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Dielectric relaxation of the cowle-cowle type and self-similar relaxation processes

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Abstract

In order to describe relaxation processes not obeying an exponential law a model of a self-similar relaxation process is proposed which is described by an equation containing fractional differentiation operators. It turns out that the complex susceptibility corresponding to such a model system has a form which agrees with the known empirical Cowle-Cowle expression. © 1997 Plenum Publishing Corporation.
