

Dr. MANJU SEBASTIAN

Assistant Professor

College Address

Dept. of Chemistry
St. Mary's College,
Thrissur,
INDIA
Post 680 020
Ph : 91-487-233485
E-mail:
manjus123@gmail.com

Experience in Higher Education

2010 - Present : Assistant Professor, St. Mary's College, Thrissur

Research grants received

UGC Sponsored Minor research project (completed):
on the topic "Quinoxaline complexes: synthesis, characterization
and anticancer activity studies"

Education

Degree :

B.Sc

Institution :

Kannur University

Year :

2002

Major Field :

Chemistry

Degree :

M.Sc

Institution :

Kannur University

Year :

2004 (2nd Rank)

Major Field :

Chemistry

Degree :

Ph.D

Institution :

CUSAT, Kochi

Year :

2011

Experience / Skills

- Experienced in handling IR Spectrometer, UV-Vis Spectrometer, TG analyser, AAS, Surface area analyser, parr reactor, GC and HPLC.
- Expertise in carrying out various spectroscopic analyses and skilled in the interpretation of ¹H & ¹³C NMR, ESI-MS, IR, UV, TG-DTA-DSC, HPLC and EPR results.
- Expertise in various simulation programs and softwares used for the interpretation of results.
- Familiar with crystallographic softwares like ORTEP –III, MERCURY, WINGX 1.62, PLATON etc.
- Skilled in common chemistry tools like Chemdraw, ACD Labs Chems sketch etc.

Selected Research Activities

- Synthesis and characterization of transition metal complexes
- Catalysis by transition metal complexes
- Biological activity studies of transition metal complexes

Selected Publications

A. Papers presented in symposia

- Participated and presented a paper in the International Conference on “Materials for the Millennium, MATCON-2007” held at the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi during 1-3 March 2007.
- Participated and presented a paper in the International Conference on “Materials for the Millennium, MATCON-2010” held at the Department of Applied Chemistry, Cochin University of Science and Technology, Kochi during 11-13 January 2010.
- Participated and presented a paper in the 22nd Kerala Science Congress held at KFRI, Peechi during 28-31 January 2010.
- Participated and presented a paper in the National Seminar on Recent Advances in Inorganic and Nano Chemistry, to be held at Department of Inorganic Chemistry, Madurai Kamaraj University, Madurai during 29-30th, March 2010.
- Participated and presented a paper in the 26th Kerala Science Congress held at KVASU, Pookode, Wayanad during 28-31 January 2014.
- Presented a paper in UGC Sponsored National Seminar on Frontiers in Green Chemistry held at St. Mary's College, Thrissur on 24, 25th July 2014
- Presented a paper in UGC Sponsored National Seminar on Recent Advances in Chemistry held at St. Mary's College, Thrissur on 19th July 2015

B. List of Research Publications

- Template synthesis and spectral characterization of some Schiff base complexes derived from quinoxaline-2-carboxaldehyde and L-histidine, **Manju Sebastian**, V. Arun, P.P. Robinson, P. Leeju, G. Varsha, Digna Varghese and K.K.M. Yusuff; *Journal of Coordination Chemistry*, 64 (2011) 525-533.
- Synthesis, structural characterization and catalytic activity study of Mn(II), Fe(III), Ni(II), Cu(II) and Zn(II) complexes of quinoxaline-2-carboxaldehyde-2-amino-5-methylphenol: Crystal structure of the nickel(II) complex, **Manju Sebastian**, V. Arun, P. P. Robinson, Annu Anna Varghese, Rani Abraham, E. Suresh, K.K.M. Yusuff, *Polyhedron*, 29 (2010) 3014-3020.
- Metal-induced rearrangement of benzothiazoline ring: Synthesis and characterization of transition metal complexes of an ONS-donor Schiff base; **Manju Sebastian**, V. Arun, P. P. Robinson, K.K.Mohammed Yusuff, *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*, 40 (2010) 541-547.
- Synthesis, characterization and the crystal structure of a new Cobalt(II) Schiff base complex with quinoxaline-2-carboxaldehyde-2-Amino-5-methylphenol; **Manju Sebastian**, V. Arun, P.P. Robinson, P. Leeju, Digna Varghese, G. Varsha and K.K.M. Yusuff; *Journal of Coordination Chemistry*. 63 (2010) 307-314.
- Hydrogen Bonded Triple Helical Structure of 3-Hydroxyquinoxaline-2-carboxaldehyde-4-aminoantipyrine; V. Arun, G. P. Preetha, **Manju Sebastian**, A. R. Biju and K. K. M. Yusuff, *Journal of Chemical Crystallography*. 41 (2011) 1013–1017.
- Oxidation kinetics of nickel nano crystallites obtained by controlled thermolysis of diaqua- bis(ethylenediamine) nickel(II) nitrate; P. Robinson, V. Arun, **Manju Sebastian** and K K. M. Yusuff, *Journal of Thermal Analysis and Calorimetry*, 100 (2010) 733-740.

- Two new fluorescent heterocyclic perimidines: first syntheses, crystal structure, and spectral characterization; G. Varsha, V. Arun, P. P. Robinson, **Manju Sebastian**, Digna Varghese, P. Leeju, V. P. Jayachandran, K. K. M. Yusuff, *Tetrahedron Letters* 51 (2010) 2174–2177.
- A novel fluorescent bisazomethine dye derived from 3-hydroxyquinoxaline-2-carboxaldehyde and 2,3-diamino maleonitrile; V. Arun, P.P. Robinson, **Manju Sebastian**, P. Leeju, G. Varsha, V. Digna, K.K.M. Yusuff; *Dyes and Pigments*, 82 (2009) 268–275.
- Ni(II) and Ru(II) Schiff base complexes as catalysts for the reduction of benzene; V. Arun, N. Sridevi, P.P. Robinson, **S. Manju**, K.K.M. Yusuff; *Journal of Molecular Catalysis A: Chemical* 304 (2009) 191–198.
- N,N'-Bis[(E)-quinoxalin-2-ylmethylidene]ethane-1,2-diamine; Digna Varghese, V. Arun, **Manju Sebastian**, P. Leeju, G. Varsha and K. K. M. Yusuff; *Acta Crystallographica*, E65 (2009) o435.
- (Z)-2-Amino-3-[(E)-benzylideneamino]but-2-enedinitrile; G. Varsha, V. Arun, **Manju Sebastian**, P. Leeju, Digna Varghese and K. K. M. Yusuff; *Acta Crystallographica* E65 (2009) o919.
- N-[(E)-Quinoxalin-2-ylmethylidene]-1H-indazol-5-amine; P. Leeju, V. Arun, **Manju Sebastian**, G. Varsha, Digna Varghese and K. K. M. Yusuff; *Acta Crystallographica* E65 (2009) o1981.
- Two novel bisazomethines derived from quinoxaline-2-carboxaldehyde; Digna Varghese, V. Arun, P.P. Robinson, **Manju Sebastian**, P. Leeju, G. Varsha and K.K.M. Yusuff, *Acta Crystallographica* C65 (2009) o612-o614.