No. 1C-a28 $SrTiO_3$–$BaTiO_3$

1b	Phase diagram: Fig. 1C-a28-001, Fig. 1C-a28-002; see also	65Heg
2b	Phase diagram: see Distribution curve (x_{sol} vs. x_{liq}): Fig. 1C-a28-003.	57Bas
3a	Lattice parameters: Fig. 1C-a28-004, Fig. 1C-a28-005; see also	46Rus
5a	Dielectric constant: Figs. 1C-a28-006...1C-a28-010. Dielectric relaxation: Fig. 1C-a28-011. Pressure effect: Figs. 1C-a28-012...1C-a28-014. Effect of electric field: Fig. 1C-a28-015.	
c	Polarization: Fig. 1C-a28-016.	
d	Pyroelectricity: Fig. 1C-a28-017.	
6a	Specific heat: Fig. 1C-a28-018.	
8a	Ultrasonic velocity: Fig. 1C-a28-019, Fig. 1C-a28-020.	
11	Piezoresistivity: Fig. 1C-a28-021; see also Mobility: Table 1C-a28-001.	59Sau
14a	Neutron scattering intensity: Fig. 1C-a28-022.	
15a	Observation of domains: see	94Aly
16	Thin films: see	69Men, 81Muk, 81Lip, 82Ili, 84Orl, 84Ven, 93Car, 93Kaw, 93Meh

Table 1C-a28-001. (Sr, Ba)TiO_3. Mobility [72Ger]. μ_{det}: gravimetrically determined mobility, μ_H: Hall mobility.

Composition	μ_{det}	μ_H
	[$\cdot 10^{-4}$ m^2V^{-1} s^{-1}]	
Single crystal:		
$SrTiO_3$	5.9	5.8
Ceramics:		
$SrTiO_3$	7.0	5.8
$(Sr_{0.8}Ba_{0.2})TiO_3$	6.5	4.0
$(Sr_{0.6}Ba_{0.4})TiO_3$	4.0	2.6
$(Sr_{0.4}Ba_{0.6})TiO_3$	2.6	1.5
$(Sr_{0.2}Ba_{0.8})TiO_3$	1.4	0.9
$BaTiO_3$	0.6	0.5

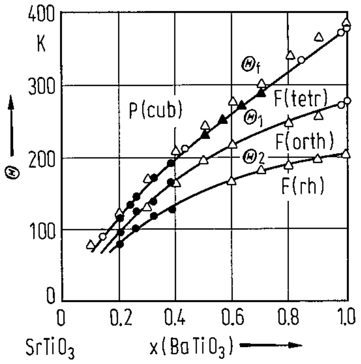

Fig. 1C-a28-001. $(Sr_{1-x}Ba_x)TiO_3$. Θ_f, Θ_1, Θ_2 vs. x. Single crystals: full circles: [78Ben], open circles: [71Bet]. Ceramics: full triangles: [71Bet], open triangles: [54Smo].

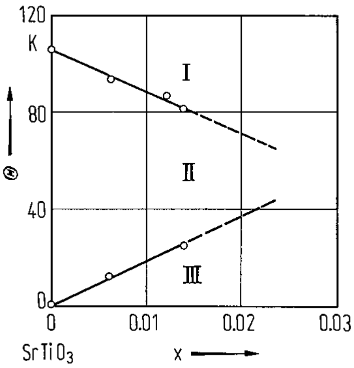

Fig. 1C-a28-002. $(Sr_{1-x}Ba_x)TiO_3$. Θ vs. x [75Miu].

