

Dr. ZAREENA BEGUM I

Personal

Date of Birth March 27, 1981

Place of Birth Pondicherry, India

Address Madras School of Economics,
Behind Gandhi Mandapam Road, Chennai-600 025, India
Tel: 91-44-22300304; Fax: 91-44-2354847;
Mobile: +91-99529 50994 ; Email: zareena@mse.ac.in

EDUCATION:

Indian Institute of Technology (IIT) Roorkee, Roorkee, India

PhD Environmental Science, July 2007

Dissertation Topic: Studies on the Removal of Arsenic - An Environmental Toxicant

Pondicherry Central University, Pondicherry, India

M.Sc. 5 Year Integrated Sciences, April 2003 GPA 8.22/10.0

*CGPA – Cumulative/Semester Grade Point Average (scale of 10)

St. Joseph of Cluny Convent, Pondicherry, India

Higher Secondary, April 1998

81.3%

Matriculation, April 1996

79.5%

HONORS & AWARDS:

- Awarded with research fellowship for the degree of Ph.D by the Ministry of Human Resource and Development (MHRD), New Delhi, India in 2003 for a duration of four years.
- Awarded by the Indian Academy of Sciences, Bangalore for the Summer Research Fellowship, 2003
- Graduate Aptitude Test for Engineering (GATE), Qualified, 2003
- Test for English as Foreign Language (TOEFL), Scored 240/300, Oct. 2002

EXPERIENCE:

Academic Responsibilities:

Associate Professor, Madras School of Economics, from May 2013

Assistant Professor, Madras School of Economics, October 2007-April 2013

Teaching Assignments:

Mathematical Methods, Introduction to Environmental Systems, Environment and Resource Economics, Environmental Policy, Environment and Health and Urban Economics to the MSc students of Madras School of Economics.

Ecology and Environment for the B.Tech students of Indian Institute of Information Technology, Design and Manufacturing, Chennai

Coastal Resource Management for the M.Tech students of Institute of Ocean Management, Anna University, Chennai.

Students from both science/technology and economics backgrounds attend the courses. The students evaluation for various courses since 2007 has always been above 3.6 out of 5.

Institutional Responsibilities:

In-charge of the Centre of Excellence in Environmental Economics website, Madras School of Economics

Member of the editorial team of the newsletters ENVISAGE and GREEN THOUGHTS, published in the Centre of Excellence in Environmental Economics and ENVIS Centre of Environmental Economics in Madras School of Economics.

Involved in revamping the Environmental Information System (ENVIS) website <http://envis.mse.ac.in> and Centre of Excellence in Environmental Economics website <http://coe.mse.ac.in> of Madras School of Economics.

Faculty Co-ordinator for M.Sc General Economics (Anna University batch), Madras School of Economics 2008-2010

Faculty Co-ordinator for M.Sc Actuarial Economics, Applied Quantitative Finance, Environmental Economics (IGNOU batch), Madras School of Economics 2010-12

Girls Hostel Warden, Madras School of Economics July 2011- Present

Contributed two modules of study material for the Post-Graduate Diploma course in Sustainability Science, Indira Gandhi National Open University

Responsibilities Pre-Ph.D :

Indian Institute of Technology, Roorkee (IIT Roorkee), India
Research Scholar & Teaching Assistant, 2003-2007

Teaching responsibility towards courses like **Theoretical and Practical courses on Basic Chemistry, Inorganic, Organic, Analytical Chemistry, Industrial Engineering and Chemistry, Quality Management, Environmental and Industrial Management, Quality Control Technology** for the under-graduate and post-graduate students of Chemistry and BTech students of the Indian Institute of Technology Roorkee, Roorkee, India

Research Accomplishments:

- Developed environmental friendly technique of separating, removing and recovering various toxic and precious elements from different environmental sites ranging from natural ores to industrial effluents to ground water and drinking water using a variety of remedial techniques like solvent extraction, adsorption, membrane filtration.
- Designed a scheme for the removal of the toxin arsenic along with the quantitative recovery of other precious elements like copper, lead, mercury, bismuth, antimony, nickel and selenium from different industrial effluents, especially from electrolytic solutions and complex matrices.

