Green Synthesis of Nano Particles by *Oscillatoria cortiana*

Dr. Sadhana Balasubramanian

Assistant Professor, Centre for Research and PG Department of Botany, Thiagarajar College, Madurai-625020, Tamil Nadu, India

Abstract:

Cyanobacteria are procaryotic microorganisms distributed in aquatic environment that involved in the atmospheric nitrogen fixation. Such organisms have an ability to synthesize nano particles in an aqueous culture medium. The current study isolated the *Oscillatoria cortiana* from the paddy field soil and mass cultured under microbiology culture lab. The aqueous extract of *O. cortiana* synthesized silver nano particles and was confirmed by UV-Visible Spectrophotometer, FTIR, SEM-EDX analysis. Synthesized O-AgNPs was tested against entero bacterial pathogens. This green synthesis technology of nanoparticle synthesis from *Oscillatoria cortiana* could be suggested for application in medicine, pharmaceutical field and bioremediation.

Keywords:

Cyanobacteria, *Oscillatoria*, Nano particles and antibacterial activity.