APPENDIX

LIST OF PUBLICATIONS

List of Publications :

Paper presented at 29th International Conference on Co-ordination Chemistry, Switzerland, 19-25 July 1992, Abs. No. 220.

Fungicidal and Bactericidal studies of Cu(II), Ni(II) and Zn(II) mixed Schiff base complexes.

C. R. Jejurkar and V. K. Patel.

1, Synthesis of mixed Schiff base complexes of Cu(II) and Ni(II) and their spectral, magnetic and Antifungal studies.

V.K.Patel, (Miss)A. M. Vasanwala and C.R.Jejurkar, Indian J. of Chemistry, Vol. 28A, 1989, 719-721.

Abst.:

Mixed ligand Schiff base Complexes of Cu(II) and Ni(II) derived from 7-formyl 8 Hydroxy Quinoline and 2 hydroxy 4-methoxy benzophenone, 2 hydroxy 4 methoxy acetophenone, 2 hydroxy 1 acetophenone or 1 hydroxy 2 acetophenone and ethylene diamine have been synthesised and their spectral, magnetic and antifungal studies carried out.

2. Binuclear Schiff base complexes of Cu(II) and Ni(II).

P.D. Narkhede, V. K. Patel and C. R. Jejurkar.

J. of M.S.University of Baroda, Vol. 37-38, (1990-91) No. 3, pp. 143-145.

Abst.:

The binuclear mixed Schiff base complexes of Cu(II) and Ni(II) derived from L_1 = 2,4 dihydroxy - N-(2-Carboxy-phenyl) acetophenomino and L_2 = 2 hydroxy - N(2-carboxy-phenyl) Acetophenomino or L_3 = 2 carboxy phenyl-N-(7-formyl 8 hydroxy Quinoline)- imino have been synthesised and their spectral, magnetic and antibacterial studies carried out.

3. Mixed Schiff base complexes of Cu(II) and Ni(II) and their Applications as antibacterial agents.

V. K. Patel and C. R. Jejurkar

J. of M. S. University of Baroda, Vol. 39-40, (1992-93), No.3, pp. 77-84.

Abst.:

Mixed Schiff base complexes of Cu(II) and Ni(II) containing Schiff bases derived from 7 formyl 8 hydroxy Quinoline or 2 hydroxy 1 Naphthaldehyde and Aniline

or 2 amino pyridine or 2 amino thiophen were synthesised and characterized by elemental analysis, spectral and magnetic studies. The complexes were also studied for their antibacterial activity.

4. Fungicidal and Bactericidal studies of Cu(II), Ni(II) and Zn(II) mixed Schiff base complexes.

C. R. Jejurkar and V. K. Patel

Indian J. of Chemistry, (Communicated 1993).

Abst.:

Fifteen organic mixed Schiff base ligands were synthesised from 7-formyl 8-hydroxy quinoline and ethylactoacetate or 0-hydroxyacetophenone or 2-hydroxy 4-methoxy acetophenone or 2-hydroxy acetonaphthone or 2- amino 5- chloro benzophenone and using prolpylene-diamine or p-phenylindeamine or benzidine as primary amines.

Forty five mixed Schiff base complexes of Cu(II), Ni(II) and Zn(II) were prepared using above mentioned ligands. The isolated mixed Schiff base complexes were characterised by elemental and thermal analysis. Conductometric, electronic spectral, I.R. spectral and magnetic studies were also carried out.

The synthesised ligands and their metal complexes were screened for fugicidal and bactericidal activities using Alternaria triticinia, puccina recodita, E.Coli (Gram -ve) and Staphyloccocus coagulase (Gram +ve) as test organisms.

The methods used to study biological activities were Agarplate technique and colony growth measurements.

From the physicalmeasurements data, the complexes found to possess distorted octahedral geometry. All the complexes showed presence of coordinated water, which was confirmed by I.R. and TGA analysis. p-phenyline diamine and benzidine complexes found to be binuclear.

Both the mixed base ligands and their metal complexes showed potential activity. The activity found to increase on complex formation.

A few generalisation regarding the structure - activity relaltionship had been tried. The persence of halogen and methoxy group in complexes were found to enhance the activity. The increase of number of aromatic rings had little effect on activity of the complexes. The order of activity was found to be Zn>Cu>Ni.