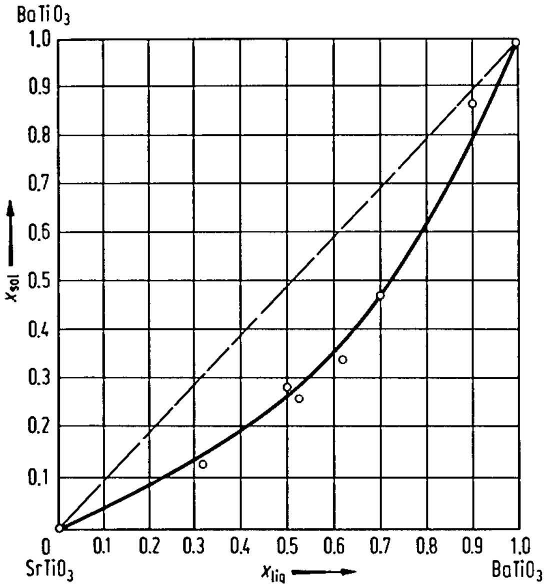

Fig. 1C-a28-003. $(Sr_{1-x}Ba_x)TiO_3$. Distribution curve (x_{sol} vs. x_{liq}) [71Bet]. x_{sol}: composition in solid (crystal), x_{liq}: composition in liquid (melt). Crystals were pulled from the melts with 28 mol% TiO_2 excess.

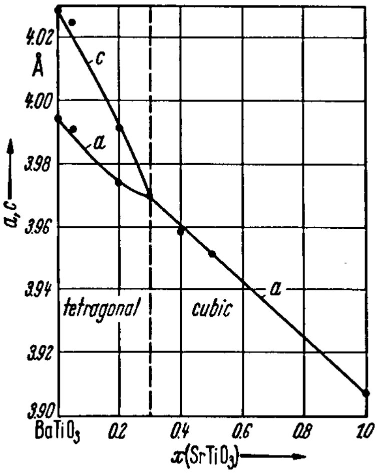

Fig. 1C-a28-004. $(Ba_{1-x}Sr_x)TiO_3$. *a*, *c* vs. x [55McQ].

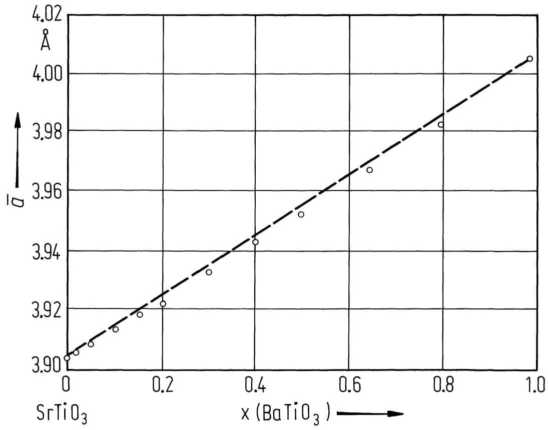

Fig. 1C-a28-005. $(Sr_{1-x}Ba_x)TiO_3$. $\bar{a}$ vs. x [81She]. $\bar{a} = \sqrt[3]{a^2c}$ at 20 °C. Broken curve: linear dependence according to Vegard's law.

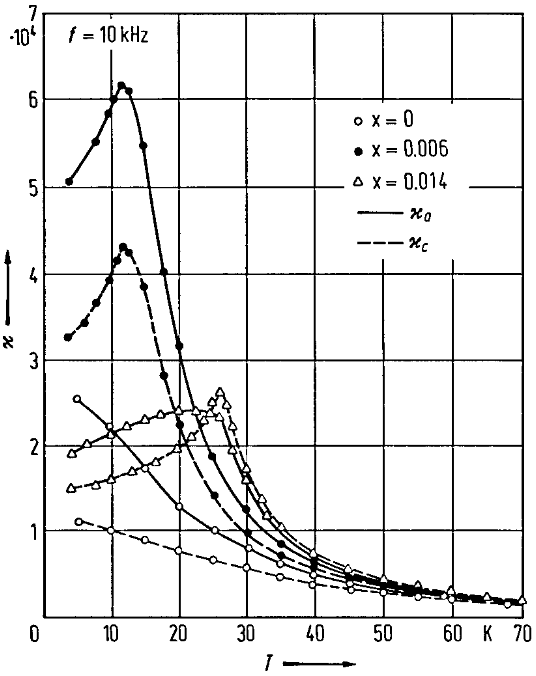

Fig. 1C-a28-006. $(Sr_{1-x}Ba_x)TiO_3$. κ_a, κ_c vs. T [75Miu]. Parameter: x.

