Dr. Ankur Ray

Department of Chemistry,

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Professional Summary

Experienced academic and researcher in Organic Chemistry with a strong background in teaching, curriculum development, and laboratory instruction. Passionate about advancing chemical education through innovative pedagogy and rigorous scientific inquiry. Known for mentoring undergraduate and postgraduate students, publishing peer-reviewed research, and contributing to academic excellence at the tertiary level. Committed to fostering analytical thinking and a deep understanding of organic synthesis, reaction mechanisms, and green chemistry.

Work Experience

Currently working as an Assistant Professor (Stage III) – Department of Chemistry, St. Xavier's College (Autonomous), Kolkata, from 2006.

Education

- **Ph.D.** in Organic Chemistry from **Indian Institute of Chemical Biology** (**IICB**), Kolkata, in 2008.

  Thesis Title: **Approaches to chiral heterocycles from carbohydrate derivatives involving cycloaddition and cyclization reactions.**
- **M.Sc**. in Chemistry (Specialization: Organic Chemistry) from University of Kalyani, in 1998.
- **B.Sc.** in Chemistry (Honours) from University of Calcutta in 1996.
- Qualified **NET (CSIR)** in 2001.

- Qualified **GATE** in 2000.

Skills

- Organic Synthesis and Mechanistic Chemistry
- Spectroscopy (NMR, IR, UV-Vis)
- Green Chemistry Practices
- Laboratory Safety and Management
- Research Writing and Peer Review
- Curriculum Development
- Student Mentorship and Academic Advising
- Microsoft Office, ChemDraw, Origin.

List of Publications

1. Cu(I)-Catalyzed cycloaddition of constrained azido-alkynes: access to 12- to 17-membered monomeric triazolophanes incorporating furanoside rings
Ankur Ray, K. Manoj, Mohan M. Bhadbhade, Ranjan Mukhopadhyaya and Anup Bhattacharjya.
2006. *Tetrahedron Lett*, 47: 2775–2778.

2. Synthesis and trans–cis isomerization of azobenzene dendrimers incorporating 1,2-isopropylidenefuranose rings
Ankur Ray, Sudeshna Bhattacharya, Subir Ghorai, Tapan Ganguly and Anup Bhattacharjya.
2007. *Tetrahedron Lett*, 48: 8078–8082.

3. Ferrocene cored dendrimers incorporating anthracene capped furanoside branches: synthesis and photophysical studies
Ankur Ray, Subir Ghorai
2011. *Tetrahedron Lett*, 52: 2980–2983.

4. Synthesis of chiral macrocyclic sugar-peptide hybrids by ring closing metathesis approach
Ankur Ray
2011. *Tetrahedron Lett*, 52: 3038–3040.

5. Role of carbonic anhydrase in biological carbon pump system of aquatic ecosystems-A short review. Sabiha Khan, Ankur Ray, Susmita Lahiri, S. **2018** . Avishkar, A Xaverian Journal of Research, 10: 92-107.

6. Activity of carbonic anhydrase enzyme in aquatic ecosystems as a green technology to assess carbondioxide pollution. In: Green Technology for Bioremediation of Environmental Pollution.
Sabiha Khan, **Ankur Ray**, Jatindra Nath Bhakta, Susmita Lahiri.**2018**. Edited by J.N. Bhakta, S. Lahiri, B.B. Jana. Nova publishers.

7. Convergent synthesis of novel mono- and di substituted 1,2-isopropyledeneglucofuranose appended dendrimers with a ferrocene core and their electrochemical studied.
Ankur Ray, Sabiha Khan. **2018**. Synlett, 29 (10): 1367-1372.

8. Bacterial multi-enzyme signature assessment for waste water reclamation and ecological resilience in tropical waste stabilization pond
Sabiha Khan, **Ankur Ray**, Jatindranath Bhakta and Susmita Lahiri (Ganguly).
Revised Manuscript submitted to **International Journal of Environmental Science and technology**.(Impact Factor 2.86).

Poster Presentations

1. Isolation and identification of cellulose degrading bacteria from domestic wastewater biological treatment system and evaluation of extracellulase activity in relation with the carbon sequestration potential of the system. Sabiha Khan, **Ankur Ray** and Susmita Lahiri, International Symposium on facets of Chemistry in Biology (FOCB-II), January 12, Department of Chemistry, St Xavier's College, Kolkata.
2. Carbonic anhydrase activity-a carbon dioxide capturing agent produced by the microalgal-bacterial consortium present in the wastewater fed aquaculture system. Sabiha Khan, **Ankur Ray**, Susmita Lahiri, RUSA funded international level seminar, January 14, **2017**, Department of Microbiology, Ramkrishna Mission Vidyamadir, Kolkata.

Paper Presentation and Outstanding Paper Presentation Award received

Activity Assay of Signature Molecule To Assess The Carbon Fixation In Tropical Waste Water Aquaculture Pond. Sabiha Khan, **Ankur Ray** and Susmita Lahiri, 2nd Regional Science and TechnologyCongress (Southerregion), December 14-15, **2017**, Organised by Kalyani University and Department of Higher Education, Science and Technology and Biotechnology, Government of West Bengal.

Paper Presentation

Activity Assay of Signature Molecule to Assess the Carbon Fixation in Tropical Waste Water Aquaculture Pond. Sabiha Khan, **Ankur Ray** and Susmita Lahiri, 25th West Bengal State Science and Technology Congress, March 4-5, **2018**, Organised by Department of Higher Education, Science and Technology and Biotechnology, Government of West Bengal.