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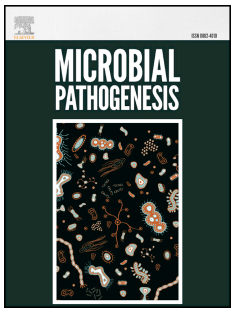

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Antimicrobial activity of Plant-median Synthesized Silver Nanoparticles against Food and Agricultursal Pathogens

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Abstract

The adjuvant applications of silver nanoparticles (AgNPs) in food and agro-ecosystems are not completely pursued, which most of the researchers confined to laboratory inventions. AgNPs is gaining a lot of interest among worldwide researcher due to exhibit antimicrobial properties and unique physiochemical properties. In addition, the facile and economically friendly method called biological method to synthesis of AgNPs using *Bryophyllum pinnatum* leaf extract over other methods and including antimicrobial properties, there is no doubt that AgNPs could be twirled the food and agricultural sector in future. The Ag ion reduced to AgNPs within 5 minute. The AgNPs had synthesized in pure state of face-centered-cubic nano-crystalline metallic silver with spherical in shape and well dispersed. The AgNPs exhibited against food (Escherichia coli-MTCC-443) and agriculture (Bacillus megaterium-MTCC-2412) pathogens. The synthesized AgNPs are strongly active against microbial associated with food and agriculture pathogens.

Keywords*: Antimicrobial activity, silver nanoparticles, Bryophyllum pinnatum leaf extract, crystalline structure.*