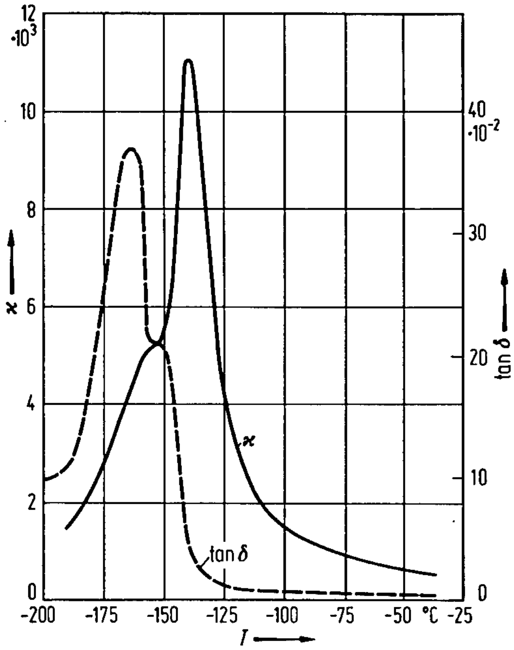

Fig. 1C-a28-007. $(Sr_{0.7}Ba_{0.3})TiO_3$. $\kappa_{[100]}$, tan δ vs. T [71Bet].
f = 1.6 kHz.

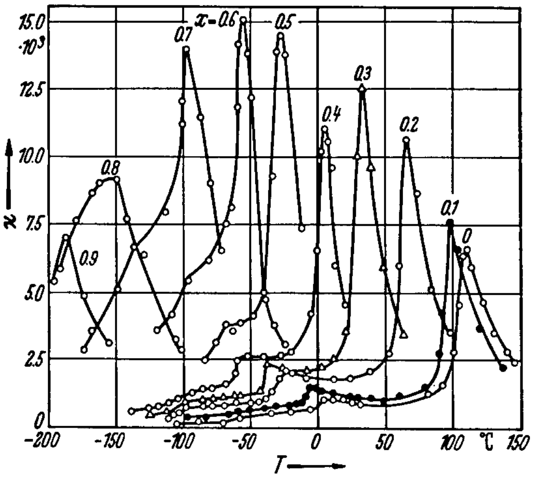

Fig. 1C-a28-008. $(Ba_{1-x}Sr_x)TiO_3$ (ceramics). κ vs. T [54Smo]. Parameter: x. f = 740 kHz.

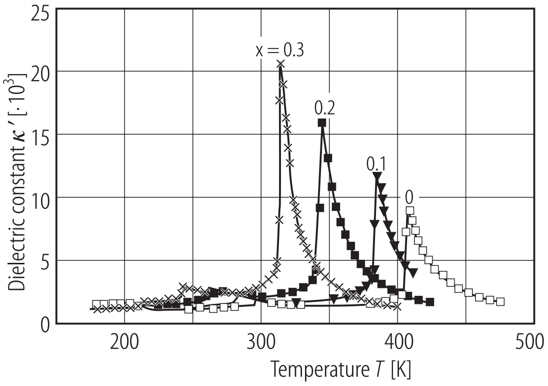

Fig. 1C-a28-009. $(Ba_{1-x}Sr_x)TiO_3$ (ceramics). *κ*' vs. *T* [91Kaz]. Parameter: x. *f* = 1 kHz.

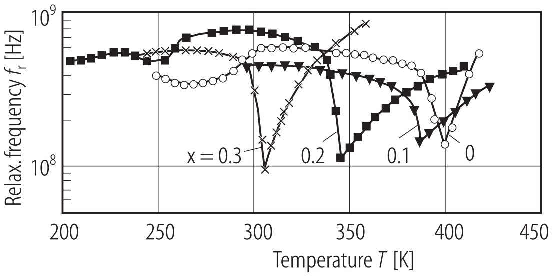

Fig. 1C-a28-010. $(Ba_{1-x}Sr_x)TiO_3$ (ceramics). f_r vs. T [91Kaz]. Parameter: x. f_r: dielectric relaxation frequency.

