**Abstract**

Nanotechnology forms one of the emerging subjects of research with regard to the modern biological and material sciences. In the present study we have reported, bio synthesis of silver nanoparticles (AgNps) from the nests of the paper wasp, *Ropalidiamarginata* (PE) and mud wasp, *Sceliphroncaementarium* (ME) and confirmed their antimicrobial activities. The AgNps were characterized by UV-Visible spectroscopy, Fourier transform infrared spectroscopy (FTIR), Scanning electron microscope (SEM), Energy dispersive electron spectroscopy (EDAX) and X-ray diffraction (XRD). The AgNps were evaluated for antimicrobial properties both antibacterial and antifungal. The board peaks were obtained at 389 nm for PE and 400 nm for ME with UV-Vis surface plasmon resonance studies confirmed that the synthesized nanoparticles are AgNps. The FTIR data showed prominent peaks for both which indicated the presence of phenolics compounds and proteins in the synthesis of AgNps. Scanning electron microscopic (SEM) studies revealed that the nanoparticles were spherical in shape with size ranging from 0.1 to 0.5 µm for PE and 0.2 to 0.5 µm for ME. EDAX analysis showed 75.48 weight percentage of Ag present in PE and 72.57 % in ME indicated the purity of sample. The AgNps of PE showed potent antibacterial activity against *S. pyogenes, S. aureus, E.coli, K. pneumoniae, B. subtilis, S.paratyphi* and antifungal activity against *C. albicans, T. viride and A. fumigatus.*The PE AgNps produced zone of inhibition of 13 mm against *K. pneumoniae*and 8 mm against *T.viride* at 30µg/ml. The AgNps of ME showed potent antibacterial activity against *S. pyogenes, S.aureus, E.coli, K.pneumoniae, Bacillus subtilis, S. paratyphi* and antifungal activity against *Candida albicans, T. viride, Afumigatus*. The PE AgNps produced zone of inhibition of 12 mm against S*. aureus* and 9 mm against *T. viride* at 30 µg/ml. Pencillin standard drug (10µg) was used as positive control for both bacteria and fungus