No. 1C-c33 $PbTiO_3$–$PbZrO_3$–$Pb(Cd_{1/2}W_{1/2})O_3$

1b	Phase diagram: Fig. 1C-c33-001.	
5a	Dielectric constant: Fig. 1C-c33-002, Fig. 1C-c33-003; see also	84Kon
c	Spontaneous polarization and coercive field: Fig. 1C-c33-004.	
8a	Acoustic surface wave: $Pb[Ti_{0.52}Zr_{0.46}(Cd_{1/2}W_{1/2})_{0.02}]O_3$ (ceramics with 0.8 wt % MnO_2 additives). v_s = 2280 ms^{-1} (v_s: surface sound velocity). k_s^2 = 0.023 (k^2 = electromechanical coupling factor), $\alpha_s = 6 \cdot 10^2$ dBm^{-1} at 30 MHz and $14 \cdot 10^2$ dBm^{-1} at 60 MHz (α: acoustic absorption coefficient). Temperature coefficient of delay time: see	76Iwa

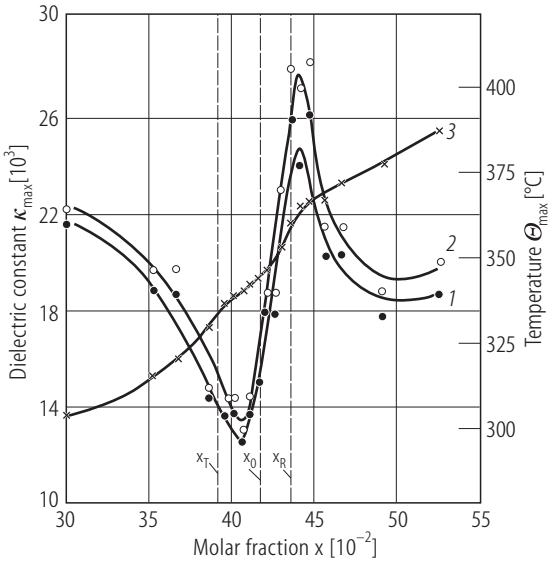

Fig. 1C-c33-001. x $PbTiO_3$·(0.9–x)$PbZrO_3$·0.1 $Pb(W_{1/2}Cd_{1/2})O_3$ (ceramics). κ_{max}, Θ_{max} vs. x [85Kwa]. Θ_{max}: temperature of the maximum dielectric constant κ_{max}. Curve *1*: κ_{max} heating. Curve *2*: κ_{max} cooling. Curve *3*: Θ_{max}. x_T and x_R are the boundaries of stability of tetragonal and rhombohedral ferroelectric phases, respectively. x_0 is the point corresponding to the same content of both ferroelectric phases.

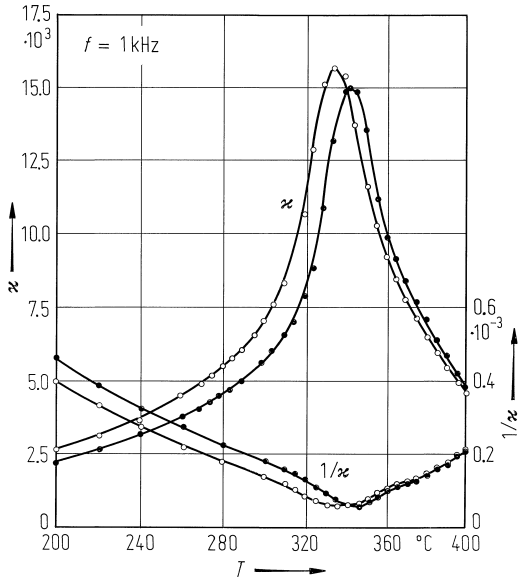

Fig. 1C-c33-002. 0.415 $PbTiO_3$·0.485 $PbZrO_3$·0.1 $Pb(Cd_{1/2}W_{1/2})O_3$ (ceramics). κ, κ^{-1} vs. T [85Kwa]. Full circles: heating, open circles: cooling. f = 1 kHz.

