

68B Solid solutions**No. 68B-1 $\text{LiNH}_4\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ – $\text{LiTlC}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT–LTT)**

2	Single crystals were grown by a slow evaporation method from aqueous solution of mixture of $\text{LiNH}_4\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ and $\text{LiTlC}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ at RT. The relation between the composition of the grown crystal and the molar ratio of LAT/LTT in the solution: see	82Kam 82Kam
5a	Dielectric constant: Fig. 68B-1-001, Fig. 68B-1-002. Low frequency [10^{-3} Hz] D – E hysteresis loops along the a axis at liquid helium temperature for $\text{Li}(\text{NH}_4)_{0.5}\text{Tl}_{0.5}\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$: see	82Kam
8a	Elastic compliances of several solid solutions for 45° Y -cut specimens: see	82Kam
13b	ESR study: g and A tensors for Tl^{2+} centers in $\text{Li}(\text{NH}_4)_{0.5}\text{Tl}_{0.5}\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$: see Table 68A-2-003 in No. 68A-2.	

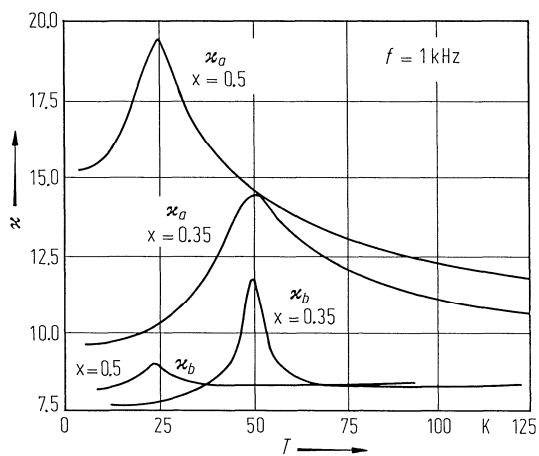


Fig. 68B-1-001. $\text{Li}(\text{NH}_4)_{1-x}\text{Ti}_x\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT-LTT). κ_a , κ_b vs. T [82Kam]. $x = 0.35, 0.5$.

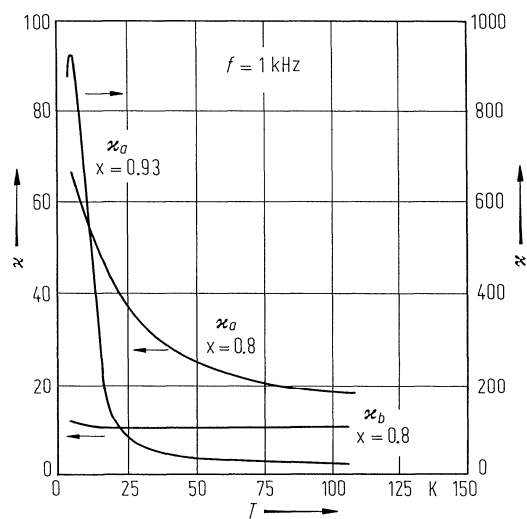


Fig. 68B-1-002. $\text{Li}(\text{NH}_4)_{1-x}\text{Ti}_x\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT-LTT). κ_a , κ_b vs. T [82Kam]. $x = 0.8, 0.93$.

Reference

82Kam Kamijo, Y., Abe, R.: J. Phys. Soc. Jpn. **51** (1982) 2910.

No. 68B-2 $\text{LiNH}_4\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ – $\text{LiRbC}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT–LRT)

5a Dielectric constant: Fig. 68B-2-001.

8a Elastic compliance for 45° *Y*-cut crystals, $(s_{11}^E + s_{33}^E + s_{13}^E + s_{55}^E)/4$ vs. T : see

81Abe

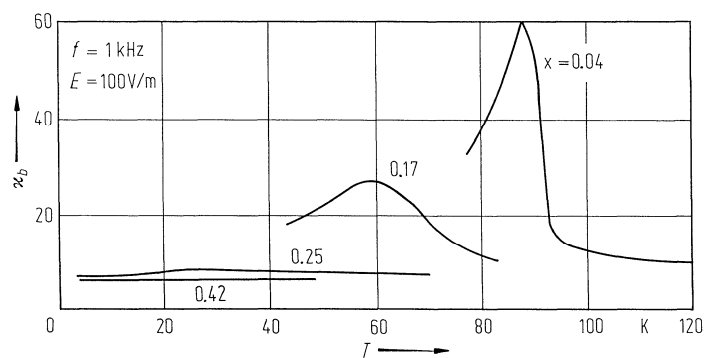


Fig. 68B-2-001. $\text{Li}(\text{NH}_4)_{1-x}\text{Rb}_x\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT–LRT). κ_b vs. T [81Abe]. Parameter: x .

Reference

81Abe Abe, R., Kanada, S., Suehiro, T.: *Ferroelectrics* **39** (1981) 1123.

No. 68B-3 $\text{LiNH}_4\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ – $\text{LiCsC}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT–LCT)

5a Dielectric constant for $\text{Li}(\text{NH}_4)_{1-x}\text{Cs}_x\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$: Fig. 68B-3-001.

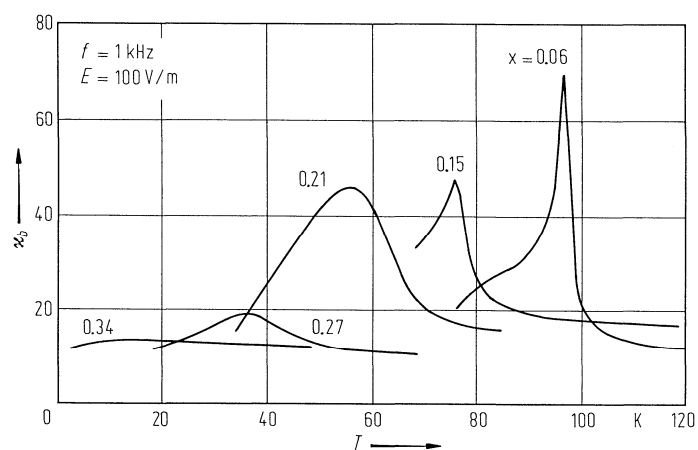


Fig. 68B-3-001. $\text{Li}(\text{NH}_4)_{1-x}\text{Cs}_x\text{C}_4\text{H}_4\text{O}_6 \cdot \text{H}_2\text{O}$ (LAT-LCT). κ_b vs. T [81Abe]. Parameter: x .

Reference

81Abe Abe, R., Kanada, S., Suehiro, T.: *Ferroelectrics* **39** (1981) 1123.