

POLARIZATION AND PYROELECTRIC
COEFFICIENTS OF ANTIFERRODISTORTIVE
BOUNDARIES: SrTiO₃ AS AN EXAMPLE

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The spatial distributions and the temperature dependences of a local polarization and the pyroelectric coefficient in a vicinity of antiferrodistortive boundaries in SrTiO₃ at temperatures lower than that of the antiferrodistortive structural phase transition (≈ 105 K) have been studied analytically and numerically in the framework of the Landau–Ginsburg–Devonshire theory. The polarization in the near-wall region is supposed to emerge as a result of the flexoelectric field and the rotostriction.