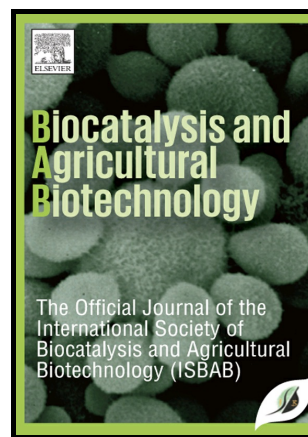


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Abstract

Silver nanoparticles were synthesized using the fruit extracts of *Momordica charantia* (*Mc*-AgNPs). The structural characterization of *Mc*-AgNPs was performed by UV-vis spectroscopy, X-ray diffraction (XRD), Fourier infrared transform spectroscopy (FTIR) and Transmission electron microscopy (TEM). UV-vis recorded the absorbance spectra at 460 nm. XRD shows the crystalline nature of silver nanoparticles with various Bragg's reflection peaks at 111, 200, 220 and 311. FTIR spectra of the synthesized *Mc*-AgNPs showed strong bands at 1382, 1203, 1151, 1102, 1013 and 654 cm⁻¹ which corresponds to O-H, C-H, C-C, C-OH and C-N groups. TEM showed the spherical shape of *Mc*-AgNPs with particle between 16 nm. The antibacterial activity of *Mc*-AgNPs was tested against Gram-positive and Gram-negative bacteria. *Mc*-AgNPs showed greater inhibition of *Enterococcus faecalis* at 100 µg ml⁻¹ compared

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