

Name of the Technology: An antimicrobial agent and preparation thereof

Summary: Synthesis of nonmaterial of desired size and indifferent medium is a very challenging task. The proposed material of desired size has been synthesized in solvent and water based matrix. The synthesized material exhibits antimicrobial activity against several gram positive bacteria viz; *Bacillus cereus*, *Bacillus subtilis*, *Bacillus licheniformis*, *Staphylococcus aureus*, *Streptococcus pyogenes* and gram negative bacteria like *E. coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *Serratia marcescens*, *Salmonella typhimurium*, *Proteus hauseri* and fungi like *Trichoderma*, *Fusarium* and *aspergillus* one in various matrixes like water, paint etc. The proposed material efficiently inhibits the growth of several microbes in several matrixes effectively without any side affect on users and environment. The synthesis process is low cost and eco friendly.

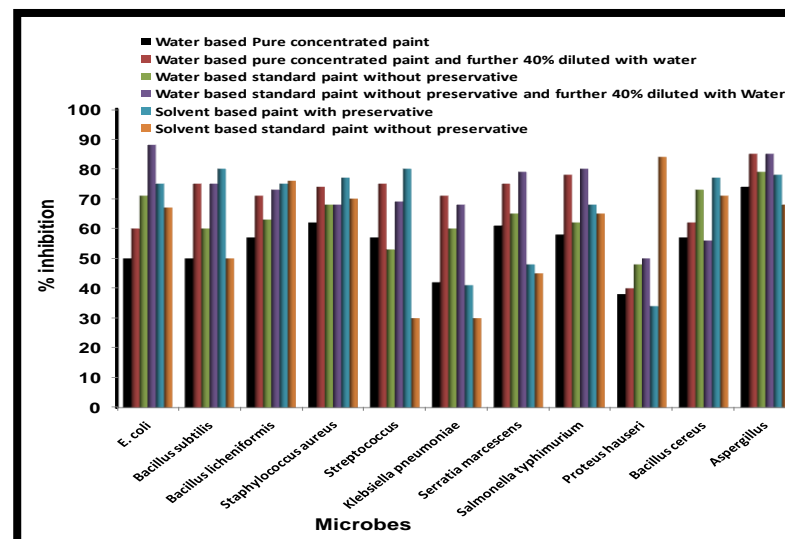
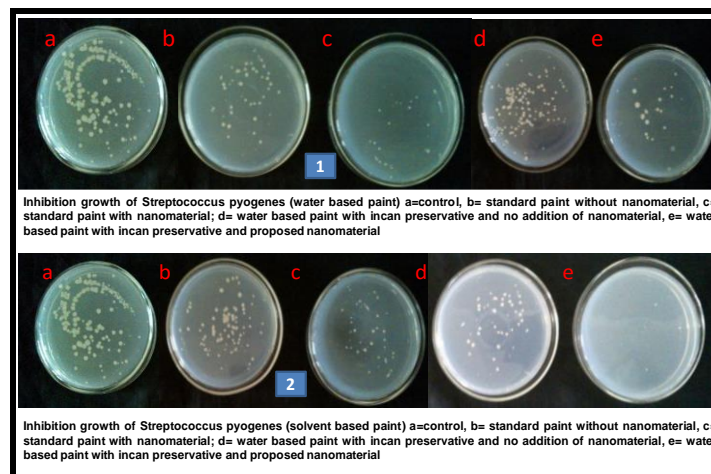
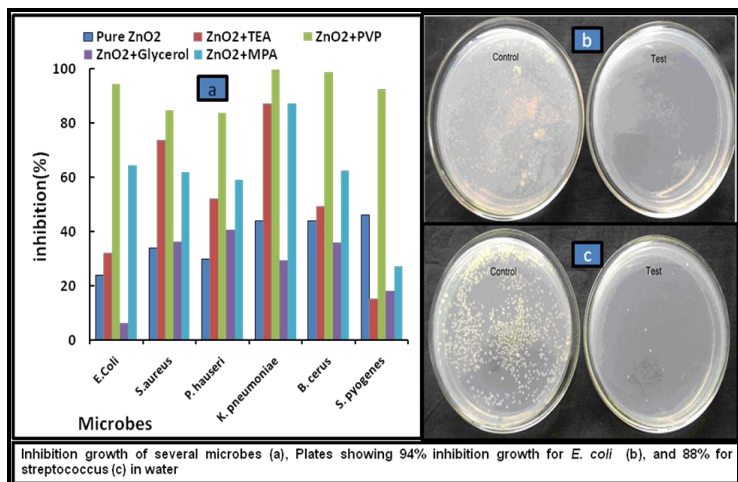


Figure showing microbes inhibition in paint



Figures microbes inhibition in water, solvent or water based paint



Applications: water, paint, cement, wall putty etc to inhibit microbes growth

Advantages: Low cost, highly effective, environment friendly

Choose the Readiness level of the Technology:

Idea	Concept Definition	Proof of Concept	Prototype	Lab Validation	Technology Development	Technology Demonstration	Technology Integrated	Market Launch

Related Patents: 049NF2014

Country: India; Publication Date: 24/02/2014; Grant Date: pending; Year of Introduction: 2011-13

Broad Area/Category: Nanomaterial

User Industries: Water purification industries, Paint, cement, wall putty