

## Resume



### **Dr. Debarati Chakraborty**

Address:

16, Kabi Nabin Sen Road  
Shovona Mansion, 3 rd Floor  
Kolkata 700028

Contact – 8289030122 / 9051558554

Email : [s\\_debarati@hotmail.com](mailto:s_debarati@hotmail.com)

### **PERSONAL PROFILE**

Date of Birth: 21-May-1969

Nationality: Indian

Sex: Female

### **OBJECTIVE**

To get a challenging position in the field of Chemistry.

With good leadership skills and being updated with the latest information in the research and development segment and keeping in touch with on the latest technology would be able to improve the quality of research and education.

### **EDUCATION**

**Ph.D** (Organic Chemistry): Year 2000

In Organic Chemistry. From **Jadavpur University, Calcutta-700032, India**

Research Supervisor: Dr. Saumitra Sengupta

**M. Sc.** (Organic Chemistry): Year 1993: **1st Class with 70.4 % marks**

University of Calcutta, Kolkata, India,

**B. Sc. (Honors in Chemistry)** with Physics and Mathematics as pass subjects -  
Year 1991 : **1st Class with 64.25% marks** from University of Calcutta, Kolkata,  
India,

### **SCHOLASTIC APTITUDE**

Recipient of National Scholarship (Awarded by MHRD, Govt. of India)  
Graduate Aptitude Test in Engineering (conducted by IITs). Percentile Score: 88  
Junior Research Fellowship by University Grant Commission (UGC) of India  
Recipient of Gold Medal as a topper in BSc Chemistry Hons (Awarded by Bethune  
College, Kolkata).

### **TOTAL EXPERIENCE (18 + years):**

#### **Teaching experience: 5 years**

- 1. State Aided College Teacher (SACT I):** (1 st Jan-2020 onwards); **in Hiralal Majumdar Memorial College for Women, Kolkata.** Taking UG chemistry classes and involved in all departmental activities.
- 2. Guest Faculty Chemistry:** (July 2019 to 31 st Dec 2019); **in Hiralal Majumdar Memorial College for Women, Kolkata.** Taking UG chemistry classes.
- 3. HOD in Chemistry/ Dean R & D:** (Jan 2017 to July 2019); **in The Oxford College of Science, HSR Lay out Bangalore,** Accredited by NAAC with “A” Grade, Accredited by International Accreditation Organization (IAO) and Permanently Affiliated to Bangalore University, Recognized by UGC under section 2(f) and 12(B)

#### **Main Function as Dean Research and development:**

- Monitoring all R & D activities in the college
- Scouting various notifications with respect to research proposals, conferences, seminars,, workshops, training programs and communicating to all faculty.
- Motivating faculty for paper/poster presentations in conferences, paper publications in referred journal at least one per year
- Editor of college online multidisciplinary science journal (The Oxford Journal of science and research, TOJSR; [www.tojsr.org](http://www.tojsr.org) )
- Serving as a member secretary of Institutional research Committee (IRC) and conducting IRC meetings to promote Research & Development, sustenance and Consultancy policy.

#### **Main Function as HOD (Chemistry) & Associate Professor in chemistry:**

- Playing a major role in enabling the college to achieve its mission and goals through strong commitment to educational standards and values.

- Responsible for semester planning, manpower planning, subjects allocation to faculty, Lab management, conducting university exams in UG and PG level.
- Preparing budget proposals and procuring consumable and non consumable items for chemistry lab.
- Monitoring theory and practical chemistry classes in accordance with lesson plan, student attendance and discipline.
- Organizing guest lectures, workshops and industrial visits.
- Supervising PG students for in house projects

4. **Associate Professor in Chemistry:** (2014 -16) in **Chandigarh University**, Mohali, Punjab. [Chandigarh University is established in 2012, approved by Punjab Government under 'The Chandigarh University Act', Punjab Act #7 of 2012) and recognized under Section 2(f) and Section 3 with the right to confer degree as per section 22(1) of the UGC act, 1956].

#### **Main Function**

- As a **Subject Coordinator in Chemistry**, I am taking the entire responsibility of **theory and practical chemistry classes** for B.Sc and BE students.
- Involve in fixing the vision and mission of the Chemistry Department.
- Designing new syllabus, making power point presentation of chemistry, generating **outcome based practical instruction sheets** in chemistry.
- Engaged in Patent filling activity on behalf of Chandigarh University (filled one patent and one is under progress).
- Mentoring the students.
- Mentoring the junior teachers in the department.

#### **Industrial experience: About 13 years**

**Group Leader:** April 2011 to 31 st Aug, 2013: Navin Fluorine International Limited (NFIL), Surat, India.

#### Main function

- Leading a group of 12 chemists for various CRAMS projects.
- Developing Processes and Scaling it up from labs to Kilo labs to pilot plant scale (~100 kg) for novel molecules (New Chemical Entity) under CRAMS operation
- Well versed with scale-up technologies, the technology transfer and trouble shooter for the early stage new product development
- Helping the project management team and marketing/business development team to do the competitive costing/bidding for any new enquiry.
- Serving as point of contact person from the organization for many projects with different clients and responsible for timely delivery and client satisfaction

- Providing regular feedback to clients for the running projects by sending updates and attending teleconferences.

**Group Leader:** April 2009 to March, 2011, : Hikal Ltd (R& D), Bangalore, India.

Main function

- Leading a group of 7-8 chemists for a pharma company.
- Developing cost effective, noninfringing as well as nonhazardous procedures for different API and agrochemicals
- Involved in custom synthesis of drug intermediates.
- Filed process patent for different chemical intermediates.

**Group Leader:** Feb 2001 to April 2009: TCG Lifesciences Ltd. (Formerly Chembiotek Research Int. Pvt. Ltd.), Kolkata, India.

