

# **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 O<sub>2</sub> and CO<sub>2</sub> gases were measured for (ppy) coated copper for the fabricated gas sensor devices as a function of temperature.