

Abstract

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Gas Sensing Characteristics for Polypyrrole Coated Copper Nanowires

polypyrrole (ppy) and polypyrrole coated copper have been synthesized successfully by chemical process. PPy sensors were fabricated on glass substrates dip-coating technique. The various interfaces were characterized using different techniques such as x-ray diffraction (XRD), Fourier transform infrared spectroscopy (FT-IR), scanning electron microscopy (SEM) and Thermal Gravimetric Analysis (TGA). The gas sensitivity for both O₂ and CO₂ gases were measured for (ppy) coated copper for the fabricated gas sensor devices as a function of temperature.