

10th International Conference on

EMERGING MATERIALS AND NANOTECHNOLOGY

July 27-29, 2017 Vancouver, Canada

Au, Ag, and TiO₂ green synthesis and applications as antibacterial for both Gram positive and Gram negative strains**Nada E Omer¹, Hiba Omer¹, Manal A Awad², A L Ad-Otaibi¹, M A Almessiere¹ and F Ben Azzouz¹**¹University of Dammam, KSA²King Saud University, KSA

Green nanoparticle synthesized need to be incorporated into nanotechnologies at the source along with medical applications. This work scopes in the context of potential health effects of nanoparticles. Gold nanoparticles were synthesized using biomaterial mix of *Olea europaea* fruit and *Acacia nilotica* extracts, Silver and Titania nanoparticles were synthesized using Lupin bean extract. The formation of the particles was characterized by x-ray Diffraction followed by Zetasizer for measured particles average size 10-100 nm. Energy-dispersive spectrometer (EDS) equipped with scanning electron microscopy illustrated the morphology and elemental analysis for the nanoparticles. Different shapes for the nanoparticles were examined by Transmission electron microscopy (TEM). The three ecofriendly green synthesized Au, Ag, and TiO₂ nanoparticles have shown efficient antibacterial effect towards both Gram-positive and Gram-negative strain which can be very promising for wide variety of applications in nanomedicine.

Biography

Nada E Omer is an Associate Professor of Physics at University of Dammam, KSA. She is teaching undergraduate and graduate students in the Field of Physics and is performing researches using available computer software in material sciences as well as doing experimental research on nano-particle synthesis and its medical applications as well as energy applications

neomar@uod.edu.sa

Notes: