Electrical properties and microstructure of glass—ceramic materials from $CaO-MgO-Al_2O_3-SiO_2$ system

Journal of Materials Science

November 1996, Volume 31, Issue 22, pp 5993–5998 | Cite as

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Article
Received: 03 January 1996
Accepted: 13 June 1996

Abstract

The electrical (volume conductivity) and dielectric (loss factor and dielectric constant) properties of glass-ceramics belonging to the $CaO-MgO-Al_2O_3-SiO_2$ 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

Preview

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Cite this article as:
Saccani, A., Sandrolini, F., Leonelli, C. et al. J Mater Sci (1996) 31: 5993. https://doi.org/10.1007/BF01152150

- DOI (Digital Object Identifier) https://doi.org/10.1007/BF01152150
- Publisher Name Kluwer Academic Publishers
- Print ISSN 0022-2461
- Online ISSN 1573-4803

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