

No. 1B-a2 ($\text{K}_{1/2}\text{Bi}_{1/2}\text{TiO}_3$, Potassium bismuth titanate
 ($M = 219.94$)

1a	Ferroelectricity in $(\text{K}_{1/2}\text{Bi}_{1/2})\text{TiO}_3$ was found by Smolenskii and Agranovskaya in 1959.			59Smo
b	phase	III	II	I
	state	F	(F)	P
	crystal system	tetragonal	pseudocubic	cubic
	space group			$\text{Pm}3\text{m}-\text{O}_h^1$
	Θ [K]	550 ^{a)} (540 ^{b)})	650 ^{a)} 700 ^{b)})	^{a)} 83Eme ^{b)} 85Bon
3	Crystal structure: disordered perovskite. $a = 3.913(3) \text{ \AA}$, $c = 3.993(3) \text{ \AA}$ at RT.			62Iva
4	Lattice distortion: Fig. 1B-a2-001. Thermal expansion: Fig. 1B-a2-002.			
5	Dielectric constant: Fig. 1B-a2-003.			

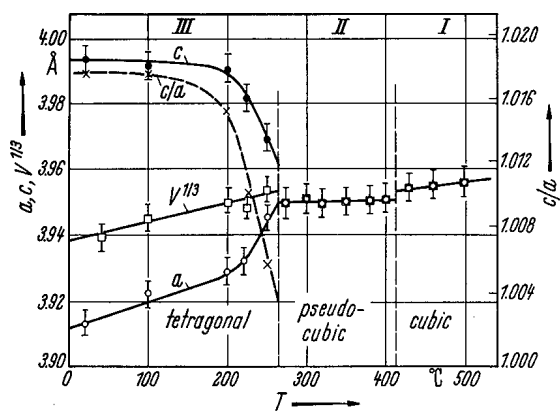


Fig. 1B-a2-001. $(K_{1/2}Bi_{1/2})TiO_3$. Lattice parameters a , c , c/a , $V^{1/3}$ vs. T [62Iva].

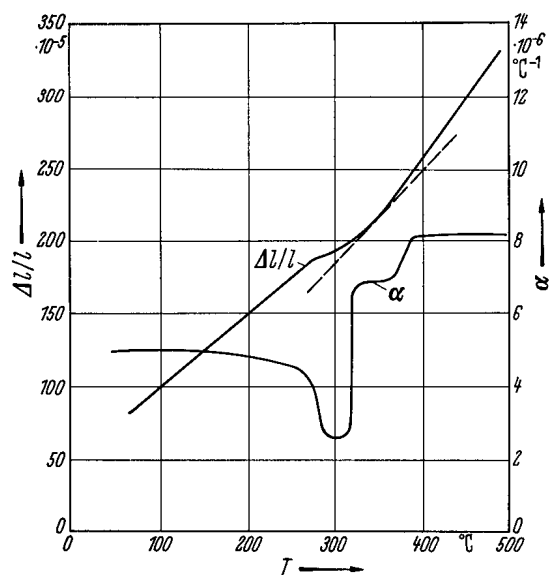


Fig. 1B-a2-002. $(\text{K}_{1/2}\text{Bi}_{1/2})\text{TiO}_3$. $\Delta l/l$ and α vs. T [60Smo].
 α : linear thermal expansion coefficient.

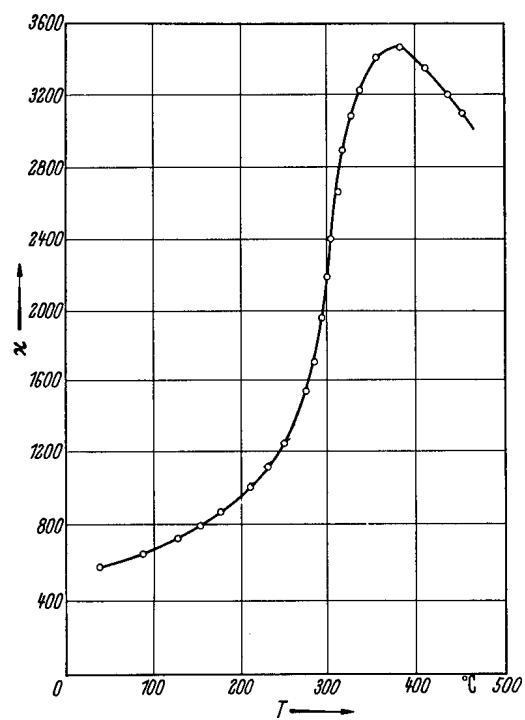


Fig. 1B-a2-003. $(K_{1/2}Bi_{1/2})TiO_3$ (ceramics). κ vs. T [60Smo]. $f = 500$ kHz.

References

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