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Study of Ferroelectric Domains in a Phase Separated Multiferroic Mixture by Variable Temperature Electrostatic Force Microscopy[1]
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We present a variable temperature Electrostatic Force Microscopy (VTEFM) study on a mixed multiferroic crystal. The sample was synthesized by the floating zone method. It was cut and polished with the surface normal to the growth direction. The chemical phase separation is clearly seen by polarized optical microscopy. The transition temperature is about 25K and 900K for the two different phases. The VTEFM images taken at 77 K reveal the ferroelectric domains, with typical sizes in the order of micrometers.

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