

APPENDIX

Papers published or accepted for publication :

Abstracts :

1. Disproportionation in some octahedral nickel complexes;

Indian J.Chem., Vol.7, pp. 927-928 (1969).

Ni-bisethylenediamine complex on treatment with organic tertiary bases like pyridine, and β - and γ -picolines, instead of providing mixed ligand complexes, affords products which can only be obtained by a disproportionation reaction. With α -picoline no disproportionated product is formed due to steric hindrance of CH_3 group at 2-position.

2. Studies in some Ni(II) complexes ; J.Ind.Chem.Soc., Vol.48, No. 3, pp. 233-236 (1971).

Adduct of bis-oxine nickel with pyridine, β - and γ -picoline have been prepared. Ni(II) complexes of the above bases with nitrate, glycollate and lactate as anion have also been isolated. The compounds have been analysed and structures have been suggested on the bases of magnetic and spectral studies.

3. A study of ligand exchange in some nickel complexes;

J.Inorg.Nucl.Chem., Vol.33, 2, (1971).

The formation constants of nickel complexes of catechol and pyrogallol have been determined by Irving-Rossotti method and compared with that of nickel-ethylenediamine complex. On treating nickel bis and tris ethylenediamine complexes with catechol and pyrogallol, ethylenediamine is replaced. The resulting solids have been analysed and characterised by magnetic and spectral studies.

4. Studies in some metal-phenolic acid chelates; Indian J.Chem., Vol.8, pp. 835-837 (1970).

Reactions of gallic and protocatechuic acids ligands with ethylenediamine complexes of Ni(II) and Cu(II) result in the replacement of ethylenediamine. The resulting solids have been analysed and characterised. In the case of Ni(II) ethylenediamine remains in the outer sphere as the ion $(\text{enH}_2)^{2+}$. No such behaviour is exhibited by Cu(II). Replacement of Ni(II) by Cu(II) in gallate complexes confirms greater stability of copper complexes.

5. Studies in some heterochelates of Cu(II) and Ni(II);

Ind.J.Chem., (in press).

The complexes of the type [MLA] where M = copper or nickel and L = catechol, 2,3-dihydroxynaphthalene, pyrogallol and A = ethylenediamine or propylenediamine have been prepared by substitution reactions. The resulting compounds have been characterised by analytical, magnetic, visible and I.R.spectral studies.