



Antibacterial Evaluation of Novel Salen-Metal Complexes

Ghanasham B. Sathe*, Gauri S. Phadke and Vikram P. Masal

Dapoli Urban Bank Senior Science College, Dapoli, **INDIA**

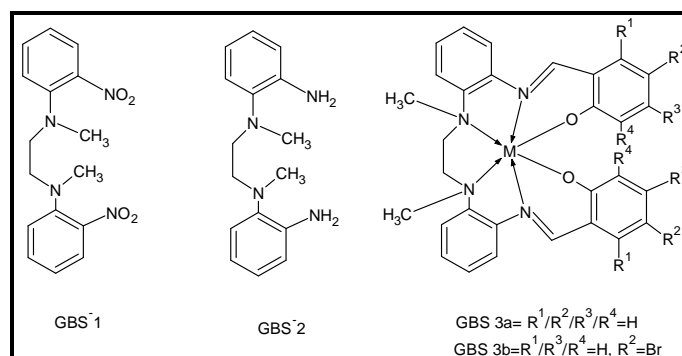
Email: gbsathe47@gmail.com

Accepted on 24th August, 2018

ABSTRACT

Two salen type Schiff bases were synthesized and characterized by using physical methods. Then their metal complexes were formed. The metals selected for the preparation of complexes were nickel, zinc, copper, cadmium, manganese and cobalt. Hence, in total 12 metal complexes were synthesized and screened for antibacterial activity against some clinically important bacteria, such as *Aspergillus niger*, *Pseudomonas aeruginosa*, *Proteus vulgaris*, *Staphylococcus aureus*, *Escherichia coli* and *Salmonella typhi*. The in-vitro antibacterial activity was determined by the agar cup technique using Dimethyl formamide as solvent. The Schiff bases showed considerably greater activity than their metal complexes; the metal complexes showed differential effects on the bacterial strains investigated and the solvent used, suggesting that the antibacterial activity is dependent on the molecular structure of the compound and the bacterial strain under consideration.

Graphical Abstract



Metal Complex

Keywords: Salens, Schiff base, metal complexes, antibacterial activity.