**Analytical Chemistry Technique to "Preparation, Characterization & Antibacterial Evaluation of Silver Nanoparticles from extract Medicinal Plant"**

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## Abstract

"AIM"- This project aims to make silver nanoparticles from extract medicinal plants, describe them, and test their antibacterial efficacy. "MATERIAL & METHODS" Fresh "Shafallah tree"or other name A. scholaris "Devil tree" leaves free of infection obtained from various places. To release intracellular chemicals into solution, heat the mixture at 60° C for 15 minutes while stirring constantly. This sample must be chilled and filtered using simple filter paper with Whatman No. 1 filter paper, then freeze at 4° C and utilized to manufacture biogenic silver nanoparticles. 10 mL of A. scholaris plant component extracts "leaves, foliage, and fruits" have been given one by one to a 250 mL conical flask containing 100 mL 5mM silver nitrate solution. The AgNO3 solution is originally whitish in color, but after being swirled constantly for 30 to 60 minutes at room temperature (30 °C), the hue changed from whitish to brownish orange, visibly confirming the creation of biogenic silver nanoparticles. The employment of NaCl as a suspending electrolyte arrangement is used to analyze the initial weakening of the nanoparticles' fluid response (5mL) with twice refined water "50 mL" "2 x10-2 M NaCl". The needed pH cost is then altered at that moment.- "RESULTS"- The green amalgamation of silver nanoparticles is performed using pre-arranged various plant components. According to the inscription, the silver nanoparticle arrangement is shaded from dull brown to blackish. The color altered from colorless to brownish orange to blackish after adding A. scholaris leaf extracts to AgNO3 solution, indicating AgNPs production. "CONCLUSION"-According to the study, AgNPs antibacterial action is thought to be due to its positive charge. The concentration of biogenic AgNO3 determines their antibacterial efficacy against Gram-negative bacteria.