

Dr. Kailash Rambhau Nemade: Effect of Tin Doping on DC Electrical Properties of Polyaniline

The Sn doped polyaniline hydrochloride is synthesized by chemical oxidation method at room temperature. The SnCl_4 is used as dopent. The DC electrical conductivity of the samples is measured and $\log \sigma$ Vs $1/T$ plot is drawn for explanation of equation (1). The plot is nonlinear. The values of activation energy are found to in range of 0.05 eV -0.3eV which is quite agreement with the values reported in the literture. It is observed that the DC electrical conductivity increases with increasing SnCl_4 molar concentration. FTIR spectra of the samples is obtained in the range of 400-4000 cm^{-1} with 4 cm^{-1} deviation. The structure is discussed on the basis of spectra.

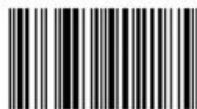


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