- Developed a water purifier which could be applied in real-time application for the decontamination of arsenic from groundwater, drinking water, industrial effluent and from seawater using extractant-impregnated fibrous supports, silica gel and supported liquid membranes.

Description of Activities:

- Excellent handling ability of many analytical instruments.
- Excellent knowledge in scientific communication and presentation skills

SPONSORED PROJECTS:

Associated with the “Economy-wide impacts of pollution in India – Meta-Analysis”, project funded by Ministry of Environment and Forests, Government of India, **October 2010- Present**.

Associated with the “Trade and Environment: India’s Exports of Textile and Textile Products and Environmental Requirements”, project funded by the Ministry of Environment and Forests, Government of India: **July 2008 - June 2010**.

Associated with the “Wood Balance Study for Tamil Nadu”, project funded by State Forest Research Institute, Tamil Nadu: **June 2008 – June 2009**.

Associated with the “Economics of Municipal Solid Waste Management in Tamil Nadu: A State Level Case Study”, project funded by Central Pollution Control Board: **October 2007- March 2009**.

PUBLICATIONS / PROJECT REPORTS:

“Trade and Environment: India’s Exports of Textile and Textile Products and Environmental Requirements”, Research Report submitted to the Ministry of Environment and Forests, Gol, January 2011.

‘Wood Balance Study of Tamil Nadu’, Research Report submitted to State Forest Research Institute, Tamil Nadu, June 2009.

‘Economics of Municipal Solid Waste Management in Tamil Nadu – A State Level Case Study’, Research Report submitted to Central Pollution Control Board, New Delhi, March 2009.

‘Resurvey to determine the status of teaching and research in Environmental Economics in various institutions of India’, report submitted to the Ministry of Environment and Forests, Gol, February 2008

PUBLICATIONS:

Journal Publications:

Zareena Begum Irfan (2012), ‘Arsenic Contamination in Water: A Conceptual Framework of Policy Options with particular reference to Bengal Delta Basin’, *International Journal of Hydrology Science and Technology*, 2(4), 391-401

Bina Gupta and Zareena Begum Irfan (2012), ‘Equilibrium and Kinetic Studies for the Adsorption of Arsenic from aqueous medium using Cyanex 301- Impregnated Natural and Synthetic Fibrous Supports’, *Interdisciplinary Environmental Review*, 13 (2/3), 202-219

Zareena Begum Irfan, Bina Gupta and Tandon, S. N., (2012), 'Removal of arsenic from anthropogenic aqueous media: an analytical review with particular reference to solvent extraction technique', *Interdisciplinary Environmental Review*, 13 (2/3), 127-138

Zareena Begum Irfan and Uvaneswari, (2012), 'Determination of the Cost-Effective Adsorbents to Remove Toxic Metal Pollutants from Industrial Waste Water', *International Journal of Social Science and Interdisciplinary Research*, 1(4), pp: 19-25, ISSN online: 2277 3630

Zareena Begum Irfan and Vibha Sankar, (2012), 'Assessment of Health Impacts on Residents Living on the Banks of the Buckingham Canal, Chennai', *International Journal of Social Sciences and Interdisciplinary Research*, 1(3), pp: 16-27, ISSN online: 2277 3630

Zareena Begum Irfan and Dhriti Mirpuri, (2012), 'Valuing the Environmental Status of an Agricultural Heritage: A Case Study of Kapaleeshwar Temple, India', *International Journal of Social Sciences and Interdisciplinary Research*, 1(3), pp: 37-45, ISSN online: 2277 3630

Zareena Begum I (2011), "Environmental Pollution and Public Health: The Socio-Economic Analysis of the Global Drivers of Change", Print ISBN: 978-1-4244-9184-1, DOI: [10.1109/RSTSCC.2010.5712791](https://doi.org/10.1109/RSTSCC.2010.5712791), *IEEE Xplore*, pp: 19-24

Zareena Begum I (2011), "Safer building practices to deal with earthquakes: Challenges and Lessons learned from the South Asian countries", *Indian Journal of Science and Technology*, Vol. 4, Issue 3, pp: 219-225.