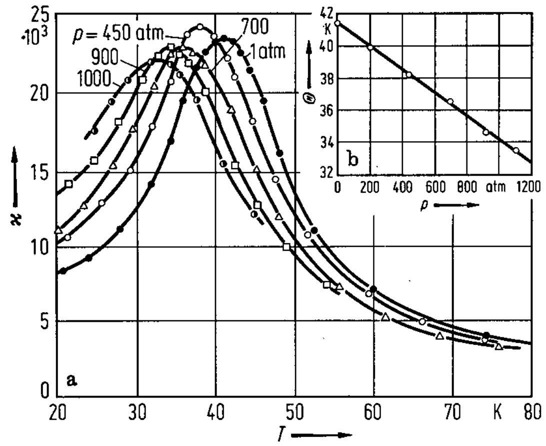

Fig. 1C-a28-011. $(Sr_{0.95}Ba_{0.05})TiO_3$ (ceramics). κ vs. T [67Heg]. Parameter: p. Insert: Θ vs. p. p: hydrostatic pressure. 1 atm = 101325 Pa.

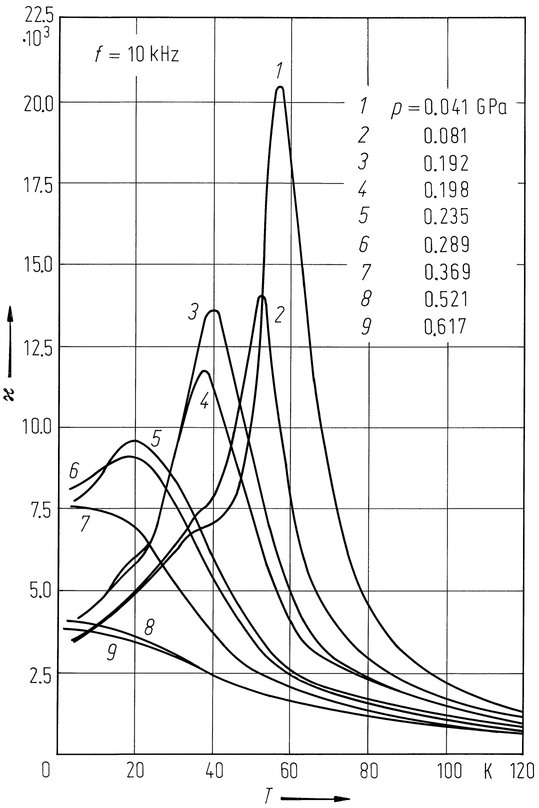

Fig. 1C-a28-012. $(Sr_{0.94}Ba_{0.06})TiO_3$ (ceramics). κ vs. T [87Rot]. Parameter: p. f = 10 kHz.

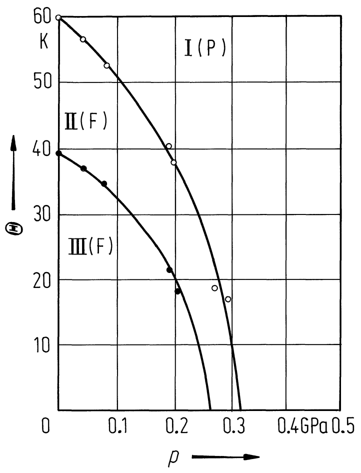

Fig. 1C-a28-013. $(Sr_{0.94}Ba_{0.06})TiO_3$. Θ vs. p [87Rot].

