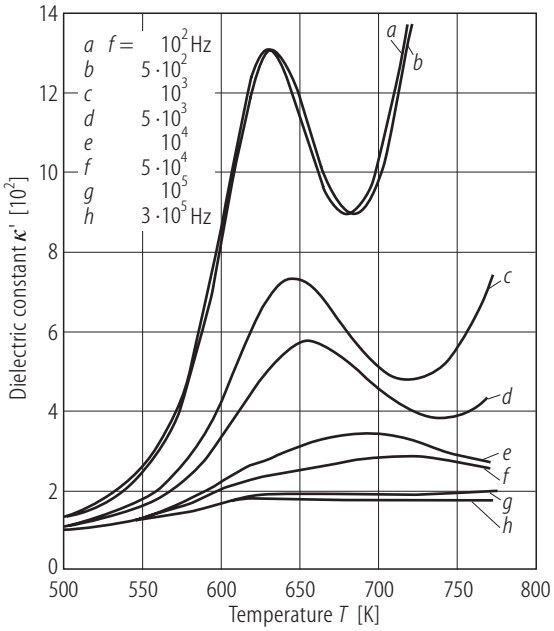

Fig. 2B-17-006. 0.85 $LiTaO_3$·0.15 $CaZrO_3$ (ceramics). κ' vs. T [92Rav]. Parameter: f.

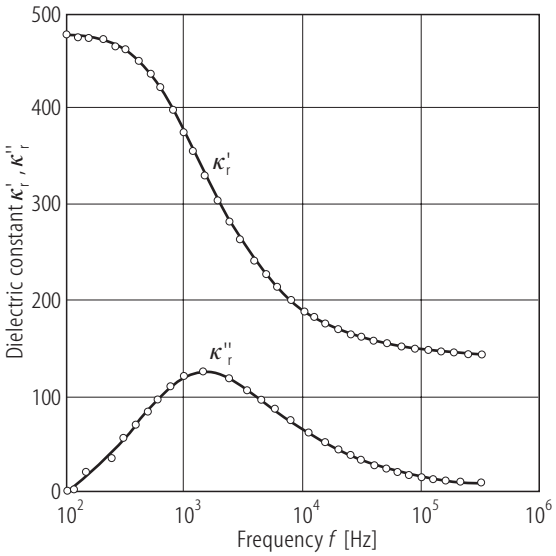

Fig. 2B-17-007. 0.85 $LiTaO_3$·0.15 $CaZrO_3$ (ceramics). κ'_r, κ''_r vs. f [92Rav]. T = 653 K. κ'_r, κ''_r : relaxational part of κ' and κ'' determined by taking away the contribution of electrical conductivity.

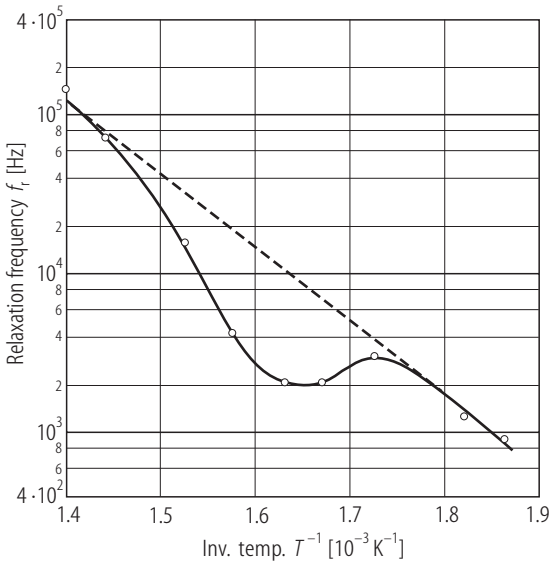

Fig. 2B-17-008. 0.85 $LiTaO_3$·0.15 $CaZrO_3$ (ceramics). f_r vs. T^{-1} [92Rav]. f_r: dielectric relaxation frequency.