Main function

- Providing scientific as well as administrative leadership to a team of 15-17 chemists working on various synthetic chemistry project.
- Acting as point contact person from the organization for the specific project. Responsible for delivery, productivity, client satisfaction.
- Team management and creating good work environment for team performance.
- Providing regular feedback to clients for the running projects by sending updates and attending teleconferences.
- To ensure the timely completion of projects maintaining proper quality and quantity.
- To design synthetic scheme and cost estimation for new proposals and ordering chemicals for the same
- To make effective planning for maximum utilization of manpower to increase output
- Active and leading role in some other organizational responsibilities e.g. recruitment, performance evaluation, communication, environment health and safety (EHS).

## ACADEMIC RESEARCH

PhD (Organic Chemistry): 2000, Jadavpur University, Kolkata, India under guidance of Dr. Saumitra Sengupta.

### Snapshot Ph.D:

PhD work involved “*Chiral pool synthesis of 1, 2- amino alcohols*” from varieties of L-amino acids by developing new methodology for stereo selective reduction of N-phthaloyl  $\alpha$ -amino ketones to afford *syn*-1, 2- amino alcohols.

**PUBLICATIONS: 10 (National and International Journals) papers and three patents**

- 1) RuCl<sub>2</sub>(PPh<sub>3</sub>)<sub>3</sub>: A new catalyst for Diazocarbonyl insertions into hetero-hydrogen bonds; Saumitra Sengupta, Debasis Das and Debarati Sen Sarma. *Tetrahedron Lett.* 1996, 37, 8815.
- 2) A facile synthesis of enantiopure  $\alpha$ -amino and  $\gamma$ -hydroxy- $\beta$ -ketosulphones; Saumitra Sengupta, Debarati Sen Sarma and Somnath Mondal. *Synth. Commun.* 1998, 28, 4409.
- 3)  $\alpha$ -Amino- $\beta$ -ketosulphones as chiral educts: A facile synthesis of enantiopure  $\alpha$ -amino ketones ; Saumitra Sengupta, Debarati SenSarma and Somnath Mondal. *Tetrahedron*, 1998, 54, 9791
- 4)  $\alpha$ -Chiral- $\beta$ -ketosulphones in chiral synthesis: A unified synthetic strategy for enantiopure  $\gamma$ -amino and  $\gamma$ -hydroxy vinyl sulphones: Saumitra Sengupta, Debarati SenSarma and Somnath Mondal. *Tetrahedron Asymmetry*, 1998, 9, 2311
- 5) Stereoselective reduction of N-phthaloyl- $\alpha$ -amino- $\beta$ -ketones: An expeditious new synthesis of non-racemic *threo*- $\alpha$ -amino epoxides. Saumitra Sengupta, Debarati SenSarma and Debasis Das. *Tetrahedron Asymmetry*, 1999, 10, 1653
- 6) Stereoselective reduction of N-phthaloyl- $\alpha$ -amino- $\beta$ -ketones: An expeditious synthesis of statine. Saumitra Sengupta and Debarati SenSarma. *Tetrahedron Asymmetry*, 1999, 10, 4633
- 7) Synthesis of (2R, 3S)-3-(N, N-dibenzylamino)-1-thiophenyl butan-2-ol: Saumitra Sengupta, and Debarati SenSarma. *J. India Chem. Soc.* 1999, 76, 641
- 8) Diastereoselective reduction of N-phthaloyl- $\alpha$ -amino- $\beta$ -ketones: synthesis of *syn*-3-amino-1, 2-diol derivatives. Saumitra Sengupta and Debarati SenSarma. *Tetrahedron Letter*, 2001, 42, 485-487.
- 9) Green Methodology Development applying UPLC Technique. N. K. Dhir, Debarati Chakraborty ; The Oxford Journal of Science and Research, 2018, 1, 38-42.
- 10) Dynamic & Rapid Isocratic Greener Analytical Method for Estimation of Chlorocresol along with Azole compounds in Ointment. N. K. Dhir, Debarati Chakraborty & V. Kaur; Asian Journal of Chemistry; 2018, 30, 201.

**Patent:**

1. Improved process for the preparation of 1-fluoro-2, 3-dialkoxybenzene and 2-fluoro-1, 4-dialkoxybenzene: WO2011/064789:
2. Green Analytical technique for Drug quantification-Indian patent (4299/DEL/2015) published on 22/12/2017
3. IMPROVED ANALYTICAL METHOD FOR IMPURITY DETECTION IN LOZENGES- Indian patent (201611040797) published on 01/06/2018.

**Workshops attended:**

1. Attended DST sponsored Green Chemistry workshop (13 th Dec-22 nd Dec, 2009) held at **School of Chemistry, Madurai Kamaraj University**, Madurai 625 021
2. Attended **IP** workshop on using patents for pharma industry (23 rd April, 2010) at Bangalore organized by Brain League.
3. Attended training sessions on ‘Time management’, ‘Emotion management’ and ‘Etiquette management’ in 2012.
4. Attended three Faculty development program (FDP) organized by Chandigarh University in , 2014, 2015 and 2016.
5. Attended two Faculty development program (FDP) organized by The Oxford College of Science in 2017 & 18.
6. Attended National Conference on Future India: Science & Technology on 10 th & 11 th October, 2018 organized by The Indian Science Congress Association (ISCA, Bangalore Chapter) held at The Oxford College of Science, Bengaluru.

**Journal Editor:**

The Oxford Journal of Science & Research (TOJSR; [www.tojsr.org](http://www.tojsr.org))

**Membership:**

Life member (**membership no L37760**) of ‘The Indian Science Congress Association’



**Date :** 20.04.2020

**Signature**

**Place :** Kolkata

Dr. Debarati Chakraborty