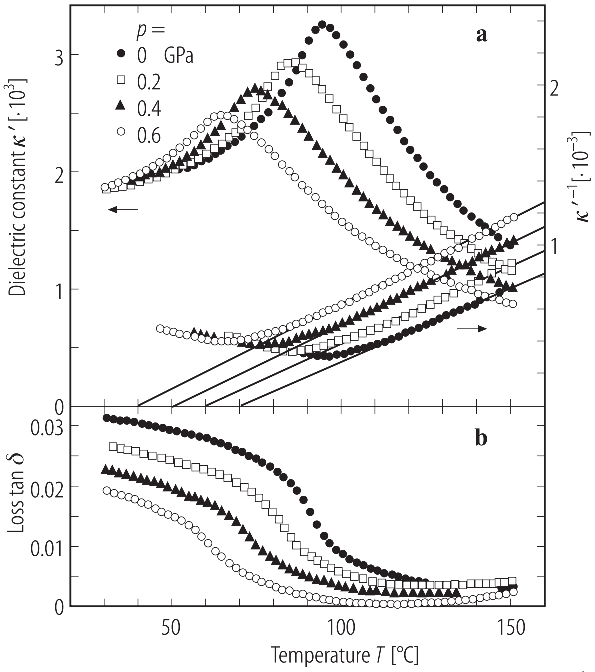

Fig. 1C-a28-014. $(Ba_{0.9}Sr_{0.1})TiO_3$ (ceramics). κ', κ'^{-1}, $\tan\delta$ vs. T [94Yas]. Parameter: p. p: hydrostatic pressure. f = 100 kHz.

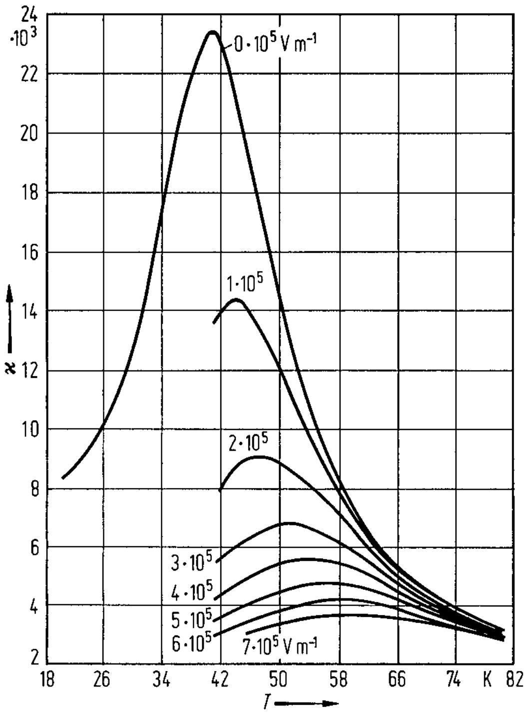

Fig. 1C-a28-015. $(Sr_{0.95}Ba_{0.05})TiO_3$ (ceramics). κ vs. T [65Heg]. Parameter: E. f = 0.8 kHz.

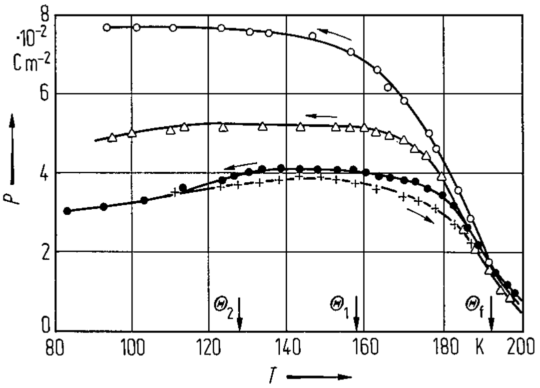

Fig. 1C-a28-016. $(Sr_{0.62}Ba_{0.38})TiO_3$ (ceramics). *P* vs. *T* [78Ben]. Parameter: *E*. *P*: polarization measured by hysteresis-loop method. *E*: electric field amplitude. Open circles: $E = 11\cdot10^5$ Vm^{-1}. Triangles: $E = 7.7\cdot10^5$ Vm^{-1}. Full circles: $E = 5\cdot10^5$ Vm^{-1}.

