

عنوان مقاله:

A facile and rapid method for green synthesis of Silver Myco nanoparticles using endophytic

محل انتشار:

مجله بین المللی ابعاد نانو، دوره 9، شماره 4 (سال: 1397)

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خلاصه مقاله:

The Myco silver nanoparticles (AgNPs) are synthesized through bio-reduction reaction of silver nitrate by cell-free filtrate of endophytic fungi, which act as both reducing and capping agent. The synthesis of silver nanoparticles (AgNPs) was confirmed through UV-VIS spectroscopy, Fourier Transform Infrared (FTIR), Transmission Electron Microscope (TEM), Scanning Electron Microscope (SEM). Energy Dispersive spectroscopy (EDAX) was used to study the structure, morphology, shape, and composition of synthesized nanoparticles. The efficacy of the silver nanoparticles (AgNPs) was tested against the pathogenic bacterial strains such as K. pneumonia, A. Baumannii, P. mirabilis, S. Typhimurium, P. aeruginosa and E. Coli. The myco silver nano particles treatment significantly reduced the growth of all the bacterial species tested in this study. The results suggested that myco nanoparticles can be utilized as an alternative to antibiotics or to break antimicrobial resistance.

کلمات کلیدی:

Antimicrobial effects, EDAX, Endophytic Fungi, SEM, Silver nanoparticles, TEM

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