

No. 1B-c24 $\text{Pb}(\text{Lu}_{1/2}\text{Ta}_{1/2})\text{O}_3$
 ($M = 433.3$)

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|----|---|------------|-------|
| 1a | Dielectric anomaly in $\text{Pb}(\text{Lu}_{1/2}\text{Ta}_{1/2})\text{O}_3$ was found by Smolenskii and Agranovskaya in 1958. | | 58Smo |
| b | phase | II | I |
| | state | (A) | P |
| | crystal system | monoclinic | cubic |
| | Θ [°C] | 280 | |
| 3a | $a = c = 4.153 \text{ \AA}$, $b = 4.107 \text{ \AA}$, $\beta = 90^\circ 30'$ at RT. | | 65Kup |
| 4 | Lattice distortion: Fig. 1B-c24-001. Thermal expansion: Fig. 1B-c24-002. | | |
| 5a | Dielectric constant: Fig. 1B-c24-003. | | |

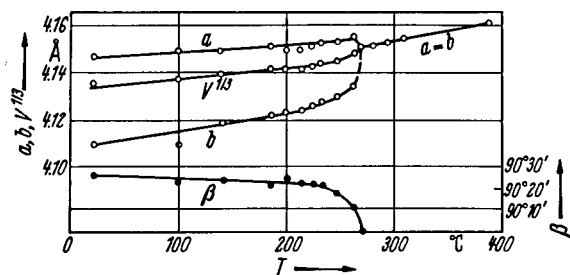


Fig. 1B-c24-001. $\text{Pb}(\text{Lu}_{1/2}\text{Ta}_{1/2})\text{O}_3$, a , b , β and $V^{1/3}$ vs. T [65Kup].

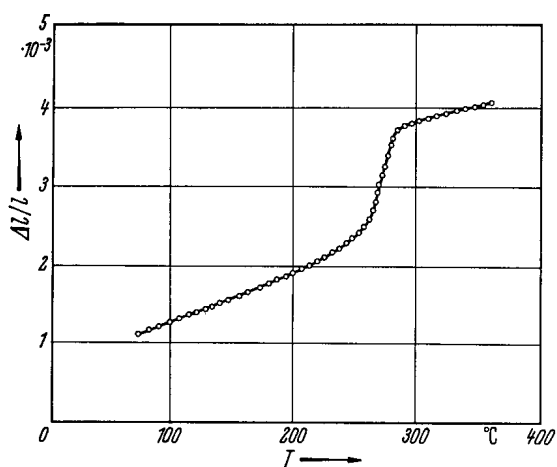


Fig. 1B-c24-002. $\text{Pb}(\text{Lu}_{1/2}\text{Ta}_{1/2})\text{O}_3$ (ceramics). $\Delta l/l$ vs. T [64Isu].

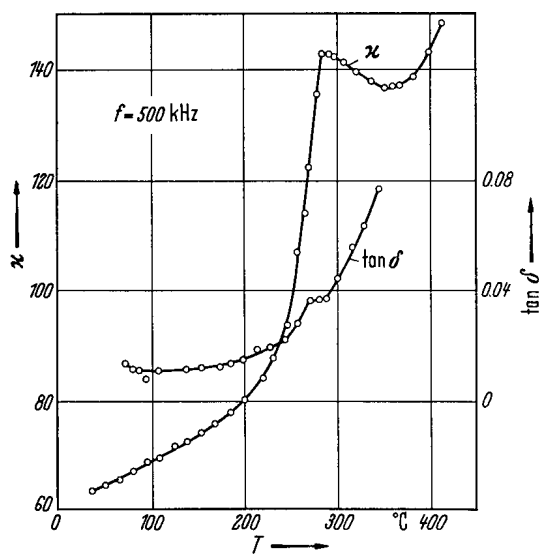


Fig. 1B-c24-003. $\text{Pb}(\text{Lu}_{1/2}\text{Ta}_{1/2})\text{O}_3$ (ceramics). κ , $\tan \delta$ vs. T [65Kup]. $f = 500 \text{ kHz}$.

References

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- 64Isu Isupov, V.A., Krainik, N.N.: Fiz. Tverd. Tela **6** (1964) 3713; Sov. Phys. Solid State (English Transl.) **6** (1965) 2975.
- 65Kup Kupriyanov, M.F., Fesenko, E.G.: Izv. Akad. Nauk SSSR, Ser. Fiz. **29** (1965) 925; Bull. Acad. Sci. USSR, Phys. Ser. (English Transl.) **29** (1965) 930.