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The monograph presents basic regularities of disturbances and local amplifications of a low-frequency sinusoidal electric field by conducting microinclusions in dielectrics. Analysis of force interactions of field and liquid conducting microinclusions able to cause degradation of solid dielectrics, is conducted. Electrophysical mechanisms of water trees formation in solid polymeric insulation of electrical cables for electrical purposes are studied.

For specialists in the field of analysis of inhomogeneous electric fields, development and application of power cables with polymeric insulation, and for postgraduate students and students of electrotechnical specialities.