

Curriculum Vitae

Dr. Souvik Pal

Assistant Professor
Department of Chemistry
SRM Institute of Science and Technology Delhi NCR Campus
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Ph.D.

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Born: West Bengal, 08th August-1995, India

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Area of Interest

- Total Synthesis of biologically active natural products and drug molecules.
- Development of new catalytic asymmetric methods and unified approaches involving novel reactivity concepts to enable the rapid construction of architecturally complex chiral molecules and natural products from simple building blocks.
- Development of new synthetic methodologies for Carbon-Carbon and Carbon-Hetero atom multiple bond formation to construct biologically important optically pure molecules.
- Asymmetric Catalysis, Organo Catalysis
- Metal Catalyzed C-H activation and C-H & C-C functionalization

Educational qualifications

<p>Ph.D. (<i>Synthetic Organic Chemistry</i>) December 2018-April 2024 CPI : 9.5</p>	<p><u>Indian Institute of Science Education and Research</u> <u>Bhopal, India</u> Thesis Supervisor - Prof. Alakesh Bisai (IISER Kolkata) https://www.iiserkol.ac.in/~alakesh/alakesh.html Thesis co-supervisor - Prof. Aasheesh Srivastava (IISER Bhopal) Thesis Title: “Asymmetric Total Syntheses of Amaryllidaceae Alkaloids sharing Dihydrobenzofuran Scaffolds”</p>
<p>M.Sc. (Organic Chemistry) 2016- 2018 CGPA: 8.19 Grade: A++</p>	<p><u>Visva-Bharati University, West Bengal, India</u> M.Sc Thesis Title (<i>December 2017-May 2018</i>): “Visible light Organic Photoredox Catalyzed C-H Alkoxylation of Imidazopyridine with Alcohol” under supervision of Dr. Alakananda Hazra, (Department of Chemistry Visva-Bharati University) https://www.ahajra.com/ah</p>
<p>B.Sc. (Chemistry Hons.)</p>	

2013- 2016 CGPA: 7.64 Grade: A+	Siksha-Bhavana, Visva-Bharati University, West Bengal, India
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Professional Experience

April 2024 - October 2024	Research Associate in Department of Chemical Science, IISER Kolkata under supervision of Prof. Alakesh Bisai (IISER Kolkata) (works on total synthesis of atropodiastereomeric <i>amaryllidaceae</i> alkaloids)
October 2024 – July 2025 Industrial Experience	Research Scientist at JUBILANT BIOSYS a Contract Research, Development and Manufacturing Organization (CRDMO), in Greater Noida, India.
July 2025 Onwards Academic Experience	Assistant Professor at Department of Chemistry, SRM Institute of Science and Technology NCR Campus . NCR Campus Delhi, SRM IST Delhi, Meerut Rd, Modinagar, Uttar Pradesh, 201204, India

Technical Skills

- Multi-step synthesis of natural products using different routes and their characterization by various techniques like **NMR, Mass, IR, HPLC** (Waters e2695, Waters Arc HPLC, agilent), **Polarimeter** (Anton Paar), **ElectraSyn 2.0** (IKA), **High-pressure Hydrogenator, and Ozonolysis device** (FARADAY OZONE), **CH Instruments** (Electrochemical Workstation), **CombiFlash NextGen 300** (Teledyne), Microwave reactor (Anton Paar)
- Purification of compounds using Thin-Layer Chromatography, Column Chromatography, Fractional distillation, or Recrystallization methods.
- Capable of handling **moisture sensitive reagents** and **reaction in highly inert system, pyrophoric reactions** and cross **coupling reactions** using different metal catalysts like Pd, Rh, Cu, Pt, Ru.
- Skilled in laboratory management, during my research work trained junior PhD students and BS-MS students, Summer Intern students.
- Writing and presentation of research findings.
- **Industrial experience** in multistep synthesis.

Awards and Achievements

- Cleared **Joint CSIR-UGC (National Eligibility Test)** December 2017 and obtained CSIR-UGC LS with **All India Rank 27**.
- Qualified **IIT-JAM-2015** with **All India Rank 611** (Indian Institutes of Technology-Joint Admission Test for MSc).
- Awarded **Merit-Cum-Means Scholarship** July 2016 – June 2018 by the West Bengal Government.
- Received the prestigious **“Dr. D. S. Bhakuni Award”** for the oral Presentation on **“Recent Trends in Chemical Sciences (RTCS-2020)”** conference by the Indian Chemical Society during December 26 – 29, 2020.

- Received “**ACS Omega Award**” for best poster presentation on 27th CRSI National Symposium in Chemistry, organized by IISER Kolkata during 26-30th september 2021.
- Received “**1st Prize in Poster Competition**” for best poster presentation on “**4th Flow Chemistry & Natural Product Synthesis**” conference organized by NIPER Kolkata during 18-19th December 2023.
- Received “**Chemcomm Best Poster Award**” for best poster presentation on “**Fostering Catalysis for Societal Benefits (FCSB)-2024: Indo-French Conference**” organized by University of Hyderabad, during January 15-17, 2024 at Hyderabad.
- Received “**RSC Best Poster Award**” for poster presentation on “**Inter IISER-NISER Chemistry Meet (IINCM)-2024**” organized by IISER Kolkata during 23-23 February 2024 at IISER Kolkata.

