

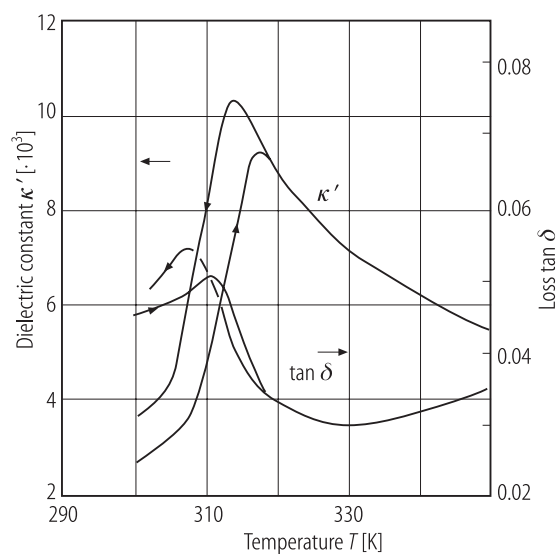
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**No. 1C-b90  $\text{Pb}(\text{Sc}_{1/2}\text{Nb}_{1/2})\text{O}_3$ – $\text{Pb}(\text{Sc}_{1/2}\text{Ta}_{1/2})\text{O}_3$** 

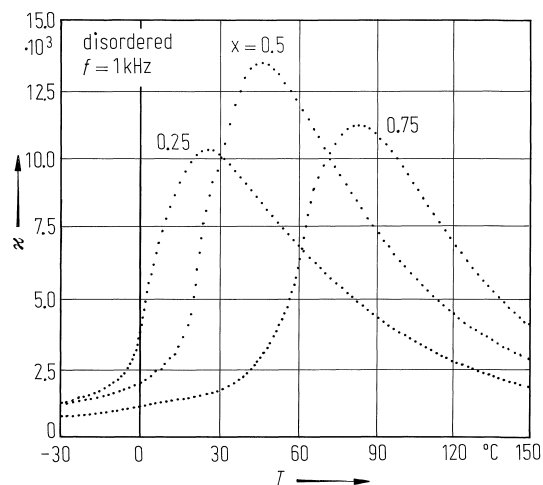
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2a	Crystal growth from $\text{PbF}_2$ – $\text{PbO}$ – $\text{B}_2\text{O}_3$ flux: see	94Wol
5a	Dielectric constant: Figs. 1C-b90-001...1C-b90-003.	
c	Spontaneous polarization: Fig. 1C-b90-004.	

