

Electrical properties and microstructure of glass—ceramic materials from CaO-MgO-Al₂O₃-SiO₂ system

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Abstract

The electrical (volume conductivity) and dielectric (loss factor and dielectric constant) properties of glass-ceramics belonging to the CaO-MgO-Al₂O₃-SiO₂ system have been studied, as a function of microstructure, in their glassy and ceramized forms on samples obtained as bulk materials or sintered powders. A possible application of these materials as substrates for electronic devices can be envisaged, on account of their low conductivities ($<10^{-14}$ S cm⁻¹ up to 250°C), loss factor and permittivity values.

Keywords

Polymer Microstructure Dielectric Constant Electrical Property
Electronic Device

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