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## Patent Search

Invention Title	SYNTHESIS AND PHARMACOLOGICAL EVALUATION OF IBUPROFEN ENTRAPPED SILVER NANOPARTICLES USING HERBALS
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**Abstract:**

The present invention relates to synthesis of ibuprofen loaded silver nanoparticles by using herbal extract. The method used for the synthesis of silver Nano particles by green synthesis and to formulate a cost-effective antibacterial dosage form. The prepared ibuprofen loaded silver nanoparticles by using fruit extracts were effective against the gram negative bacteria E.coli.

**Complete Specification**

The present invention relates to a "Potentiation of Antibacterial Efficacy of Ibuprofen Entrapped Silver Nanoparticles by Green Synthesis"

**BACKGROUND OF THE INVENTION**

Antibiotic resistant problem is a global concern because of the ability of bacteria to cause community acquired infection. Many scientific approaches have been developed to deal with antibiotic resistance and to make antibiotic more therapeutic, safe and effective. In this development silver was found as antimicrobial agent with distinctive properties of conductivity, stability, and activity. Previous data show that nanoparticles of silver are effective against a wide spectrum of bacteria, fungi, viruses, some infectious diseases and burn wounds. With the rise in microbial resistance of to various antibiotics, researchers are urged to grow silver nanoparticles free of resistance and cost by various green sources. The antibacterial efficacy of silver nanoparticle was found more when they are loaded with antibacterial agent by green synthesis.

Silver (Ag) is a soft, white, lustrous transition metal having 47 atomic number. Silver has the highest thermal and electrical conductivity and one of the highest optical reflectivity of any metal. The unique properties of silver nanoparticles like, optical, electrical, and magnetic etc makes them suitable to be used in antimicrobial applications, biosensors, cosmetics etc. Specific physical and chemical approaches have been used in Ag nanoparticles synthesis and stabilization. Chemical reduction is the most popular chemical approach which includes an array of organic and inorganic reduction agents.

In recent days, synthesis of Ag nanoparticle is the most interesting research field in science, and nanoparticles are being developed with growing focus using environmentally friendly methods (green chemistry). Silver and its nanoparticles have a ample application in medicinal products such as skin ointments and silver

creams that prevent burns. open wounds and microbial attack.

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