



## Studies of Nickel Phenothiazine Oleate as Biologically Potent Agent

Neha Mathur and Biplab manna\*

Department of Chemistry PNKS Govt. Science and Commerce College, Dausa, Rajasthan, **INDIA**

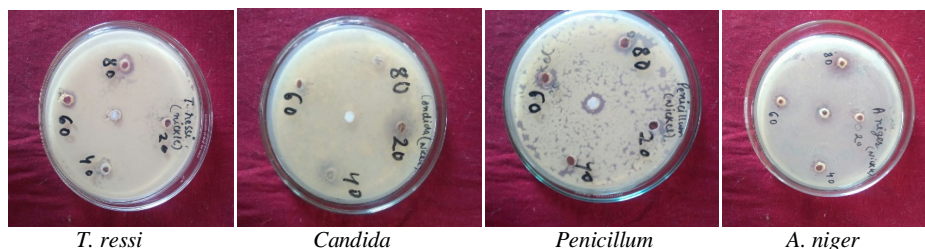
E-mail: [babumanna@gmail.com](mailto:babumanna@gmail.com)

Accepted on 24<sup>th</sup> August, 2018

### ABSTRACT

The solid surfactant of nickel has been derived from oleic acid, and a complex of nickel with tricyclic ligand like phenothiazine containing nitrogen as donor atom has been synthesized and characterized by elemental analysis, IR, NMR and ESR spectroscopy and magnetic moment studies. The magnetic moment studies suggested the dimeric nature of complexes. Spectral studies confirm that complexation has taken place successfully. The results indicate that complex has nonelectrolyte nature and possess octahedral geometry. The antifungal activities of this ecofriendly complex have been studied against *Candida*, *A. niger*, *T. ressi* and *Penicillium*. Antibacterial studies also done against *Staphylococcus*, *Streptomyces*, *E.coli* and *Bacillus*.

### Graphical Abstract



Antifungal activity of Ni-complex on *T. ressi*, *Candida*, *Penicillium* and *A. niger*

**Keywords:** Phenothiazine, Nickel oleate, Antifungal, Antibacterial, Octahedral geometry.