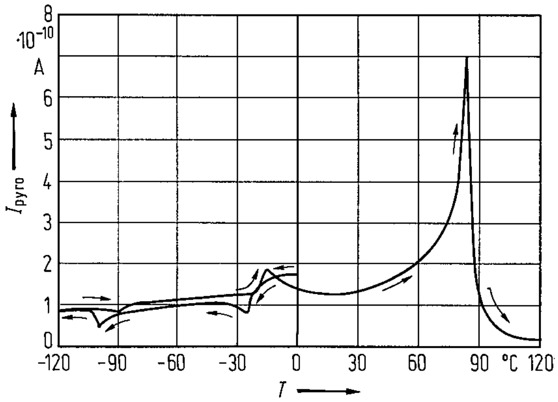

Fig. 1C-a28-017. $(Ba_{0.88}Sr_{0.12})TiO_3$ (ceramics). I_{pyro} vs. T [77Toy]. Parameter: E. I_{pyro}: pyroelectric current.

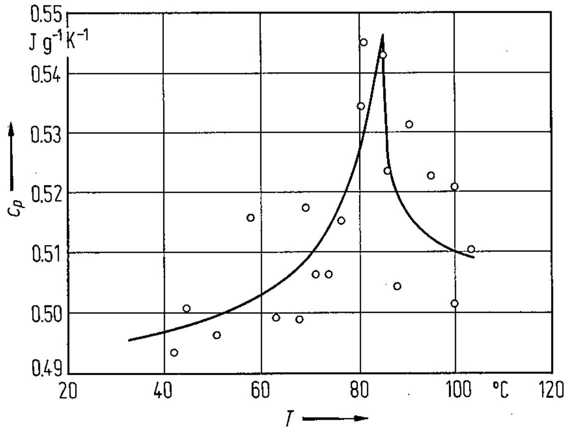

Fig. 1C-a28-018. $(Ba_{0.9}Sr_{0.1})TiO_3$ (ceramics). c_p vs. T [50Saw].

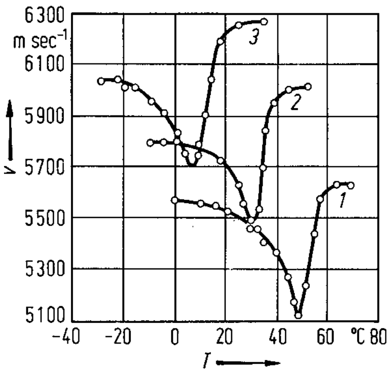

Fig. 1C-a28-019. $(Ba_{1-x}Sr_x)TiO_3$ (ceramics). *υ* vs. *T* [67Gri]. Parameter: x. *υ*: longitudinal sound velocity. Curve *1*: x = 0.25; curve *2*: x = 0.30; curve *3*: x = 0.35.

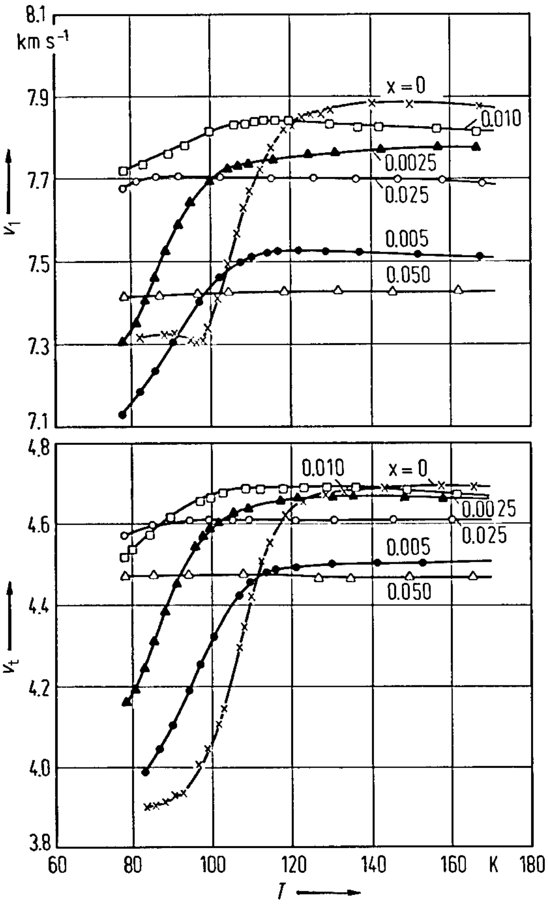

Fig. 1C-a28-020. $(Sr_{1-x}Ba_x)TiO_3$ (ceramics). v_l, v_t vs. T [75Rub]. Parameter: x. v_l: longitudinal and v_t: transverse ultrasonic velocities.