Zareena Begum I (2011), "Status and causes for the change in the concentration of natural marine wealth – Coral Reefs" *Indian Journal of Science and Technology*, Vol. 4, Issue 3, pp: 351-358.

Bina Gupta and **Zareena Begum I** (2008), Separation and Removal of Arsenic from Metallurgical Solutions Using Bis(2,4,4-trimethylpentyl)dithiophosphinic acid as Extractant, *Separation & Purification Technology*, 63(1), 77-85.

Bina Gupta, **Zareena Begum I** and Garima Rajput (2008), Equilibrium and Kinetic Studies for the Adsorption of Mn(II) and Co(II) from aqueous media using Agar-Agar as Sorbent, *Chemical Engineering Communications*, 195 (10), 1200-1212

Zareena Begum I and Bina Gupta (2007), Removal of Arsenic from natural water sources using Cyanex 301-Impregnated Adsorbents through Column Mode of Operation, *Water Research*, 7(3), 212-226

Zareena Begum I (2007), Decontamination of Arsenic from natural water using supported liquid membrane containing Cyanex 301 as carrier, *Environmental Science & Technology*, 15(4), 382-396

Bina Gupta, Niti Mudhar, **Zareena Begum I** and Indu Singh (2007), Extraction and Recovery of Ga(III) from Waste Material using Cyanex 923, *Hydrometallurgy* 87(1-2), 18-26.

Bina Gupta and **Zareena Begum I** (2006), Stabilization of Solvent-Impregnated Resins (SIRs) by coating with Water-soluble Polymer and Chemical Cross-linking and its Application in Mercury Removal, *Journal of Composite Interfaces*, 13(4-6), 487-506

Bina Gupta, Poonma Malik, **Zareena Begum. Irfan** (2006), Recovery of Uranium, Thorium and Zirconium from allanite by extraction chromatography using Cyanex 923-impregnated Chromosorb, *Journal of Environmental Perspectives*, 4(1), 69-81

Bina Gupta, Akash Deep and **Zareena Begum Irfan** (2006), Removal of Cobalt, Nickel and Cadmium from Spent Ni-Cd Battery, *Industrial Engineering and Chemistry Research*, 12(5), 613-629

Technical Reports

Zareena Begum I (2012), 'Arsenic Contamination in Water: A Conceptual Framework of Policy Options', Working Paper No. 64, Madras School of Economics, Chennai

Zareena Begum I (2012), 'Solid Waste Management', *Dissemination Paper for the Ministry of Environment and Forest, Government of India*

Zareena Begum I (2011), 'Arsenic Contamination in Water: Mitigation and Policy Options', *Green Thoughts: CoE Newsletter*, 3(1) pp: 5-10

Zareena Begum I (2010), 'Plastics and Environment', *Dissemination Paper for the Ministry of Environment and Forest, Government of India*

Zareena Begum I (2010), 'Bhopal Gas Tragedy: The Disaster Exported to India', in *ENVISAGE – Newsletter*, Vol 7, No. 2, pp: 2-8

Zareena Begum I (2010), 'Liability and Environmental Damage: The Indian Experience', in *ENVISAGE – Newsletter*, Vol 7, No. 2, pp: 9-10

Zareena Begum I (2009), 'Sustainable Building Rating System', in *ENVISAGE – Newsletter*, Vol 6, No. 2, pp: 9-14

Zareena Begum I (2009), 'Plastic Fantastic', in *ENVISAGE – Newsletter*, Vol 6, No. 1, pp: 2-8

Zareena Begum I (2009), 'Paper or Plastic', in *ENVISAGE – Newsletter*, Vol 6, No. 1, pp: 9

Zareena Begum I (2009), 'Environmental Health', *Dissemination Paper for the Ministry of Environment and Forest, Government of India*

Zareena Begum I (2008), 'Proper sanitation offers health and wealth', in *ENVISAGE Newsletter*, Vol.5, No. 1, pp:2-3

Zareena Begum I (2008), 'Water Supply and Sanitation in Tamil Nadu', in *ENVISAGE Newsletter*, Vol.5, No. 1, pp:13-15

