Ferroelectrics 2016 vol.503 N1, pages 133-137

Theory of phase transitions in systems with defects and development of phenomenological theory of relaxors

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Abstract

© 2016 Taylor & Francis Group, LLC.Theory of phase transitions in systems with defects is considered and phenomenological theory of the diffuse phase transition has been proposed. The temperature behavior and dispersion of the dielectric properties in the region of the diffuse phase transition has been associated with the dynamics of the charge delocalization on defects. The consideration has been performed on the basis of simple thermodynamic ideas in the framework of the Sigov-Levanyuk approach to the phenomenological theory of phase transitions in the system with defects.

http://dx.doi.org/10.1080/00150193.2016.1217138

Keywords

Phase transitions, phenomenological theory, relaxors