

Dr. Shouri Banerjee

Associate Professor in Chemistry
Department of Applied Sciences & Humanities
Phone: 09434333272
E-mail: shouri.ash@rahul.ac.in

Educational Qualification

Obtained M.Sc degree in Chemistry (Specialization- Analytical Chemistry) , in 1997, from BHU

Obtained Ph.D. degree in Analytical Chemistry from BHU, submitted on 4th March , 2002 , and degree awarded in January 2003.

Academic & Administrative Experience

Present:

- Associate Professor, Chemistry, Department of Applied Sciences & Humanities, Durgapur Institute of Advanced Technology & Management, (DIATM) since July, 2012 (The Engineering college is under WBUT & AICTE approved).
- Coordinator of NAAC Documentation

Past :

- Lecturer in Chemistry (Durgapur Institute of Advanced Technology and Management) - Was engaged with Durgapur Institute of Advanced Technology and Management (DIATM), Rajbandh, as Lecturer in Chemistry, from 15-07-2002 to July,2006.
- Principal-In-Charge Durgapur College Of Commerce and Science - Joined Durgapur College Of Commerce and Science (DCCS), a degree college under the University of Burdwan, as Principal-In-Charge, from 1st August,2006 till June,2012.
- Also headed the University Examination Cell of the Institute as Officer-In-Charge.

Research Activity

- Research work is concentrated towards the development of some novel Chromatographic Column packing materials for selective enrichment / pre-concentration of trace analytes present in synthetic as well as natural samples at trace level employing accurate detection by differential pulse anodic stripping voltammetry.
- During the research period, came in acquaintance with the theory and practice of several analytical instruments like polarograph, conductometer, pH-meter, spectrophotometer, atomic absorption spectrophotometer and liquid column chromatograph.

PROJECT WORKS UNDERTAKEN

1. Professional

- i. Worked with Prof. Monoranjan Banerjee, Retd. Prof. of Inorganic Chemistry N.I.T. Durgapur, on (I) Beryllium Analysis & (II) Polymer Preparation, characterization & studying their electrical & magnetic properties.
- ii. Earned a research project for the college from DST, WB on Liquid Fertilizer with DR. Sribir Sen as Supervisor.

2. During Ph.D

- i. Research work is concentrated towards the development of some novel Chromatographic Column packing materials for selective enrichment / pre-concentration of trace analytes present in synthetic as well as natural samples at trace level employing accurate detection by differential pulse anodic stripping voltammetry. My work is broadly classified into two parts: 1) fractionation [both labile i.e. ionic + weakly complexed and total metal content] of target metals in aquatic environment and blood plasma and 2) development of molecularly imprinted polymeric (MIP) sorbents for the trace recognition of the template molecule, in my case (i) a herbicide and (ii) a drug moiety, are being chosen as the template molecules for the preparation of MIP sorbents. The effects of various parameters such as flow rate, equilibration time, and pH are being studied for effective column performance, for application in single column ion chromatography.

3. During M.Sc curriculum:

- i. Studies on Catalytic Vapour Phase Ammoxidation of 3-Picoline to 3-Cyanopyridine & 4-cyanopyridine respectively.
- ii. Studies on Characterization of the above synthesized organic compounds by Infrared & Gas Chromatography techniques.

SEMINAR / SYMPOSIUMS ATTENDED

A number of seminars and conferences attended both during research and professional tenure, acted as convenor too. Only a select two during research days have been sited.

1. Participated in the National Symposium on “Organic synthesis: Retrospect and Prospects” held in the Department of Chemistry, BHU, Varanasi, during January 19-20, 2001.
2. Attended a Workshop on “Microscale Experiments in Chemistry” conducted at Department of Chemistry (under Special Assistance Programme), Faculty of Science, BHU, in August, 2001. Paper entitled “Determination of Diquat Herbicide by Selective Enrichment on Column Chromatography on Imprinted Polymer Immobilized Silica Gel” selected for presentation during the 89th session of the Science Congress held in Lucknow from 3-7 January, 2002.

List of Publications:

1. Determination of Diquat Herbicide by selective enrichment by column chromatography on imprinted polymer immobilized silica gel. *Chromatographia*, 2002, 55, 171-176.
2. Voltammetric studies of an oxazolone derivative of cefaclor in aqueous buffers. *Ind. J. Chem.*, 2002, 41A, 2025-2031.
3. Preparation, Characterization and Performance of a Silica Gel bonded molecularly imprinted polymer for selective recognition and enrichment of β -lactam antibiotics. *Reactive and Functional Polymers*, 2003, 55(2), 159-169.
4. Chelating Resin, Immobilized Sawdust Packed Chromatographic Column: Application to Selective Preconcentration of Pb(II) Ion. *Toxicological and Environmental Chemistry*, 2005, 87(1), 31-44.
5. An AlgaSORB Column for the Quantitative Sorption of As(III) from Water Samples. *Water Quality Res. J. Can.*, 2006, 41(2), 190-197.

Achievements

- Was awarded the “*Best Faculty Award*” for the year 2003.
- Paper entitled “Determination of Diquat Herbicide by Selective Enrichment on Column Chromatography on Imprinted Polymer Immobilized Silica Gel” selected for presentation during the 89th session of the *Science Congress held in Lucknow from 3-7 January, 2002*.
- Was handed over the responsibility of leading an institute as the *Principal-in-Charge* just after 3 years of work experience as a Lecturer with DIATM.
- Earned a research project for the college from DST, WB on Liquid Fertilizer with DR. Sribir Sen as Supervisor
- Also engaged in taking classes of B. Sc Pass-Chemistry for Biotechnology, Biochemistry & Microbiology courses at “Durgapur College of Commerce & Science” under Burdwan University.
- Post Graduate Board Of Studies Member of Biochemistry, Burdwan University.
- Acted as both *internal and external supervisors and examiners* of the West Bengal University of Technology and Burdwan University. Also acted as Moderator, Biochemistry, Burdwan University as well as Head Examiner, Chemistry, WBUT.
- Leading and actively participating in *Counseling Programmes* of the college, DIATM, at various places.
- Active participation in various *non-academic functions* of DIATM.
- Secured 80% marks in NTSC Mathematics, held by Central Institute of General Knowledge Training – which was the criteria for Silver Medal.
- Secured Grade A-1 (above 96 percentile) in class Xth test of the National Study of Scholastic Achievement 1990, held by NCERT, New Delhi.
- Secured Third position in the Inter Jesuit Schools’ Extempore Competition held at St. Joseph’s School, Darjeeling, 1990.
- Scientific Membership: Membership of the Indian Science Congress Association: Membership no. 000494