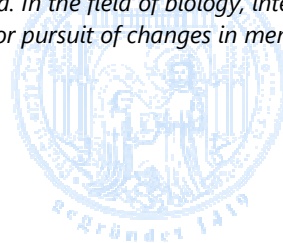


## Characterization of particles and biological cells by AC-electrokinetics.

Gimsa, J., 2002. In Á. V. Delgado (Ed.): Interfacial electrokinetics and electrophoresis. 369–400, Marcel Dekker, Inc., New York. ISBN 0-8247-0603-X.

**Abstract:** *In the growing research into the interaction of AC electric fields with colloidal particles and biological cells, AC electrokinetic methods [1-15] are increasingly replacing classical impedance methods [5, 16-18]. The reason is the higher resolution of the electrokinetic methods for the electrical parameters of single objects, resulting from their different measuring principles. While impedance methods register the direct electric response of a suspension to an applied electric field, e.g., an alternating current, AC electrokinetic methods register force effects which arise from the interaction of the induced polarization charges with the inducing field. In the field of biology, interesting applications of electrokinetic methods are the determination, screening, or pursuit of changes in membrane capacitance, membrane conductance, and cytoplasmic properties [1, 9, 19-32].*

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