



***Raphanus sativus* Mediated Synthesis, Characterization and Biological Evaluation of Zinc Oxide Nanoparticles**

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Biological synthesis of nanoparticles employing plants and their extracts is cheap and eco-friendly technique as compared to physical and chemical procedures that are expensive and hazardous to the environment. In this study, Zinc oxide (ZnO) nanoparticles were synthesized using leaf extract of *Raphanus sativus*. Energy Dispersive X-ray, Scanning Electron Microscopy and X-ray Diffraction were used for characterization. *In-vitro*, antibacterial activity against, *Listeria monocytogenes*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Klebsiella pneumoniae* and *Staphylococcus aureus*, and antifungal activity against, *Candida albicans* and *Aspergillus flavus* were investigated. Furthermore, the influence of precursor salt and capping agent concentrations on the size, morphology and subsequently on the antimicrobial activity of nanoparticles was examined by synthesizing six samples of ZnO nanoparticles at varying concentrations of zinc sulphate heptahydrate ($ZnSO_4 \cdot 7H_2O$) and *R. sativus* leaf extract. Synthesized nanoparticles were spherical shaped and their size and agglomeration inclined with increasing zinc sulphate concentration, while declined with increasing