**Abstract**

Copper acetate and Tin dihydrate were used as a precursor to prepare CuO-SnO2 thin films. Composite films of different ratios were prepared by spray pyrolysis method. The prepared films were characterized by X-ray diffraction (XRD), Scanning Electron Microscopy (SEM), Energy Dispersive X-Ray analysis (EDX) and Optical absorption spectroscopy. The grain size was calculated from different peaks is 27 to 54 nm shows nano structured thin films. EDX analysis confirms the composition of deposited thin film. The band gap of the composite thin films obtained from the optical absorption spectra is to be in the range of 2.98 to 3.67 eV