

Indian Institute of Science

Dr. Sayan Ray

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PERSONAL INFORMATION

Date of Birth: 6 July 1995 | Place: Sankarpur, Baruipur, Kolkata 743610, West Bengal, India

EDUCATION

Postdoctoral Research in Organic Chemistry with Prof. Devid Sarlah at Rice
University, Houston, United States

Ph.D. in Organic Chemistry, Indian Institute of Science (IISc), Bangalore, India
(Submitted Ph.D. thesis on 24th Dec 2024 and Defended on 11th March 2025)

M.Sc. Chemistry, Indian Institute of Technology (IIT), Bhubaneswar, India

2018-2025

B.Sc. Chemistry (Hons.) Dinabandhu Andrews College, University of
Calcutta, Kolkata, India

RESEARCH & TRAINING

Ph.D. Thesis - Advisor: Professor Santanu Mukherjee 08/2018-12/2024

Indian Institute of Science, Bangalore, India

Research topic: Asymmetric Catalysis, Organocatalysis, Total Synthesis

<u>Thesis title</u>: Breaking Symmetry – Organocatalytic Enantioselective Synthesis of Natural and Unnatural Ladderanes

M.Sc. Thesis - Advisor: Professor Tabrez Khan

11/2017 - 4/2018

2023

Indian Institute of Technology (IIT), Bhubaneswar, India

Research topic: Total Synthesis

<u>Thesis title</u>: Synthetic Studies Towards the Total Synthesis of Some Bioactive Iridoids

AWARDS, FELLOWSHIPS & RECOGNITIONS

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Awarded the "CVNI FTT Boot Paper of the Veer 2022" Synlett 2022 34 863 867

Awarded the <u>Director's Gold Medal 2018</u> (Highest CGPA amongst the students of M.Sc. at IIT Bhubaneswar).

Awarded the <u>Institute Silver Medal 2018</u> (Highest CGPA amongst the students of M.Sc. in Chemistry at IIT Bhubaneswar).

- 2018
- Awarded the <u>Prime Minister Research Fellowship (PMRF)</u> [from Aug **2019** to Aug **2019**-2023 **2023**] from Ministry of Education, Government of India.
- Awarded the <u>DST- INSPIRE scholarship</u> from Ministry of Science and Technology 2013-2018 (for the period of **2013-2018**).

PUBLICATIONS

- 1. <u>S. Ray</u>*, S. Das, D. Behera, P. Biswas, P. K. Tarafdar, S. Mukherjee* *J. Am. Chem. Soc.* (under revision), ChemRxiv: https://doi.org/10.26434/chemrxiv-2025-gmdmv.
- 2. <u>S. Ray</u>, D. Behera, M. S. Harariya, S. Das, P. K. Tarafdar, S. Mukherjee* *J. Am. Chem. Soc.* **2025**, 147, 2523–2536.
- 3. S. Ray, S. Mondal, S. Mukherjee* Angew. Chem. Int. Ed. 2022, 61, e202201584.
- 4. S. Ray, S. Mukherjee*, Synlett 2023, 34, 863-867. [Cover Page] [Synlett Best Paper of the Year 2023].
- 5. S. C. Mallojjala, R. Sarkar, R. W. Karugu, M. S. Manna, <u>S. Ray</u>, S. Mukherjee*, J. S. Hirschi* *J. Am. Chem. Soc.* **2022**, *144*, 17399-17406.
- 6. A. Salam, S. Ray, M. A. Zaid, D. Kumar, T. Khan* Org. Biomol. Chem. 2019, 17, 6831-6842.

POPULAR SCIENCE ARTICLES

"Centrally Chiral Arenes: From Concept to Catalytic Enantioselective Synthesis"
 S. Ray, B. Ghosh, S. Mukherjee, AsiaChem 2023, 3, 34-41. [Invited contribution for the Special Issue on Chemistry in India]

PATENT

1. "Benzo Compounds and Process Thereof"- <u>S. Ray</u>, S. Mukherjee, Indian Patent Appl. No. 202441088524 [6th May **2025**].

POSTER & ORAL PRESENTATION

- 1. <u>Poster:</u> "Breaking Symmetry Organocatalytic Enantioselective Synthesis of Natural and Unnatural Ladderanes" in <u>International Conference on Organometallics and Catalysis (ICOC-2023)</u> at Goa, India. [October 2023]
- 2. <u>Oral:</u> "Breaking Symmetry Organocatalytic Enantioselective Synthesis of Natural and Unnatural Ladderanes" in <u>ICOC-2023</u> at Goa, India. [October 2023]

- 3. <u>Oral:</u> "Breaking Symmetry Organocatalytic Enantioselective Synthesis of Natural and Unnatural Ladderanes" in <u>Pfizer Symposium</u> at IISc Bangalore, India. [April **2023**]
- 4. <u>Poster:</u> "Breaking Symmetry Organocatalytic Enantioselective Synthesis of Natural and Unnatural Ladderanes" in <u>PMRF Annual Symposium</u>, IIT Madras, India. [February **2023**]

TEACHING EXPERIENCE

Served as a <u>Guest Lecturer</u> at the Department of Chemistry, School of Natural Sciences, **Adichunchanagiri University**, B.G Nagara, Karnataka-571448, India. [2019-2023]

RESEARCH REFERENCE LINKS

Featured Research Article on IISc Website: iisc.ac.in/symmetry-breaking-approach-to-a-unique-natural-product/

Highlighted Research Work on PMRF Website: www.pmrf.in/09-chemistry-commendable-research-works

For More Details, Please Visit My Research Website: sayanray6.wixsite.com/website

REFERENCES								
My Ph.D. Supervisor	My Ph.D. Thesis Examiner	Honorary Professor at IISc						
Prof. Santanu Mukherjee	Prof. Alakesh Bisai	Prof. Tushar Kanti Chakraborty						
Department of Organic Chemistry	Department of Chemical Sciences	Department of Organic Chemistry						
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