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.