

►SANGHAMITRA NAIK

Roll No.- 22RS089,

Department of Chemical Sciences, IISER Kolkata.

D.O.B. – 3rd March, 2000.

Gender - Female.

Supervisor – Dr. Biplab Maji, Associate Professor, DCS, IISER Kolkata.



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Objective

To utilize underlying principles of photocatalysis to develop novel synthetic strategies for late stage derivatization of potential drug molecules as well as employ electrochemistry as an advanced and green tool for carrying out catalytic transformations otherwise difficult to achievable via conventional strategies.

Education

Examination	Institution	Board	Year	CGPA or %
Post-Graduation	IIT Hyderabad	IIT Hyderabad	2022	9.59
Graduation	BJB Autonomous College, BBSR.	Utkal University, BBSR.	2020	9.66
Intermediate(+2)	Prabhujee English Medium School, BBSR.	CBSE	2017	96%
Matriculation	Prabhujee English Medium School, BBSR.	CBSE	2015	10.00

Research Interest

- Photocatalytic dearomative cycloaddition reaction of arenes and heteroarenes and its applications.
- Late stage photocatalytic derivatization of potential bioactive molecules.
- Electrochemical synthesis and catalytic pathways for bypassing conventional synthetic strategies.

Research Experience

Masters project entitled “**Facile synthesis of multidentate ligands and their corresponding zinc complexes**”.

Guide: - Dr. Tarun Kanti Panda, Professor, Department of Chemistry, IIT Hyderabad.

Year: - 2021-2022.

- **Chapter 1:** - Synthesis of imino-pyrrole based salamo type N₂O₂ ligand and corresponding zinc complexes.
- **Chapter 2:** - Synthesis of a β-ketoimine based N,O- chelating ligand.

Scholastic Achievements

- Secured AIR-74 in the Joint CSIR-UGC NET Exam, June 2022 cycle and qualified with UGC-JRF.
- Secured AIR-29 in NET-LS in the Joint CSIR-UGC NET Exam, June 2021 cycle.
- Awarded the institute silver medal for securing the highest CGPA in M.Sc. Chemistry (2020-2022) at the Department of Chemistry, IIT Hyderabad.
- Awarded the Departmental topper certificate for securing highest CGPA in B.Sc. (Chemistry) for the academic session 2017-2022 at BJB Autonomous College.
- Secured AIR- 339 among 16687 candidates in IIT-JAM Examination – 2020.
- Awarded by Prabhujee English Medium School and the Sahodaya Schools Complex for securing highest marks in science stream in AISSCE-2017.
- Awarded school academic best award for CGPA 10.0 in SSE-2015.

Courses undertaken in Post Graduation

Electrochemistry and chemical kinetics, surface science and statistical thermodynamics, physical methods in chemistry, solid state chemistry, stereochemistry, reaction mechanism and aromaticity, synthetic methodology in organic chemistry and chemistry of multiple bonds, organic spectroscopy, quantum chemistry, molecular spectroscopy, molecular symmetry, advanced inorganic chemistry, metals in biology, nanochemistry and applications, organolanthanide chemistry and bioinspiration and biomimicry in chemistry.

Skills

- **Laboratory skills:** - Chromatography (column, paper, TLC), liquid-liquid extraction, sample preparation for NMR and FT-IR analysis, UV-visible and fluorescence, Titrimetric analysis, Qualitative inorganic and organic analysis.
- **Technical skills:** -
 1. **Operating System:** - Windows.
 2. **Software:** - MS Office, MS Excel, MS PowerPoint, MS Word, MestReNova, Chemdraw Professional, Mercury (version 3.8), Diamond, OriginPro, and ORTEP-3 for windows.