Name : M. Rajasekaran

**Designation** : Assistant Professor

**Department** : Chemistry

**Date of Joining** : 14/08/2013

Phone No : 9655306156

Email : sekarwin04@gmail.com



Degree	Subject	College / Uuniversity & Place	Year Completed
B.Sc	Chemistry	Thiagarajar College, Madurai	2003
M.Sc	Chemistry	Vivekananda College, Madurai	2005
Ph.D.	Chemistry	Madurai Kamaraj University,Madurai	2011

## **ACADEMIC EXPERIENCE IN OTHER INSTITUTIONS:**

Assisted practical classes for PG and UG degree (chemistry) students as part of teaching assistantship for one year in Vivekananda College, Tiruvedakam west at Madurai (2005-2006).

Assisted in teaching UG Chemistry classes in the Yadava College for ten months (July2011-April 2012).

Assisted in teaching Engineering Chemistry classes in the PSY Engineering College at Sivagangai Dt. (April 2012- Jan 2013).



## **Specialisation in Teaching:**

- 1. Inorganic chemistry
- 2. Bioinorganic chemistry
- 3. Nanochemistry
- 4. Electrochemistry
- 5. Photochemistry
- 6. Applied chemistry
- 7. Analytical chemistry

## **Specialisation in Research:**

Bioinorganic Chemistry – Coordination chemistry

Nanomaterial - Inorganic and Organic nanoparticles

#### **Research Interests:**

- 1. Nanotechnology
- 2. Inorganic Chemistry
- 3. Biological studies like gel electrophoresis, DNA binding and cleavage studies

#### **Technical Skills:**

Electron Spin Resonance (*ESR-JEOL*: *JES-FA200*)

UV-Vis spectrophotometer (JASCO V-550, Shimadzu UV-1600 & Varian Cary 50)

FT-IR spectrophotometer (JASCO 410, Shimadzu FT-IR-8400s)

Viscometer (*Brook-field DV-II + pro*)

Cyclic Voltammetry ((BAS) CV-50W model electrochemical analyzer)

Spectrofluorometer (JASCO FP-6300)

Spectropolarimeter (JASCO J-810) (DNA and Protein interaction)

Electrophoresis (DYY-6C power supplier)

#### **Publications:**

### **Books:**

"Environmental studies" (chapter 3 biodiversity is written by me) ISBN:978-81-929458-1-1 published by Sourashtra College, Madurai.

### **Articles Published in International Journals:**

S.No	Name of the Journal (Nat'l / Int'l)	Paper Title	ISSN	Month & Year
1	Journal of NanoScience and NanoTechnology (indiasciencetech)	Studies on The Enhanced Biological Applications of PVA Loaded Nanocurcumin	2279-0381	Feb 2014
2	Journal of NanoScience and NanoTechnology (American Scientific Publishers)	A Lucid Build-Up of Nanostructured Curcumin, Quercetin and Their Interaction with DNA	1533-4880	July 2014
3	Advanced Materials Letters	pH responsive curcumin/ ZnO nanocomposite for drug delivery	0976-3961	March 2015
4	Journal of Coordination Chemistry	Biological evaluation of redox stable cisplatin/Cu(II)-DNA adducts as potential anticancer agents	1029-0389	2016

### **Conference / Seminar Presentations:**

- State level Workshop on Microscale Experiments in physical chemistry, V.V.
   Vaniaperumal College For Women, Virudhunagar on 29/01/2015.
- 2. National Conference On Recent Developments In Chemistry, SBK College, Aruppukottai on 13 &14/02/2015.
- 3. Modern Trends In Chemistry (MTC-21), Vivekananda College, Madurai on 28/03/2015.

## Paper presented in national/international conferences:

1. Synthesis, characterization and DNA binding studies of cisplatin analogous nanorod metal complexes, **M. Rajasekaran**, J. Annaraj and PR. Athappan. *National Seminar on Nanostructured Materials and Applications*, (NSNMA-2011), Madurai Kamaraj University, Madurai.

- 2. Design and development of bilayer dosage form containing multivitamin and minerals and their controlled release, L. Ramanathan, **M. Rajasekaran** and PR. Athappan. *Recent Advances in Inorganic and Nano Chemistry-2010*, (RAINC-2010), Madurai Kamaraj University, Madurai.
- 3. Synthesis of nanostructured organic drugs and their DNA binding, **M. Rajasekaran**, L. Ramanathan and PR. Athappan. *12<sup>th</sup> International Symposium on Inorganic Ring Systems* (IRIS-12), Goa, Aug 16-21, 2009.
- 4. DNA binding studies of Co(II) and Ni(II) complexes containing natural drugs, **M. Rajasekaran** and PR. Athappan. *International Conference on Coordination and Organometallic Chemistry (ICCOC-2009)*, Bharathiar University, Coimbatore, March 19 & 20, 2009.
- 5. Synthesis, characterization of tetraaza ligand metal complexes and its application, M. Rajasekaran, Leeju and PR. Athappan. *International Conference on Materials for the New Millennium (MAT con 2010) Cochin University of Science and Technology, Kochi, Kerala, India, 11-13 January 2010.*
- Organized an one day intercollegiate symposium on, *Modern Trends in Chemistry*, *MTC-6* as lecturer in chemistry, PG and Research Department of Chemistry, Vivekananda College, Madurai, 4<sup>th</sup> January 2006.

## Lectures / Talks given:

- 1. Delivered a special lecture on "Nanotechnology-nanochemistry" in EMG yadava college at Madurai (2015).
- 2. Delivered a special lecture on "*Pollution removed by chemicals*" (Masu agatrum vethiporul) in **All India Radio** at Madurai (2011).
- 3. Delivered a special lecture on "LaTeX application in Chemistry" in PSY Engineering College at Sivagangai Dt. (2012).

# **Attended Orientation/Refresher/FDP/Other Programme**

S.No.	Topic	Orientation/Refresher/FDP	Name of the College/University	Date/Period
1	FACULTY TRAINING AND MOTIVATION PROGRAM	FDP	CSIR-CECRI, KARAIKUDI	8/09/2014 to 10/09/2014
2	Management of Self- A Holistic approach	One Day Faculty Development Programme	SCAAN & IQAC Sourashtra College, Madurai	29/08/2017
3	104 <sup>TH</sup> ORIENTATION PROGRAMME	ORIENTATION PROGRAMME	BHARATHIAR UNIVERSITY	06/11/2014 to 03/12/2014

# Awards / Fellowships:

UGC-JRF -Meritorious Student Fellowship (2008-2011)

# Other activities / information / academic credentials you would like to mention:

- Additional Examiner in the Board of Chemistry Major & Ancillary Madurai Kamaraj University, Madurai
- 2. Examiner Practical Examinations in various autonomous colleges and Madurai Kamaraj University, Madurai