

## ABSTRACT

Physical and chemical methods for the synthesis of nanoparticles have many disadvantages therefore green synthesis method is used because it has many advantages; therefore its use is increased gradually for the preparation of NPs. Green synthesis method is very quick, environmental friendly and has more efficiency. Using green synthesis method AgNPs is prepared using mucilage of quince seed. These AgNPs are characterized by UV-Visible spectrophotometer, FTIR, SEM, and XRD. In UV spectra presence of peak at 400 nm indicates the synthesis of AgNPs. Functional groups present in mucilage and in AgNPs are determined through FTIR spectra. In the FTIR spectra of AgNPs presence of peak at  $1633\text{ cm}^{-1}$  indicates the AgNPs formation. The composition and morphology of AgNPs is investigated through XRD and SEM. The shape of AgNPs is spherical. The synthesized nanoparticles are used for the photocatalytic dye degradation. The photocatalytic activity of AgNPs is determined against methyl orange and results reveal that AgNPs are effective in the degradation of methyl orange dye degrade the dye upto 61.2%.