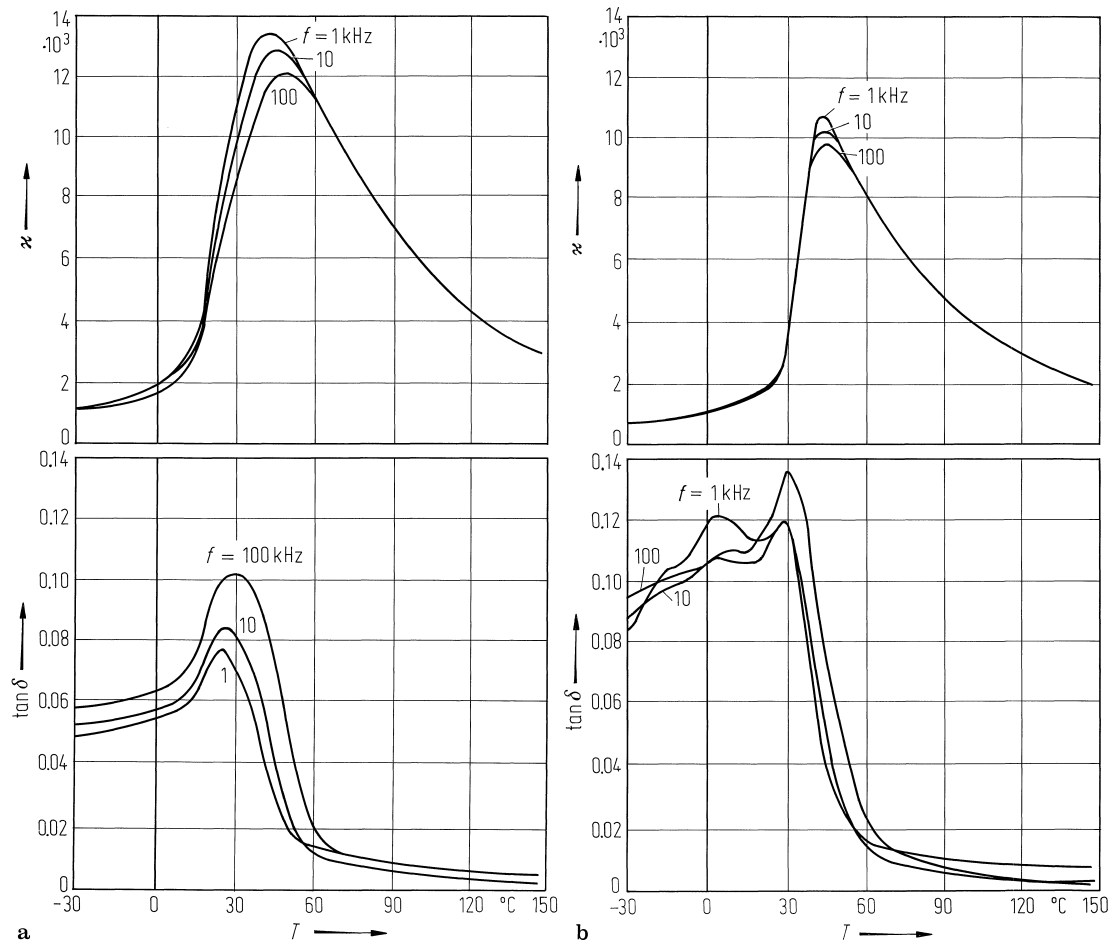
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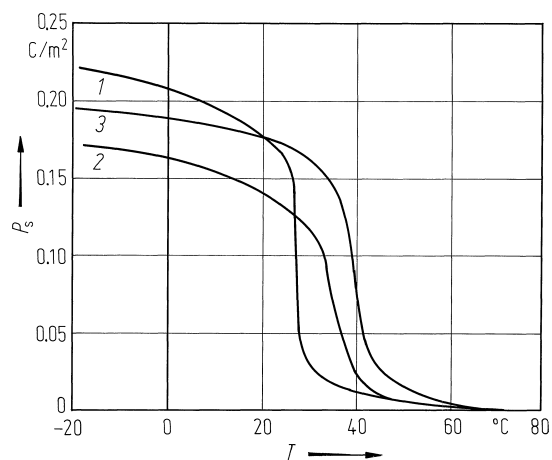
**Fig. 1C-b90-001.**  $0.4 \text{ Pb}(\text{Sc}_{1/2}\text{Nb}_{1/2})\text{O}_3 \cdot 0.6 \text{ Pb}(\text{Sc}_{1/2}\text{Ta}_{1/2})\text{O}_3$ .  $\kappa'$ ,  $\tan \delta$  vs.  $T$  [94Wol].  $f = 6.3 \text{ kHz}$ . The crystal was annealed at 1170 K for 10 h.



**Fig. 1C-b90-002.**  $(1-x)\text{Pb}(\text{Sc}_{1/2}\text{Ta}_{1/2})\text{O}_3 \cdot x \text{Pb}(\text{Sc}_{1/2}\text{Nb}_{1/2})\text{O}_3$  (ceramics).  $\kappa$  vs.  $T$  [81Che]. Parameter:  $x$ .  $f = 1 \text{ kHz}$ . Disordered specimen.



**Fig. 1C-b90-003.** 0.5  $\text{Pb}(\text{Sc}_{1/2}\text{Nb}_{1/2})\text{O}_3$ -0.5  $\text{Pb}(\text{Sc}_{1/2}\text{Ta}_{1/2})\text{O}_3$  (ceramics).  $\kappa$ ,  $\tan \delta$  vs.  $T$  [81Che]. Parameter:  $f$ . Annealing condition: (a) 1480 °C, 20 min, (b) 1000 °C, 24 h.



**Fig. 1C-b90-004.**  $0.5 \text{ Pb}(\text{Sc}_{1/2}\text{Nb}_{1/2})\text{O}_3 \cdot 0.5 \text{ Pb}(\text{Sc}_{1/2}\text{Ta}_{1/2})\text{O}_3$  (ceramics).  $P_s$  vs.  $T$  [81Che]. Annealing condition: 1: 1480  $^\circ\text{C}$ , 20 min, 2: 1000  $^\circ\text{C}$ , 24 h, 3: 950  $^\circ\text{C}$ , 30 h.

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**References**

- 81Che    Chen, Z.I., Setter, N., Cross, L.E.: *Ferroelectrics* **37** (1981) 619.  
94Wol    Wolak, J., Hilczer, B., Caranoni, C., Lampin, P., Boulesteix, C.: *Ferroelectrics* **158** (1994) 399.