



## Evaluation of Antioxidant & Antimicrobial activity of synthesized silver nanoparticles using *Phyllanthus niruri*

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**Abstract:** *The medicinal plants represent an enormous reservoir of potential phytochemical compounds that could be useful as an alternative to allopathic drugs and are being used to develop Pharma drugs. Phyllanthus niruri has medicinal properties for the effective management of several ailments including Hepatitis. The present investigation was aimed to focus on the screening of phytochemical constituents. An environmental friendly approach is employed to synthesize silver nanoparticles. The biomolecules found in plants induce the reduction of Ag<sup>+</sup> ions from silver nitrate to silver nanoparticles (AgNPs). UV-visible spectrum of the aqueous*

*medium containing silver ions demonstrated a peak at 280nm and 580nm corresponding to the Plasmon absorbance of silver nanoparticles. Fourier Transform Infra-Red (FT-IR) spectroscopy was done to find the functional groups present. Antioxidant activities were done using Hydrogen Peroxide assay and antibacterial activity of Phyllanthus niruri AgNP extract. Different extracts of P niruri has the medicinally useful secondary metabolites and also act as antibacterial agent on bacterial (E.coli and S.aureus) strains. Green synthesis of silver nanoparticles exhibits an important eco friendly and useful to the environment. UV-visible spectrophotometer used to predict that where the synthesis has been done or not. Whereas the organic functional groups were determined by FT-IR with different wave number and it has determined by the functional group data analysis.*

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