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| Title | Electrical modulus and impedance spectroscopy of CoFe2O4 nanoparticles embedded into the PVA matrix | | |
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| Abstract: Polyvinyl alcohol-Cobalt ferrite (CoFe2O4) (PVA-CFO) flexible nanocomposite films with different concentration of CFO nanoparticles (i.e. 4 and 10 wt%) is successfully synthesized by wet-chemical and drop casting process. The asymmetric nature of the imaginary part of the electric modulus spectra with frequency represent the presence of dielectric relaxation behavior in the charge transport mechanism and follow the non-Debye type behavior. The presence of relaxation peaks also observed in frequency dependent impedance spectroscopy plot. The contribution of grain and the interfacial effect on the conduction mechanism is confirmed from the Nyquist plot. The detailed dielectric relaxation phenomena of charge transport conduction mechanism study here. |  |
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