



Synthesis, Characterization and Antimicrobial activity of Novel 5-Amino-2-Mercapto-1,3,4-Thiadiazole Derivatives and their Metal Complexes

Madavi Sunitha, K. SJyothi, S. B. Megha, Azgar Pasha,
Golla Ramesh and M. K. Shivananda*

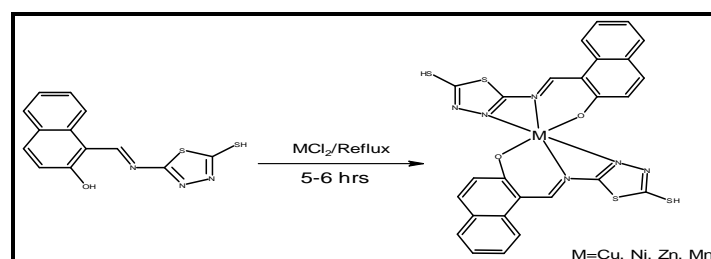
Department of Chemistry, UCS, Tumkur University, Tumkur-572 103, Karnataka, **INDIA**
Email: shivanmk@yahoo.com, sanny.iit@gmail.com

Accepted on 10th March, 2019

ABSTRACT

Transition metal complexes of Schiff's bases were playing an essential role in the development of coordination chemistry. Thiadiazole moiety is present as a core structural component in many drug categories such as antimicrobial, anti-inflammatory, antiviral, analgesic and antitubercular agents etc. The potent activity and various types of biological activities of thiadiazole and their derivatives established them as pharmacologically and biologically important scaffolds in heterocyclic chemistry. The metal complexes of Schiff's bases were studied extensively because of their attractive chemical, physical properties and their wide range biological applications. Hence Schiff base with 5-amino-2-mercapto 1,3,4-thiadiazole derivatives and their Cu(II), Ni(II), Mn(II) and Zn(II) metal complexes were prepared and characterized by elemental analysis, ¹H-NMR, ¹³C-NMR, IR. using these Schiff base ligand.

Graphical Abstract



Keywords: Schiff's bases, Thiadiazole, Antimicrobial, Antitubercular agents, Metal complexes.