**Antimicrobial activity of silver nanoparticles synthesized by using *Croton sparsiflours***

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In recent years, nano materials have been an area of immense interest due to their application potentialities in various fields like biomedical sciences, catalysis, optics, mechanics, energy sciences and magnetics, etc. Green nanotechnology is gaining importance due to the elimination of harmful reagents and provides effective synthesis of expected products in an economical manner. Antibacterial activity of silver containing materials can be applied in medicine for reduction of infections on the burn treatment, prevention of bacteria colonization on catheters and elimination of microorganisms on textile fabrics as well as disinfection in water treatment. In the present investigation, the silver nanoparticles (Ag Nps) are synthesized using the medicinal plant *Croton sparsiflours* (CS)*.* The Ag Nps were characterized using UV-Visible spectroscopy andSEM and diversity has been observed in size and shape of the Ag Nps synthesized. The synthesized Ag Nps were tested for their antimicrobial activity by using different bacterial species. The Ag Nps synthesized using the plant of CSshows significant inhibition zones.

Key words: Silver nanoparticles, Antibacterial, Green synthesis, *Croton sparsiflours*