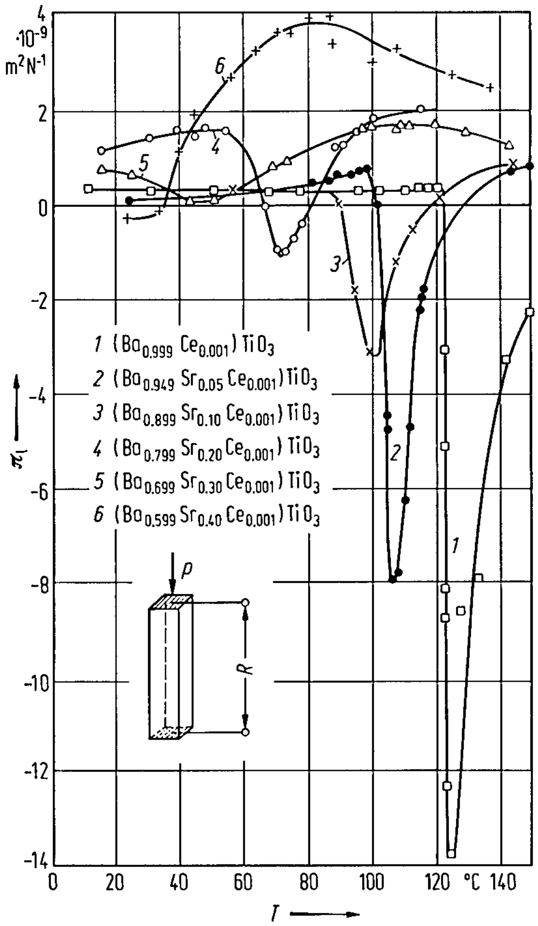

Fig. 1C-a28-021. $(Ba_{1-x}Sr_x)TiO_3$ (Ce-doped ceramics). π_l vs. T [60Sab]. π_l: longitudinal piezoresistive constant.

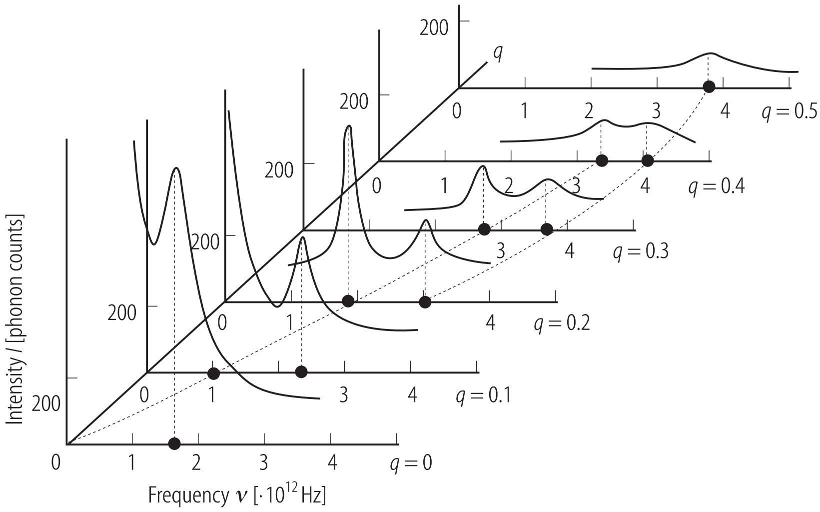

Fig. 1C-a28-022. ($Ba_{0.8}Sr_{0.2}$)TiO_3. I vs. ν [84Jan]. Parameter: q. I: neutron scattering intensity at 773 K, q: wave number of low-frequency transverse phonon in [00ξ] direction.

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