
No. 1C-a86 PbZrO₃–PbNb₂O₆

1b Phase diagram: Fig. 1C-a86-001.

The composition is represented by $(1-x)\text{PbZrO}_3 \cdot x\text{PbNb}_2\text{O}_6$ in the figure; however, another formula $(1-x')\text{PbZrO}_3 \cdot x'\text{Pb}_{1/2}\text{NbO}_3$ is considered to be more relevant, where $x' = 2x/(1+x)$.

4 Thermal expansion: Fig. 1C-a86-002.

5a Dielectric constant: Fig. 1C-a86-003.

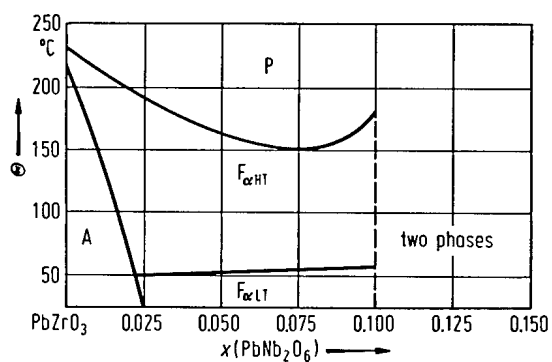


Fig. 1C-a86-001. $(1-x)\text{PbZrO}_3 \cdot x \text{PbNb}_2\text{O}_6$. Θ vs. x [62Dun]. Phases: $F_{\alpha\text{LT}}$, $F_{\alpha\text{HT}}$: ferroelectric rhombohedral, A: antiferroelectric, P: paraelectric cubic. See also [58Kra].

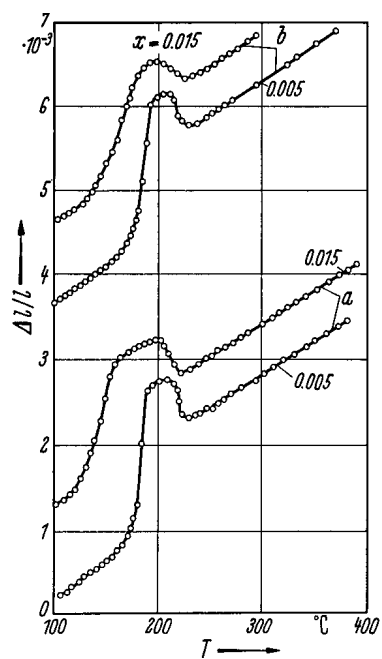


Fig. 1C-a86-002. $(1-x)\text{PbZrO}_3 \cdot x \text{PbNb}_2\text{O}_6$ (curves *a*) and $(1-x)\text{PbZrO}_3 \cdot x \text{PbTa}_2\text{O}_6$ (curves *b*). $\Delta l/l$ vs. T [58Kra]. Parameter: x .

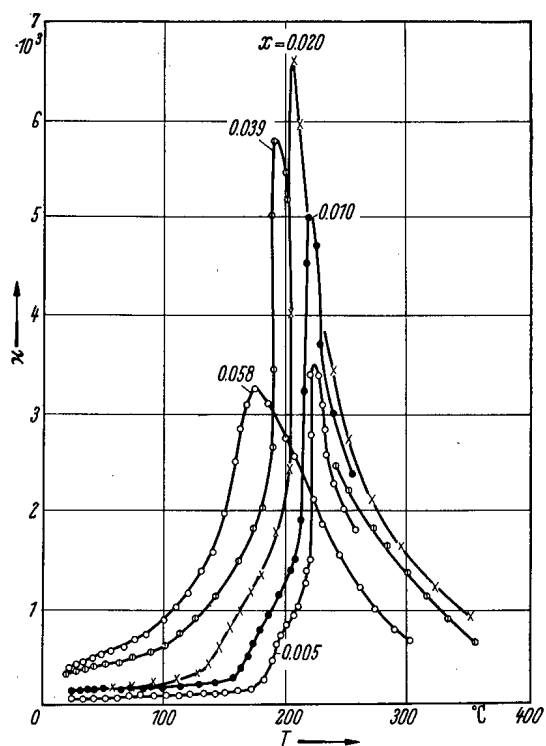


Fig. 1C-a86-003. $(1-x)\text{PbZrO}_3 \cdot x\text{PbNb}_2\text{O}_6$ (ceramics). κ vs. T [58Kra]. Parameter: x , $f = 1$ kHz.

References

- 58Kra Krainik, N.N.: Zh. Tekh. Fiz. **28** (1958) 525; Sov. Phys. Tech. Phys. (English Transl.) **3** (1958) 493.
62Dun Dungan, R.H., Barnett, H.M., Stark, A.H.: J. Am. Ceram. Soc. **45** (1962) 382.