

Dielectric characterization of Ba_{0.6}La_{0.4}Sn_{0.6}Mn_{0.4}O₃ ceramic

ABSTRACT

The prepared Ba_{0.6}La_{0.4}Sn_{0.6}Mn_{0.4}O₃ ceramic sample using solid state technique has been studied and its dielectric behaviour as a function of frequency and temperature are presented in normalized form. At -25 to 75 °C, the dielectric spectra displayed the behaviour of low frequency dispersion (LFD) where some of the charge carriers (electronic) are bound and some are moving freely. However, at elevated temperature above 75 °C, the carrier's blockade occurred due to the rising up of interfacial and internal barrier effect at low and intermediate frequency, respectively.

Keyword: Dielectric characterization; Dielectric dispersion; Low frequency dispersion; Ceramic