Structural, Morphology and Dielectric properties of multi-ion doped NaNiMnO2

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**Abstract**. Nanoparticles of NaNiMnO2 oxide were successfully synthesized via solid state-method. Its structural properties were characterized by X-ray diffraction (XRD) which confirms the crystalline structure, crystalline orientation and crystalline size with the help of Debye-Scherrer formula. The morphology was investigated by high resolution microscopy- Scanning electron microscopy (SEM) which examines surface fractures and grain size with grain boundary precipitates. Fourier transform infrared spectroscopy (FTIR) was used to identify the metal oxygen bonding and the corresponding wave number range. Frequency- dependent dielectric measurement yields promising dielectric properties, confirming the oxide as a potential candidate for electronic devices.

References:

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