

## **SYNTHESIS, CHARACTERIZATION, THERMAL, ANTICANCER AND DNA BINDING PROPERTIES OF Co(II), Ni(II), Cu(II), Cd(II) AND Zn(II)**

### **COMPLEXES WITH SCHIFF BASE**

**ASHA M S<sup>1</sup>, BUSHRA BEGUM A<sup>2</sup>, REKHA<sup>3</sup>, VASANTH KUMAR B C<sup>4</sup> & SHAUKATH ARA KHANUM<sup>5</sup>**

<sup>1,2,5</sup>Department of Chemistry, Yuvaraja's College(Autonomous), University of Mysore, Mysore, Karnataka, India

<sup>1</sup>St. Philomena's College Bannimantap Mysore, Karnataka, India

<sup>3</sup>Department of Studies in Biotechnology, JSS College of Arts, Commerce and Science, Mysore, Karnataka, India

<sup>4</sup>Department Chemistry, University of Mysore, Mysore, Karnataka, India

### **ABSTRACT**

A series of metal complexes of Co(II), Ni(II), Cu(II), Cd(II) and Zn(II) were synthesized with newly prepared ligand. This ligand was prepared by the condensation of hydrazide with 2-chloro benzaldehyde. The resulting complexes were characterized by elemental analyses, spectroscopic data i.e. IR, UV, mass, molar electric conductivity as well as magnetic measurements. The complexes were square planar and octahedral in nature. Thermal studies of the complexes were also reported. Metal complexes exhibited DNA binding, cleavage and anticancer activities which were significantly better than the ligand.

**KEYWORDS:** Schiff Base, Thermal, Angiogenesis, DNA Binding, Metal Complexes