
No. 2B-12 Li₂O–Ta₂O₅–MO (M = Mg, Ca, Ni, Cu, Zn)

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|----|---|----------------|
| 1b | Ferroelectric transition temperature: Fig. 2B-12-001.
Phase diagram: Fig. 2B-12-002.
Li ₂ O–Ta ₂ O ₅ –(CuO) ₂ ternary system: see
Li ₂ O–Ta ₂ O ₅ –MO (M = Mg, Zn) systems: see | 94Elo
87Joo |
| 3a | Unit cell parameters: Fig. 2B-12-003. | |
| 5a | Dielectric constant: Fig. 2B-12-004. | |
| 16 | Formation of ion exchanged LiTaO ₃ :Cu waveguides: see
Cu doped crystals: see | 91Bob
89Elo |
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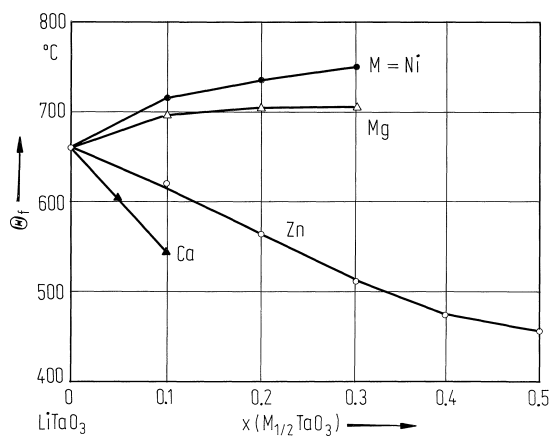


Fig. 2B-12-001. Li_{1-x}M_{x/2}TaO₃ (M = Mg, Ca, Ni, Zn). Θ_f vs. x [83Tor].

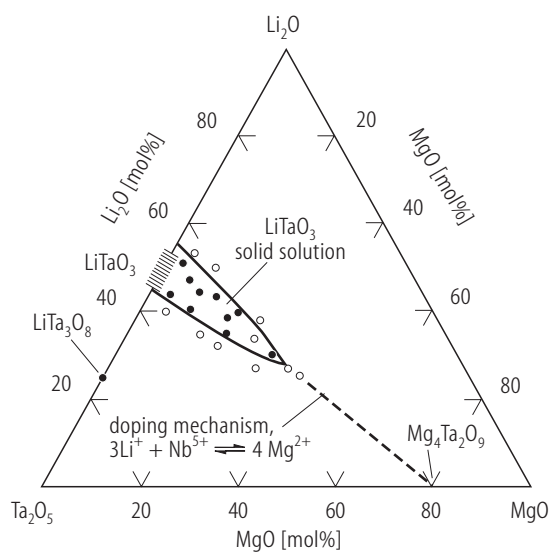


Fig. 2B-12-002. Li_2O - MgO - Ta_2O_5 . Formation of LiTaO_3 solid solutions in the composition triangle Li_2O - MgO - Ta_2O_5 [87Vil].

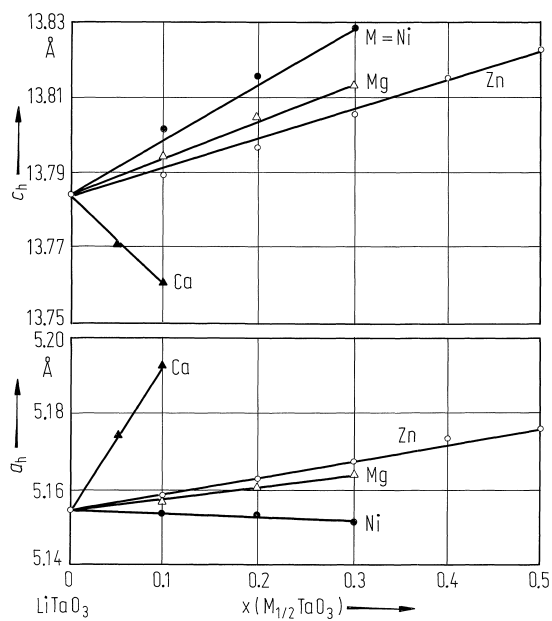


Fig. 2B-12-003. $\text{Li}_{1-x}\text{M}_{x/2}\text{TaO}_3$ ($\text{M} = \text{Mg, Ca, Ni, Zn}$). Unit cell parameters vs. x [83Tor].

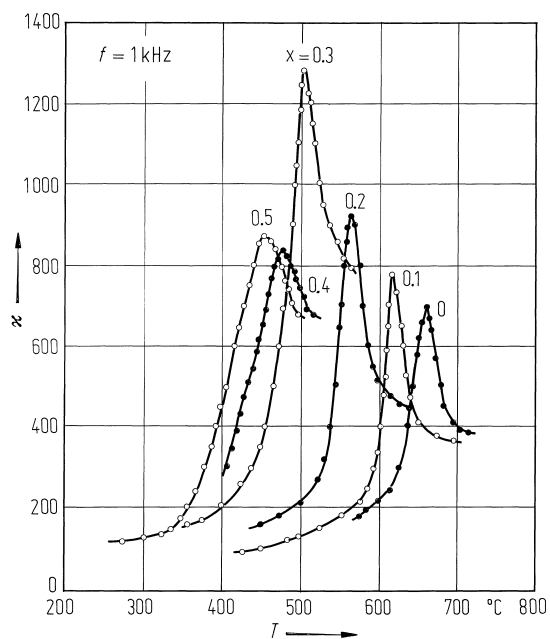


Fig. 2B-12-004. $\text{Li}_{1-x}\text{Zn}_{x/2}\text{TaO}_3$ (ceramics). κ vs. T [83Tor].
Parameter: x . $f = 1 \text{ kHz}$.

References

- 83Tor Torii, Y., Sekiya, T., Yamamoto, T., Kobayashi, K., Abe, Y.: Mater. Res. Bull. **18** (1983) 1569.
- 87Joo Joo, G.-T., Senegas, J., Ravez, S.J., Hagenmuller, P.: J. Solid State Chem. **68** (1987) 247.
- 87Vil Villafuerte, M.E., Valenzuela, R., West, A.R.: High Tech Ceramics, Part B. Proceedings of the World Congress on High Tech Ceramics, The 6th International Meeting on Modern Ceramics Technologies, Milan, June 1986, Vincenzini, P. (ed.), Materials Science Monographs, Vol. **38B**; Elsevier Science Publishers B.V., Amsterdam, 1987, p. 1611.
- 89Elo Elouadi, B., Khiat, K.: Ferroelectrics **94** (1989) 317.
- 91Bob Bobrov, Yu.A., Ganshin, V.A., Ivanov, V.Sh., Korkishko, Yu.N., Morozova, T.V.: Phys. Status Solidi (a) **123** (1991) 317.
- 94Elo Elouadi, B., Khiat, K.: Ferroelectrics **158** (1994) 25.