No. 1C-a73 $PbTiO_3$–$BiFeO_3$

1b	Phase diagram: Fig. 1C-a73-001.	
3a	Lattice parameters: Fig. 1C-a73-002; see also	62Fed
5a	Dielectric constant: Fig. 1C-a73-003; see also	62Fed
13c	Mössbauer effect: Fig. 1C-a73-004.	

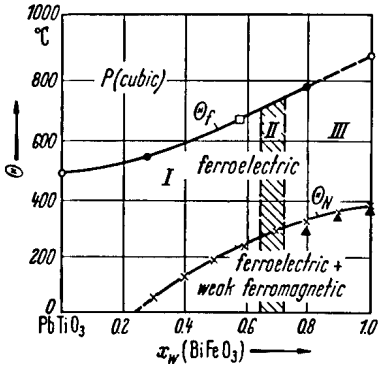

Fig. 1C-a73-001. (1–x)$PbTiO_3$·x $BiFeO_3$. Θ_f, Θ_N vs. x_w [62Fed, 64Fed]. x_w: weight fraction of $BiFeO_3$. I: tetragonal, II: tetragonal + rhombohedral, III: rhombohedral. (x_w = x M_{BF} / [(1–x)M_{PT} + x M_{BF}], where M_{PT} and M_{BF} are molecular weight of $PbTiO_3$ and $BiFeO_3$, respectively.)

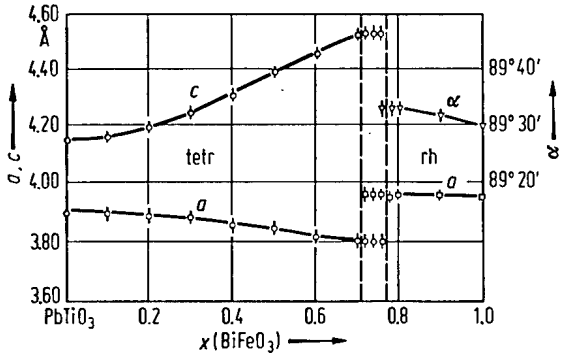

Fig. 1C-a73-002. (1−x)$PbTiO_3$·x $BiFeO_3$. Lattice parameters vs. x [68Smi].

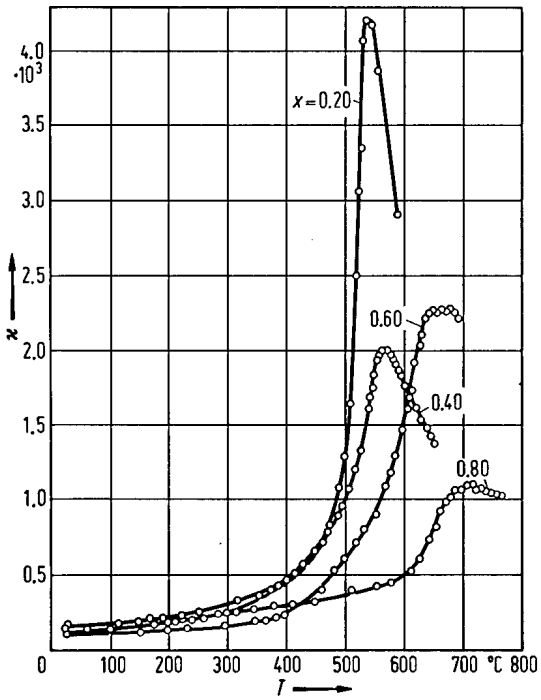

Fig. 1C-a73-003. (1−x)$PbTiO_3$·x $BiFeO_3$ (ceramics). κ vs. T [68Smi]. Parameter: x. f = 530 MHz.

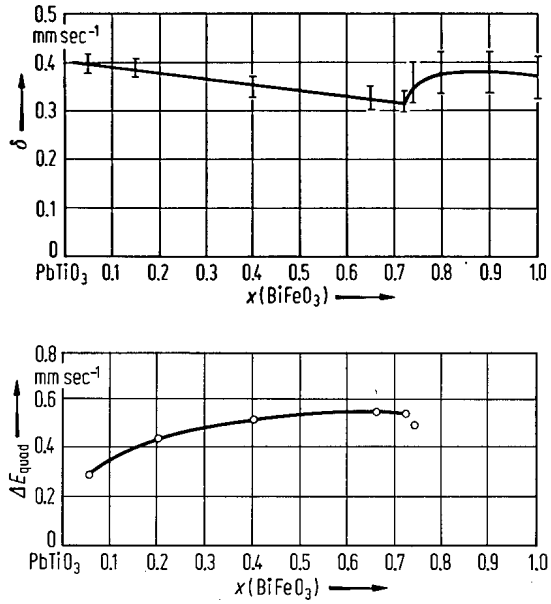

Fig. 1C-a73-004. (1–x)$PbTiO_3$·x $BiFeO_3$. δ , ΔE_{quad} vs. x [71Yag]. δ: isomer shift, ΔE_{quad}: quadrupole splitting (at RT).

References

62Fed Fedulov, S.A., Venevtsev, Yu.N., Zhdanov, G.S., Smazhevskaya, E.G., Rez, I.S.: Kristallografiya **7** (1962) 77; Sov. Phys. Crystallogr. (English Transl.) **7** (1962) 62.

64Fed Fedulov, S.A., Ladyzhinskii, P.B., Pyatigorskaya, I.L., Venevtsev, Yu.N.: Fiz. Tverd. Tela **6** (1964) 475; Sov. Phys. Solid State (English Transl.) **6** (1964) 375.

68Smi Smith, R.T., Achenbach, C.D., Gerson, R., James, W.J.: J. Appl. Phys. **39** (1968) 70.

71Yag Yagnik, C.M., Gerson, R., James, W.J.: J. Appl. Phys. **42** (1971) 395.