Zareena Begum I (2007), 'Namakkal: Dustbin Free City', in *ENVISAGE – Newsletter*, Vol.4, No. 3, pp:7-8

Master's Level Publications –during M.Sc 5 year Integrated Sciences:

Zareena Begum Irfan (2003), Synthesis and Characterisation of Cu(II)TPP, Cu(II)TPP(NO₂)₂, Ni(II)TPP(NO₂)₂, Zn(II)TPP(NO₂)₂ and H₂TPP(NO₂)₂, Department of Chemistry, **Pondicherry University**, Pondicherry, India

Zareena Begum Irfan (2002), Modeling of Oxygen Activation in Synthetic Metalloporphyrins, Department of Chemistry, Indian Institute of Technology, Kanpur, India

Zareena Begum Irfan (2001), Synthesis of Symmetric and Unsymmetric Porphyrins and its characteristic structural study, Department of Chemistry, Pondicherry University, Pondicherry, India

PAPER PRESENTATIONS IN NATIONAL / INTERNATIONAL CONFERENCES:

- **'Analyzing the Pathways to Improve Tiger Conservation in India'** paper presented at the *Third MSE Faculty Seminar Series* held at Madras School of Economics, January 2013
- **'Poisoning the future: Examining the Adverse Effect of Arsenic on Children's Educational Achievement with an insight on the Quantitative Removal Techniques of Arsenic'** paper presented at *The Science and Economics of the Environment Issues: the Twain Shall Meet* seminar at Madras School of Economics organized in collaboration with Lancaster University Management School on November 19-20, 2012
- **'Poisoning the Future: Arsenic Contamination of Drinking Water Wells and Children's Educational Achievement in Rural West Bengal'**, paper presented in the *Second MSE Faculty Seminar Retreat*, 24-25 March, 2012, Pondicherry.
- **'Arsenic Contamination in Water: A Conceptual Framework of Policy Options with particular reference to Bengal Delta Basin'**, was delivered in the *First MSE Faculty Seminar Retreat*, 20-21 August, 2011, MGM Beach Resort, Chennai.
- **"Environmental Pollution and Public Health: The Socio-Economic Analysis of the Global Drivers of Change"** *International Conference on "Recent Advances in Space Technology services and Climate Change-2010"* held from November 13-15, 2010 in Sathyabama University organized by Sathyabama University in association with Indian Space Research Organisation (ISRO), Department of Space, Government of India, Bangalore & IEEE.
- **"Status and causes for the change in the concentration of natural marine wealth – Coral Reefs"** *International Conference on Global Environment and its Sustainability: Implications and Strategies* held on November 7, 2010 in Vivekananda College, Chennai organized by Indian Society for Education and Environment in association with Vivekananda College, Chennai & Presidency College, Chennai
- **"Safer building practices to deal with earthquakes: Challenges and Lessons learned from the South Asian countries"** *International Conference on Global Environment and its Sustainability: Implications and Strategies* held on November 7, 2010 in Vivekananda College, Chennai organized by Indian Society for Education and Environment in association with Vivekananda College, Chennai & Presidency College, Chennai
- **'A Report on the arsenic pollution caused at the industrial sites of Tamil Nadu, India'** *7th International Science Conference on the Human Dimensions of Global Environmental Change, "Social Challenges of Global Change" (IHDP Open Meeting 2009)*, 26-30 April, 2009, Bonn, Germany
- **'Removal of As(III) from Aqueous Water Stream using Cyanex 301-Impregnated Natural and Synthetic fibers'**, *International Groundwater Conference, IGC-2007*, Feb 2007, Coimbatore, Tamil Nadu, India