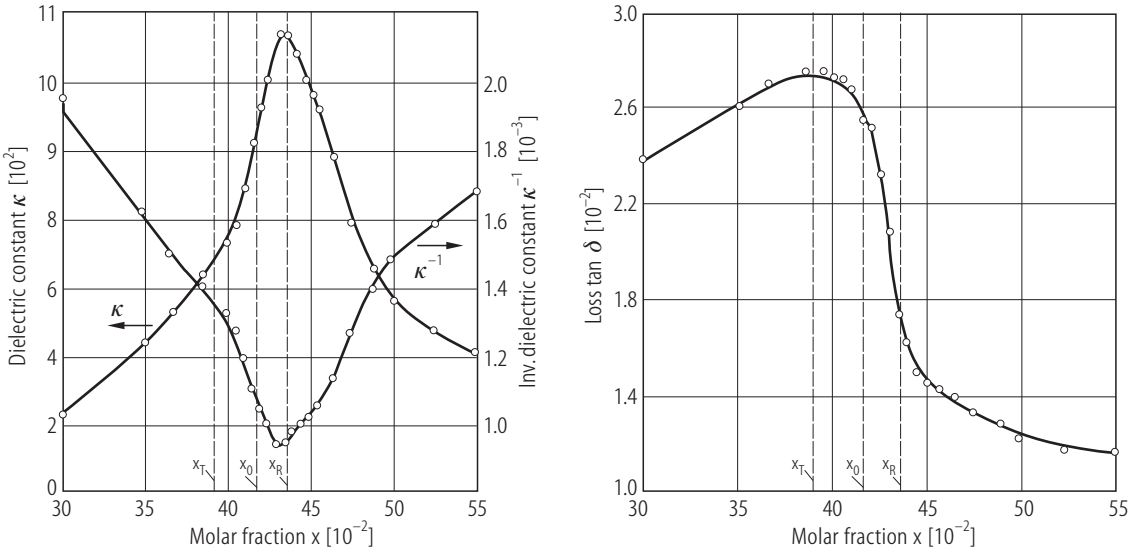

Fig. 1C-c33-003. x $PbTiO_3$·(0.9–x)$PbZrO_3$·0.1 $Pb(W_{1/2}Cd_{1/2})O_3$ (ceramics). κ, κ^{-1}, $\tan\delta$ vs. x [85Kwa]. f = 1 kHz. T = RT. x_T and x_R are the boundaries of stability of tetragonal and rhombohedral ferroelectric phases, respectively. x_0 is the point corresponding to the same content of both ferroelectric phases.

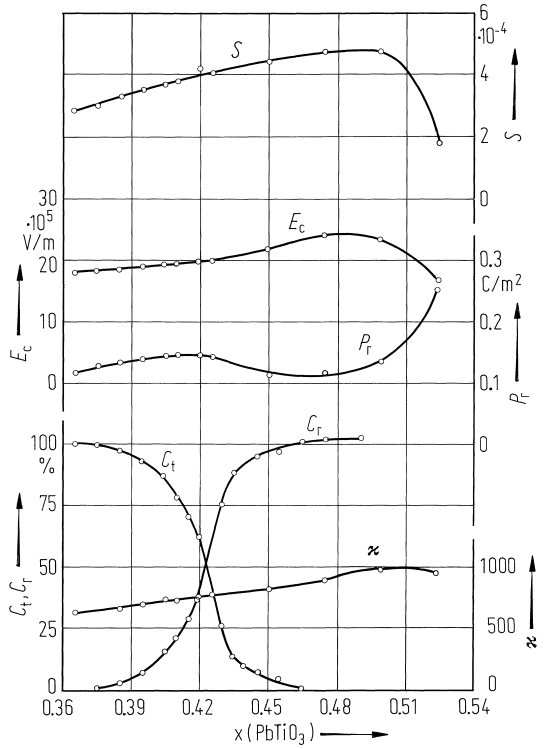

Fig. 1C-c33-004. x $PbTiO_3$·(0.9–x)$PbZrO_3$·0.1 $Pb(Cd_{1/2}W_{1/2})O_3$ (ceramics). C_t, C_r, $\varkappa$, E_c, P_r, S vs. x [84Kon]. C_t, C_r: concentration of tetragonal and rhombohedral phases. S: strain. T = 20 °C.

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