X-RAY DIFFRACTION STUDIES OF SOME TRANSITION METAL COMPLEXES OF AMINO ACID SCHIFF BASES OF ANTHRACENE CARBOXALDEHYDE

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ABSTRACT

X-ray diffraction studies of anthracene carboxaldehyde -amino acid - metal complexes were carried out. The arrangement of atoms and its spacing can be accurately determined using the results of these studies. The diffraction pattern was obtained using Bruker D5005 AXS X-ray diffractometer. Powder lines were recorded for 2θ values from 4° to 60°. The four complexes studied were found to be orthorhombic in nature. The density values of each complexes were calculated and found to be in good agreement with values obtained using experiments. The metal ion and ligand show a stochiometry of 1 : 2, except Ag (I) complex. In the case of silver complex metal to ligand ratio was 1:1.

KEYWORDS: X-Ray Diffraction, Crystalline Materials, Ligand, Stochiometry & Powder

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