- **'Removal of As(III) from the Aqueous Stream using Cyanex 301 Impregnated Silica Gel by Batch and Column Operation Mode'**, *National Conference on Eco-, Sono-, and Nanochemistry*, Dec 2006, Chennai, Tamil Nadu, India
- **'Removal of As(III) from the natural water media using flat-sheet supported liquid membrane containing Cyanex 301 as carrier'**, *National Conference on Eco-, Sono-, and Nanochemistry*, Dec 2006, Chennai, Tamil Nadu, India
- **'Removal & Recovery of As(III) from the Aqueous Stream using Extractant Impregnated Natural and Man-Made Fibers'**, *First International Collaborative Conference with AATCC & INDA (AFINT 2006)*, Aug 2006, Coimbatore, Tamil Nadu, India
- **'Removal and Recovery of As(III) from Natural Water using Impregnated Supports'**, *International Conference on Environmental Geosciences (ICEG 2006)*, Feb 2006, Anna University, Chennai, Tamil Nadu, India
- **'Removal and Recovery of Co(II) and Mn(II) from Industrial Effluent using Agar-Agar as Sorbent'**, *International Interdisciplinary Conference on Sustainable Technologies and Environmental Protection (ICSTEP 2006)*, Jan 2006, Coimbatore, Tamil Nadu, India
- **'Extraction Chromatographic Separation of Lanthanides, Uranium, Thorium and Zirconium using Cyanex 923 impregnated on Chromosorb 102-Their Recovery from Allanite'**, *PREP-2005: 18th International Symposium, Exhibit & Workshops on Preparative/Process Chromatography, Ion Exchange, Adsorption/Desorption Processes & Related Separation Techniques*, May 2005, Philadelphia, Pennsylvania, USA
- **'Liquid-Liquid Extraction Studies on Arsenic using Organophosphorus Extractant'**, *National Seminar on Modern Trends in Nanotechnology and Supramolecular Assemblies*, Apr 2005, Ahmedabad, Gujarat, India
- **'Stabilization of Solvent Impregnated Resins (SIRs) by coating with Water-soluble Polymer and Chemical Cross-linking and its Application in Mercury Removal'**, *International Conference on Advances in Polymer Blends, Composites, IPNS and Gels: Macro to Nano scales (ICBC 2005)*, Mar 2005, Kottayam, Kerala, India
- **'Extraction and Recovery of Zirconium using Cyanex 923'**, *DAE-BRNS Theme Meeting on Emerging Trends in Separation Science and Technology (SESTEC 2004)*, July 2004, Bhabha Atomic Research Centre (BARC), Bombay, Maharashtra, India

Lectures Delivered:

A lecture on **'Sustainable Buildings – A Pathway Towards Green Cities'** paper presented at the One-day training program on *Making Green Cities: A way for Sustainable Urban Development* at Department of Planning, School of Architecture and Planning, Anna University on March 22, 2013.

A lecture on **'Arsenic Contamination: An Insight on the Qualitative and Quantitative Pathways of Decontaminating the Natural Toxin'** in the Ministry of Earth Sciences sponsored *National Seminar on Environmental Science and Engineering* at Easwari Engineering College, Chennai on January 10-11, 2013

A lecture on “**Sustainable Environment**” was delivered and chaired the technical session on “Sustainable Environment”, National Seminar on Issues and Challenges of Sustainable Development in India held on January 30 and 31, 2012 organized by Department of Economics, Quaid-E-Millath Government College for Women in collaboration with Association of Economists of Tamil Nadu

A lecture on “**Studies on the Removal and Recovery of Toxic Pollutants**” was delivered on September 28, 2010 at the UGC Refresher Course organized in the Department of Analytical Chemistry, Univeristy of Madras, Chennai.

A lecture on “**Environment and Economics**” was delivered on July 15, 2010 at the World Environment Day 2010 celebration themed “Biodiversity – Ecosystem Management and the Green Economy” organized by the Department of Architecture Sathyabama University in Association with the Institute of Town Planners, India – Tamil Nadu Regional Chapter (ITPI-TNRC) & Institute of Indian Architects - Tamil Nadu Chapter (IIA-TNC), July 15 and 16, 2010.

