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Department of Chemistry
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ACADAMIC QUALIFICATION

Doctor of Philosophy in Chemistry, 1999, Annamalai University

Master of Philosophy, 1996, Annamalai University

Master of Science, 1995, Annamalai University

Bachelor of Science, 1992, University of Madras

Ph. D THESIS TITLE

Synthesis and Characterization of Binuclear Copper(II), Nickel(II) and Oxovanadium(IV) Complexes of Schiff bases

TEACHING POSITION

1, April 2010 - Present : Assistant professor

Department of Chemistry

Periyar University, Periyar Palkalai Nagar, Salem, Tamil Nadu, India.

24, November 2004 - 31, March 2010 : Lecturer

Department of Chemistry

Periyar University, Periyar Palkalai Nagar, Salem, Tamil Nadu, India.

03, February 1999 – 23, November 2004 : Lecturer

Department of Chemistry

Kandaswami Kander's College,

(Govrenment Aided) P-velur, Namakkal Tamil Nadu, India

ADMINISTRATIVE POSITION

- Member -Syndicate, Periyar University, Salem
- Senate Member Periyar University, Salem, Tamil Nadu
- Members in various committees.

EXPERIENCE

- 1. *Research*: 13 years (post PhD)
- 2. Teaching: PG-13 Years, UG-5 Years

FIELDS OF SPECIALISATION

- Coordination Chemistry
- Bio- Inorganic chemistry
- Supramolecular Chemistry
- Pharmaceutical Drug discovery
- Biomaterials

ACADEMIC MILESTONE

- Member in Board of Studies in Chemistry, Periyar University, Salem.
- Life member in Indian Science Congress Association
- Life member in Indian Council of Chemists

ABROAD VISIT

- Visited Kaohsiung University, Kaohsiung, Taiwan to attend the 5 th Asian Biological Inorganic Chemistry Conference, November 1-5, 2010. Received Travel Award from 5th Asian Biological Inorganic Chemistry Conference, held at Kaohsiung, Taiwan, November 1-5, 2010.
- Visited Dubai & Abudhabi, to attend the 3rd International Conference conducted by Indian Council of Chemist on June 10-14, 2014

Research Activities

 Binucleating Schiff bases are important class of ligands due to their synthetic flexibility, their selectivity and sensitivity towards the central metal atom, structural similarities with natural biological substances and also due to presence of imine group which imports in elucidating the mechanism of transformation and resamination reaction in biological process.

- In view of these observations, Our group has established in the area of Bioinorganic research, which includes synthesis of binuclear Schiff base metal complexes and their applications in DNA interaction and Antimicrobial activity.
- Mononuclear complexes behaves as ligands, which have free coordination sites that can bind the second metal of the same or different kind, is very useful and successful. Our group has synthesized homo/ hetero trinuclear Schiff base metal complexes and study their DNA interaction and Biological Activity.
- Moreover one group has concentrated in synthesizing macrocyclic complexes and its various applications in Supramolecular Chemistry.
- Research in various dynamics like antioxidant, anti-inflammatory, anticancer, cytotoxic and catalytic activities have been focused now.

STUDENTS ACHIEVEMENTS

- 1. G. Athithya awarded 1st prize in oral presentation in CSIR Sponsored National level Conference on "Recent Advances in Metalloorganic Chemistry", conducted by Department of Chemistry, Periyar University, Salem, on October 16th and 17th 2008.
- 2. Best Research Paper award to Ekamparam Akila, Markandan Usharani, Sampath Vimala, and Rangappan Rajavel by Chemical Science Review and Letters, 2013.
- 3. E. Akila awarded 1st prize in oral presentation in National seminar on Recent trends in Biotechnology and Chemistry (RTBC-2013) held on 25 September 2013, organized by Department of Biotechnology and Chemistry, Jairam Arts and Science College, Salem.