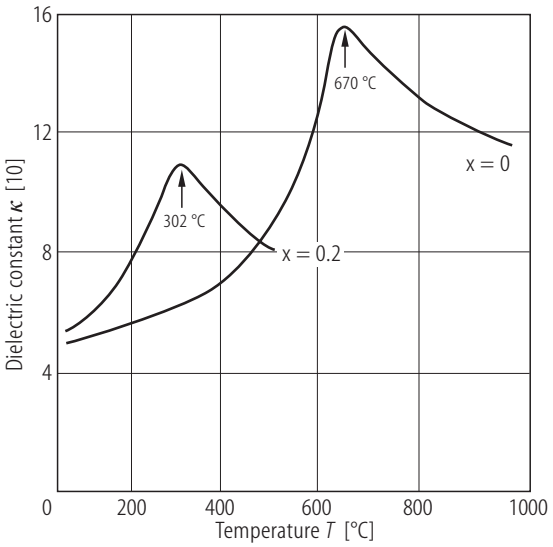

Fig. 2B-17-009. (1–x)$LiTaO_3$·x $CaZrO_3$ (ceramics). κ vs. T [78Neu]. Parameter: x.

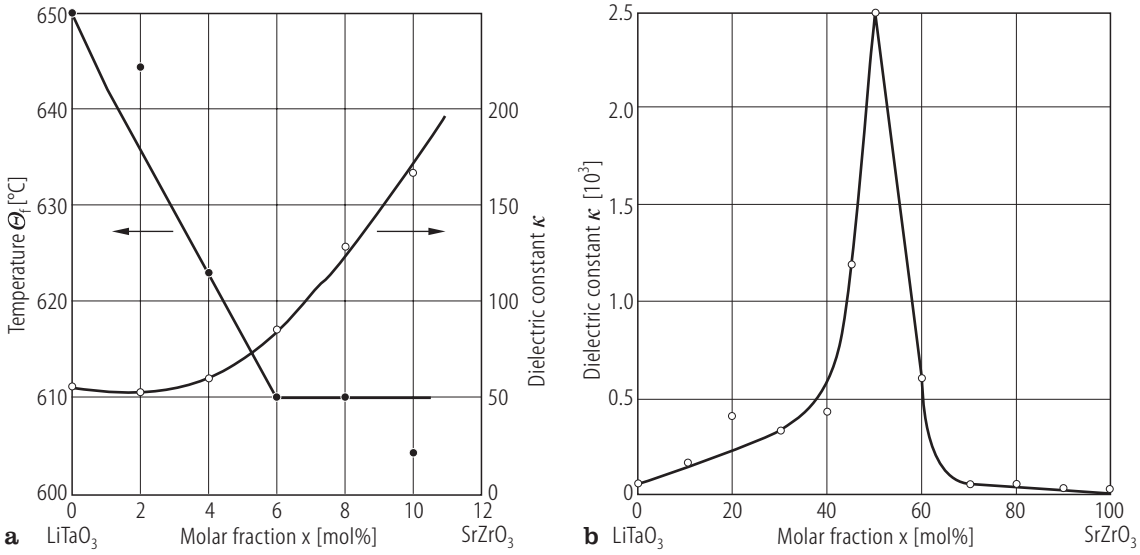

Fig. 2B-17-010. (1–x)$LiTaO_3$·x $SrZrO_3$. Θ_f, κ vs. x [91Tka].

References

78Neu Neurgaonkar, R.R., Lim, T.C., Staples, E.J.: Mater. Res. Bull. **13** (1978) 635.

86Joo Joo, G.T., Ravez, J., Hagenmuller, P.: Rev. Chim. Miner. **23** (1986) 20.

88Rav Ravez, J., Joo, G.T., Bonnet, J.P.: Ferroelectrics **81** (1988) 305.

91Tka Tkachenko, T.V., Get'man, E.I., Bamoteref, S.Kh.: Zh. Neorg. Khim. **36** (1991) 2929; Russ. J. Inorg. Chem. (English Transl.) **36** (1991) 1645.

92Rav Ravez, J., Reau, J.M., In, H.B., Maglione, M.: Ferroelectrics **127** (1992) 149.