**Abstract**

The biosynthesis of nanoparticles has been proposed as a cost-effective and environmentally friendly alternative to chemical and physical methods. Plant-mediated synthesis of nanoparticles is a green chemistry approach that connects nanotechnology with plants. Various techniques used to characterize synthesized nanoparticles are SEM and UV–Visible spectrophotometer. UV–Visible spectrophotometer showed absorbance peak in range of 450–550nm. The silver nanoparticles showed antibacterial activities of ***Nymphaea odorata*root extract** against both gram positive (Staphylococcus aureus) and gram negative (Escherichia coli) microorganisms. The synthesized (silverNps) were found to be effective as antimicrobial agents against some important human pathogens