A lecture on “**Environmental Resource Economics – Theory, Practice and Policy**” was delivered at the UGC Refresher Course organized in the Department of Economics, Univeristy of Madras, Chennai, November 21, 2009

A lecture on “ **Accounting for Water Quality – Case Study of Arsenic Pollution**” on October 3, 2008 in the Training Programme on Environmental Statistics with special reference to water accounting for Indian Statistical Service Officers, September 29- October 3, 2008, sponsored by Central Statistical Organization, Government of India

A lecture on “**Pre- and Post Tsunami Coastal Planning and Land-Use Policy Issues in India**” was delivered at the UGC Refresher Course on “Contemporary Economic Policy Issues in India” at Madras School of Economics, December 4, 2007

A lecture on “**Partnership of Media and Community Based Disaster Management in Asia**” was delivered at the Workshop on Media and Disaster Management organized by The Media Information and Communication Centre of India (MICCI) in collaboration with the Friedrich Ebert Stiftung, (FES) and the local partner Indian Online Media Forum (IOMF) on December 14 and 15, 2007

Other Publications

A tamil newspaper article was written in Dinamani, Tamil Newspaper, India (Aug 21, 2011): **Environmental Damage caused by Plastics and Opinion over Charging of Plastic Consumption across Tamil Nadu**
<http://www.dinamani.com/edition/Story.aspx?SectionName=Sunday%20Kondattam&artid=463700&SectionID=144&MainSectionID=144&SEO=&Title=%20%20?%20>

An article in The Hindu newspaper, India highlighted my opinion over the link between **Happiness and Economy** published on January 17, 2010
<http://www.hinduonnet.com/mag/2010/01/17/stories/2010011750050100.htm>

Dissertations Supervised

S.NO	TITLE OF THESIS	YEAR	NAME OF STUDENT
1.	Financial Development and CO ₂ Emissions	2013	Ms. Sneha Mishra

	in India – A Time Series Analysis		
2.	Interlinkage between Public Infrastructure and Agricultural Crop Productivity in India: An Evaluation of the past three decades	2013	Mr. Karthick R
3	Game Theoretical Approach to Cauvery Conflict	2012	Ms. Jeeva Mary Jacob
4.	Analysing the Pathways to Improve Tiger Conservation in India	2012	Ms. Amanat K. Gill
5.	Determinants of Fuel Choices Among Indian Households: An Empirical Investigation	2012	Mr. Md. Tajuddin Khan
6.	Efficiency of Online Banking Deposits across Domestic and Foreign Banks in India - Using Stochastic Frontier Model	2012	Mr. Dhananjay Jaiswal
7.	An Evaluation of Public and Private Medical Facility Provision across India	2012	Ms. Sowmya. M
8.	Fertilizer Use and Application – An Indian Scenario	2012	Ms. Shobita Suresh
9.	Examining the Current Status of Primary Education Facility in India	2012	Mr. Abdur Rasheed. M
10.	Analyzing the Effectiveness of Imposing Charge for Usage of Plastic Bags in Chennai City	2012	Mr. Yaadhav Dheepan. C
11.	Study on the Adverse Health Impacts caused by Tuberculosis across India	2012	Mr. Siva Chidambaranathan. M
12.	Socio-Economic Analysis of Personal Carbon Trading – A Prospective View of Consumers	2011	Ms. V.P.Jyosthnaa
13.	Financing the response to Climate Change for Developing Countries	2011	Mr. S. Dheeraj
14	An Analysis of travel characteristics and expenditure on Domestic Tourism in India	2011	Mr. Durairaj R
15.	Modern versus Traditional Retail Stores- Consumers' perspective in Chennai: A Case Study	2011	Mr. Arun Jacob Mathews
16.	Techno-economic analysis of Biofuel - An alternative transportation fuel	2010	Ms. Uttara Prakash
17.	Status and causes for the change in the concentration of natural marine wealth - Coral Reef	2010	Mr. Vijendran
18.	Safer building practices to deal with natural disasters : A study of South Asian countries	2010	Ms. Vaishnavi
19.	Impact of Community awareness programme in the conservation of wetlands: A case study of Vaagaikulam lake	2010	Ms. Divya
20.	Economic Valuation of Cultural Heritage: A	2009	Ms. Dhriti Mirpuri

