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**A STUDY OF SYNTHESIS CHARACTERIZATION OF SILVER  
NANOPARTICLE**

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**ABSTRACT**

SEM and AFM investigation revealed silver nanoparticles with a diameter of 20-40 nm. Silver nanoparticles were formed when aqueous silver ions were subjected to chemical reduction and floral extracts. X-ray Diffraction (XRD) and Fourier Transform Infrared Spectroscopy (FTIR) were used to analyze the silver nanoparticles that were produced in this manner. There is an absorption peak about 400 nm for both chemically and biochemically synthesized silver nanoparticles in the UV-Visible spectrum. These (111), (200), (220), and (311) lattice planes of the FCC structure of silver were shown to be present in silver nanoparticles. Floral extracts include bioactive components such as phenol, flavonoid and amide groups that have a role in the reduction and capping of silver nanoparticles, according to FTIR studies. The synthesized silver nanoparticles were virtually spherical in form, as seen by TEM pictures, and measured between 5 and 50 nm.