No. of Projects completed : 01 UGC Major Research Project

02 DST Inspired Fellowship

No. of Ongoing Projects : 01 (RGNF Fellowship-01)

No. of Seminars / Conferences conducted : 02 (International: 01, National: 01)

No. of M.Phil. Produced : 32 No. of Ph.D. Awarded : 10

No. of Ph.D. scholars guiding : 10 (Full Time: 05, Part Time: 05)

No. of Papers Published : 51 (International: 49, National: 02)

No. of Papers Presented : 85(International: 39, National: 46)

No. of invited lectures delivered : 04

Reviewer for journals : 03

PROJECTS SANCTIONED

Grant agency	Title of the project and Reference number	Duration Year	Percentage of time devoted / being devoted/to be devoted, in months	Amount in lakh Rs.	Status
UGC (Major)	Synthesis, Spectroscopic studies of Binuclear Schiff base Metal Complexes of Cu(II),Ni(II) and VO(IV) and their Application in DNA Binding, Cleavage and Antimicrobial Activity. (F.No.37-299/2009(SR) Dt. 31.3.2010)	2010- 2013	36 months	7,10,816/-	Completed
CSIR (Major)	Development of Efficient, stable and selective homo- and hetero- binuclear Ni(II), Pd(II) and Pt(II) Schiff base complexes as biologically active and potential agents	-	36 months	30,00,000	Communicated
ICMR	Investigation of Nanobinuclear Schiff base Metal Complexes and their Biomedical Applications	-	36 months	25,71,450	Communicated

INTERNATIONAL CONFERENCE ORGANIZED

 Convener in UGC, CSIR, DST, DRDO, INSA, BRNS and TNSCST Sponsored International Conference on Biological Inorganic Chemistry (ICBIC-2013) held on 20-22 Feb 2013.

NATIONAL CONFERENCE ORGANIZED

• **Convener** in UGC and CSIR Sponsored National level Conference on Recent Advances in Metalloorganic Chemistry, 16 & 17 Oct 2008.

SCIENTIFIC MILESTONE

- Peer Reviewer for International Journal of *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*.
- Reviewer for Applied Biochemistry and Biotechnology.
- Reviewer for *Spectrochimica Acta part A*.
- Reviewer for *Bioinorganic Chemistry and Applications*.

Collaboration Details

S.N o	Collaborating Institue/ Laboratories/Industr y	National/In ternational	Name of the collaborating Scientists/ Head with Address/ period of Collaborating	Status Ongoing / complete d	Remarks/ Outcome
1.	Medical University, 2 Dunav St., Sofia 1000, Bulgaria	International	Dr. Irena kostova, Professor Department of Chemistry, Faculty of Pharmacy, Medical University, 2 Dunav St., Sofia 1000, Bulgaria	Ongoing	With his collaboration, our research students are using the facilities for recording spectra of their synthesized materials
2.	Kuvempu University, Jnana Sahyadri, Shankaraghatta-577 451 Shimoga, Karnataka, India.	National	Dr.H. S. Bhojya naik Professor and Chairman Department of Industrial Chemistry Kuvempu University, Jnana Sahyadri, Shankaraghatta-577 451 Shimoga, Karnataka, India. 2011 to till date	Ongoing	Students used their research lab to record DNA interactions
3.	Periyar University, Salem-11, India	Institutional Level	Dr.V.Krishnakumar, Professor and Head, Department of Physics, Periyar Univerity Periyar Palkalai Nagar Salem-11, Tamilnadu, India	Ongoing	Used his lab for synthesizing inorganic materials for optical and magnetic applications
4.	Periyar University, Salem-11, India	Institutional Level	Dr. R. Balagurunathan, Professor and Head, Department of Microbiology, Periyar Univerity Periyar Palkalai Nagar Salem-11, Tamilnadu, India	Ongoing	Research students utilized his laboratory for screening antibacterials and antifungal activity of their synthesized compounds