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GREEN SYNTHESIS AND CHARACTERIZATION OF METAL OXIDES/POLYMER NANOFIBERS FOR VARIOUS APPLICATIONS

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Green chemistry has been of great interest to researcher in the area of synthesis and fabrication of nanoparticles for waste water treatment and electrochemical sensors application. This research therefore report the green synthesis of metal and metal oxide nanoparticles for various application. The synthesized nanofibers were characterized by using spectroscopic, morphological and electrochemical techniques such as cyclic voltammetry and impedance spectroscopy. Further studies were conducted on the synthesized nanomaterials such as antimicrobial properties, toxicity studies, the electron transport

properties, stability and reproducibility of the nanomaterials. The purpose of the study is also to evaluate the electrochemical properties of nanoparticles synthesized via green plants extract and further applied towards the electrochemical detection of various biological and environmental molecules. The synthesized nanomaterials showed good applications in electrochemical sensors, waste water treatment and wound healing.

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