

CURRICULUM VITA

Mr. Mithu Roy

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Discipline of Chemistry
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Education

Standard	Year	Institute/Board/University	Percentage/CPI
Ph.D. (Organic Chemistry)	2019-Present	Indian Institute of Technology Guwahati	8.75/10
M.Sc. (Chemistry)	2017-2019	Indian Institute of Technology Indore	7.78 / 10

Research Experience

- Indian Institute of Technology Indore – Master's Research Project**

Project Topic – Development of Covalent Organic Polymer as a photo catalyst.

Project Advisor – Dr. Apurba K. Das (Associate Professor, IIT Indore)

Project Topic – Synthesis and Characterisation of Mannich Base Complexes.

Project Advisor – Dr. Suman Mukhopadhyay (Professor, IIT Indore)

Project Topic – Preparation of amino acetamide derivative of Glutamic acid as a Precursor of small molecule inhibitors for PSMA.

Project Advisor – Dr. Chelvam Venkatesh (Assistant Professor, IIT Indore)

Project Topic – Synthesis and characterization of Citrate stabilized silver Nanoparticles using spectroscopic techniques.

Project Advisor – Dr. Tushar K. Mukherjee (Associate Professor, IIT Indore)

Skills

Computer Knowledge, Technical and Instrumental knowledge

Working knowledge in MS Office, PowerPoint, and Excel, good awareness regarding the internet, and working ideas to use various chemistry-related software.

Characterization of organic compounds by using ^1H NMR, ^{13}C NMR, HRMS, and IR. Purification of compounds using column chromatography. UV-Vis spectroscopy, Fluorescence spectroscopy, High-performance liquid chromatography (HPLC), and CombiFlash chromatography.

Languages

English, Hindi, and Bengali (mother language).

Hobbies and interests

Travelling, watching sports, Playing football and cricket.

Workshop and Conferences attended

- Participated in the GIAN (Global Initiative for Academic Networks) course on “**Chemistry and Biology of Carbohydrates**” organized by the Indian Institute of Technology Indore in association with **Max Plank Institute of Colloids and Interfaces, Germany**.
- International Conference on Frontiers in Chemical Sciences (**FICS-2022**) from 2-4th December, 2022 at **IIT Guwahati**. (Poster Presented)
- International Conference on Emerging Trends in Chemistry (**ICETC-2023**) from 16-17th March, 2023 at **Assam Don Bosco University**. (Poster Presented)
- National Organic Symposium Trust (**J-NOST-2023**) from 10-12th October, 2023 at **IISER Pune**. (Poster Presented)
- 7th International Symposium on C-H Activation (**ISCHA7-2024**) from 6-9th December, 2024 at **IIT Bombay**. (Poster Presented)

Publications

- **Roy, M.**; Jamatia, R.; Samanta, A.; Mohar, K.; Srimani, D. Change in the Product Selectivity in the Visible Light-Induced Selenium Radical-Mediated 1,4-Aryl Migration Process. *Org. Lett.* **2022**, *24*, 8180–8185.
- **Roy, M.**; Mallick, I.; Mahapatra, M.; Srimani, D. Substituent-Dependent, Switchable Synthesis of Nonaromatic and Aromatic Heterocyclic Sulfones Using Visible Light. *Org. Lett.* **2024**, *26*, 9357–9362.
- **Roy, M.**; Sardar, B.; Mallick, I.; Srimani, D. Generation of alkyl and acyl radicals by visible-light photoredox catalysis: direct activation of C–O bonds in organic transformations. *Beilstein J. Org. Chem.* **2024**, *20*, 1348–13753.
- Sharma, R.; Samanta, A.; Sardar, B.; **Roy, M.**; Srimani, D. Progressive Study on Ruthenium Catalysis for de(Hydrogenative) Alkylation and Alkenylation Using Alcohols as a Sustainable Source. *Org. Biomol. Chem.* **2022**, *20*, 7998–8030.
- Mondal, A.; Phukan, H. J.; Pal, D.; Kumar, S.; **Roy, M.**; Srimani, D. Well-defined Mn(II)-complex Catalyzed Switchable De(hydrogenative) Csp³-H Functionalization of Methyl Heteroarenes: A Sustainable Approach for Diversification of Heterocyclic Motifs. *Chem. Eur. J.* **2023**, e202303315
- Mondal, A.; Pal, D.; Phukan, H. J.; **Roy, M.**; Kumar, S.; Purkayastha, S.; Guha, A. K.; Srimani, D. Manganese Complex Catalyzed Sequential Multi-component Reaction: Enroute to a Quinoline-Derived Azafluorenes. *ChemSusChem* **2024**, *17*, e202301138.

Achievements

- Cleared JAM (Joint admission test for M.Sc.) 2017.
- Qualified NET-LS in December 2018 and NET-JRF (CSIR) in June 2019.
- Qualified for Graduate Aptitude Test in Engineering (GATE-2019) in Chemistry.
- Recipient of Merit-Cum-Means scholarship in Indian Institute of Technology Indore, India, 2017-2019.
- Recipient of Prime Minister's Research Fellowship (PMRF) award in December 2020 (cycle 6).
- Recipient of best poster awards in J-NOST-2023.