	Case Study of Kapaleeshwar Temple		
21.	Focus on the role of news media on the electricity problem in Chennai	2009	Mr. Vijayasarithi M
22.	Study on the determination of the cost-effective adsorbents to remove toxic metal pollutants from industrial waste water	2009	Ms. Uvaneswari. P
23.	Valuing the recreational benefit of Guindy National Park in Chennai	2009	Mr. Ramesh K
24.	Assessment of Health impacts on residents living on the banks of the Buckingham Canal	2009	Ms. Vibha. D.S.
25.	The Role of Mass Media on the child labour problems of India	2008	Mr. Karthi J
26.	Assessment of Impact of Water Pollution on human health in the city of Chennai	2008	Mr. Chandrasekar.D
27.	Valuing Ecotourism in Chennai Crocodile Bank	2008	Mr. Prabhakaran T.R

PROJECTS (during Masters Integrated Program):

Pondicherry Central University, Pondicherry, India

Department of Chemistry, Dec '02-Apr '03

Project: Synthesis and Characterisation of Cu(II)TPP, Cu(II)TPP(NO₂)₂, Ni(II)TPP(NO₂)₂, Zn(II)TPP(NO₂)₂ and H₂TPP(NO₂)₂

Indian Institute of Technology, Kanpur, India

Department of Chemistry, May-July, 2002

Project: Modeling of Oxygen Activation in Synthetic Metalloporphyrins

Pondicherry University, Pondicherry, India

Department of Chemistry, May-July, 2001

Project: Synthesis of Symmetric and Unsymmetric Porphyrins and its characteristic structural study

EXTRA CURRICULARS:

ACTIVITY	ACHIEVEMENT	PERIOD
'Bayes by the Bay - A Pedagogical Workshop on Bayesian Methods in Science' conducted by The Institute of Mathematical Sciences	Participated in the training workshop	2013
'Workshop on the Diagnostic Tools and Instruments for Assessing Environmental Challenges: Computable General Equilibrium Modeling and other Approaches' conducted by the Madras School of Economics in collaboration with the South Asia Sustainable Development Department of the World Bank	Participated in the training workshop	2012
International Workshop on the USEPA's AEROMOD modelling system for Environmental	Participated in the International Workshop	2006

Professionals		
Evaluation workshop of the ENVIS centers of Southern Region at Hyderabad	Participated in the Workshop to represent ENVIS, Centre from Madras School of Economics	2008
International Workshop on the Environmental Management – an Executive Overview	Participated in the International Workshop	2006
National Conference on Advanced Characterization Techniques on Nanomaterials	Participated in the National Conference	2005
Quiz Competition held in the Sarojini Bhawan, IIT Roorkee	Secured First Position	2005
22nd Conference of Indian Council of Chemists	Participated in the National Conference	2003
One day Symposium sponsored by UGC on the Thrust Areas in Chemistry	Participated in the Symposium	2003
Short Term Course on the Use of E-Resources	Participated in the Short Term Course	2003
Tamil Essay Competition organized by the Directorate of Civil Supplies, Government of Pondicherry	Secured Third Position	1997
National Science Day Celebration held in the Centre of Biotechnology, Pondicherry University	Participated as a School Representative in the Seminar, Essay Competition and Displayed the Exhibits	1997

Computer Literacy

- Program Languages: Basic
- Application Software: ISIS Draw, CHEMDRAW, Origin, Sigma Plot, SciFinder

SKILLS:

Analytical Techniques

- Physical Techniques & Inference Interpretation: Solvent Extraction, Extraction Chromatography, Adsorption, Paper, Thin-Layer, Column Chromatographic Techniques, Supported Liquid Membrane and other Impregnated Adsorption Supports
- Computer Simulation: Langmuir and Freundlich Adsorption Isotherms, Lagregren Order Reaction Rate Kinetics
- Microscopy: Scanning Electron Microscopy
- Optical: UV-Vis Spectroscopy, Infra-Red Spectroscopy, Atomic Absorption Spectrometer, Inductively Coupled Plasma-Mass Spectrometer, Flame Photometer, Different Spectrophotometers, Inductively Coupled Plasma-Atomic Emission Spectrometer, Electron Paramagnetic Resonance
- Electrochemical Techniques: Polarography