APPENDIX

LIST OF PUBLICATIONS

Abstracts

1. Formation of Schiffbase complexes: Part II - Cu(II) & Ni(II) complexes of Schiffbases derived from 2-hydroxybenzophenone.
Indian J. Chem., 13, 928 (1975).

Complexes of Cu(II) and Ni(II) with the Schiffbases derived from 2-hydroxybenzophenone and its methyl derivatives have been prepared by treating the bis-keto complexes, viz. bis(2-hydroxybenzophenonato)Cu(II) and Ni(II), with ammonia and also by reacting the metalamine complex with the ketones. Ethylenediamine and propylenediamine Schiffbase complexes have also been prepared from the bis-keto complexes and by amine-exchange reaction of the imine complexes. The spectral and magnetic properties of the compounds have been studied.

2. Studies on some mixed Schiffbase complexes: Part III.
J. Indian Chem. Soc., 52, 1041 (1975).

Preparation and properties of some mixed ligand complexes of the type MLL', where M = Cu(II) or Ni(II); LH = 2-OH-1-naphthaldehyde and L'H = 2-OH-benzophenone or its methyl derivatives are described. MLL' on being treated with ammonia, ethylenediamine or propylenediamine result in the formation of mixed Schiffbase complexes.

Transimination reaction of mixed imine Schiffbase complexes with ethylenediamine or propylenediamine have also been studied. The structure of the complexes have been diseussed on the basis of elemental analysis, magnetic moments, infrared, nmr and electronic spectral data.

3. Studies on some mixed Schiffbase complexes: Part II. Indian J. Chem. (In Press).

Mixed ligand complexes of the type MLL' where M = Cu(II) or Ni(II); LH = Salicylaldehyde and L'H = 2-hydroxybenzophenone or its methyl derivatives, have been prepared. The mixed ligand complexes (MLL') on being treated with ammonia result in the formation of mixed imine complexes containing one molecule of salicylaldimine and another of 2-hydroxybenzophenonimine. The above Schiffbase complexes can also be prepared by treating metal amine complexes with one equivalent each of salicylaldehyde and 2-hydroxybenzophenone or its methyl derivatives. On reaction of mixed imine Schiffbase complexes with ethylenediamine or propylenediamine, amine exchange takes place and the complexes of new Schiffbase are formed where the diamines have salicylaldehyde condensed at one end and 2-hydroxybenzophenone or its methyl derivatives condensed at the other end. The analytical data, spectra and magnetic moment of the compounds have been obtained and are discussed.

4. Reactions of hydroxyalkylamines on some bis and mixed Schiffbase complexes of Copper(II), Bull. Chem. Soc. Jap., (In Press).

Reactions of hydroxyalkylamines have been carried out with bis and mixed Schiffbase complexes of Cu(II). In these reactions one of the ligands combines with the hydroxyamine forming a tridentate ligand whereas another is removed. From the resulting complexes in the case of mixed Schiffbase complexes it is observed that the tendency to form the Schiffbase is in the order 2-OH-benzophenone $\simeq$ 2-OH-1-naphthaldehyde $>$ salicylaldehyde $>$ 2-OH-acetophenone. The compounds have been characterized by analytical, spectral and magnetic studies.

5. Reactions of hydroxyalkylamines on some bis and mixed Schiffbase complexes of nickel(II), J. Indian Chem. Soc., (communicated).

Reactions of monoethanolamine and isopropanolamine have been carried out on the binary and mixed Schiffbase complexes of nickel(II). It is observed that the hydroxyalkylamines condense with both the ligand molecules. Though the resulting Schiffbases have three co-ordinating atoms they behave as a bidentate ligand, the alcoholic -OH remaining free. These complexes have been characterized by analysis, magnetic and spectral studies.

6. Nitration and Bromination of some Binary and Mixed Schiffbase Complexes, Indian J. Chem. (Communicated).