Conference

- Participated in the "**Inter-Disciplinary Explorations in Chemistry-2018**" held at IISER Bhopal, December 2018.
- Poster Presented on “**Recent Trends in Chemical Sciences (RTCS-2020)**” conference by the **Indian Chemical Society**.
- Participated in the “**Recent Trends in Chemical Sciences (RTCS-2021)**” conference by the **Indian Chemical Society** and received Best Poster Award.
- Participated in the 5th Annual Symposium "**Interactions 2020**" Department of Chemistry of IISER Bhopal (6th – 7th February 2020).
- Presented Poster on **27th CRSI National Symposium in Chemistry**, organized by IISER Kolkata during 26-30th september 2021 and received Best Poster Award.
- Volunteered on the **Sustainability and Interdisciplinarity in Chemical Sciences 2023** organized by IISER Kolkata during 13-15 July 2023.
- Presented Poster on **EMERGING DIMENSIONS IN CHEMICAL SCIENCES (EDCS-23)** organized by University of Kalyani, during 28-29 March.
- Presented Poster on “**4th Flow Chemistry & Natural Product Synthesis**” conference organized by NIPER Kolkata during 18-19th December 2023 and received Best Poster Award.
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List of Publications

1. Majumder, S.; Yadav, A.; **Pal, S.**; Khatua, A.; Bisai, A. "Asymmetric Total Syntheses of (–)-Lycoramine, (–)-Lycoraminone, (–)-Narwedine, and (–)-Galanthamine". *J. Org. Chem.* **2022**, *87*, 7786. <https://doi.org/10.1021/acs.joc.2c00420%20>
2. Khatua, A.; Shyamal, P.; **Pal, S.**; Mondal, A.; Bisai, A. "Concise Total Syntheses of Bis(cyclotryptamine) Alkaloids via Thio-Urea Catalyzed One-Pot Sequential Michael Addition". *Chem. Commun.* **2022**, *58*, 3929. <https://doi.org/10.1039/D2CC01008A>
3. Babu, K. N.; **Pal, S.**; Khatua, A.; Roy, A.; Bisai, A. "Catalytic Decarboxylative Allylation of Enolcarbonates: Synthesis of Enantioenriched 3-Allyl-3'-Aryl 2-Oxindoles and Core Structure of Azonazine". *Org. Biomol. Chem.* **2022**, *20*, 127. <https://doi.org/10.1039/D1OB02048J>
4. Khatua, A.; **Pal, S.**; Das, M. K.; Bisai, V. "Asymmetric total syntheses of (–)-ar-turmerone, (–)-dihydro-ar-turmerone, (–)-ar-dehydrocurcumene, and (–)-ar-himachalene via a key allylic oxidative rearrangement", *Tetrahedron Lett.* **2021**, *73*, 153105. <https://doi.org/10.1016/j.tetlet.2021.153105>
5. **Pal, S.**; Khatua, A.; Das, M.K.; Bisai, V. "Concise asymmetric total syntheses of (–)-nuciferol, (–)-nuciferal, and (–)-dihydrocurcumene via Rh(I)-catalyzed boronic acid addition", *Tetrahedron Lett.* **2021**, *65*, 152790. <https://doi.org/10.1016/j.tetlet.2020.152790>
6. Khatua, A.; **Pal, S.**; Bisai, V. "Formal Total Syntheses of (+)- and (–)-ar-Macrocarpene via Rh(I)-BINAP Catalyzed Conjugate Addition", *Eur. J. Org. Chem.* **2020**, 2435. <https://doi.org/10.1002/ejoc.202000100>
7. **Pal, S.**; Majumder, S.; Niyogi, S.; Shyamal, P.; Mondal, D.; Das, B.; Bisai, A. "Total Syntheses of Atropodiastereomers of Heterodimeric *Amaryllidaceae* Alkaloids: Narcipavline and Narcikachnine", *(Chem. Sci.* **2024**, *15*, 19851-19857). <https://doi.org/10.1039/D4SC04361H>
8. Majumder, S.; Yadav, A.; **Pal, S.**; Mondal, A.; Bisai, A. "Total synthesis of (–)-2-oxo epimesembranol and (+)-dihydromaritidine", *RSC Advances*, **2024**, *14*, 29395-29403. <https://doi.org/10.1039/D4RA05275G>
9. Mondal, A.; **Pal, S.**; Khatua, A.; Mondal, A.; Bisai, A. "Concise Total Synthesis of (–)-Codeine", *J. Org. Chem.* **2024**, *89*, 12485-12497. <https://pubs.acs.org/doi/10.1021/acs.joc.4c01452>
10. Murmu, R.; Kundu, S.; Majhi, M.; **Pal, S.**; Mondal, A.; Bisai, A. "Catalytic Asymmetric Total Synthesis of Oridamycins A and B", *Chem. Commun.* **2024**, *60*, 9737-9740. [10.1039/d4cc03070b](https://doi.org/10.1039/d4cc03070b)
11. Niyogi, S.; Mondal, A.; Nandy, M.; **Pal, S.**; Khatua, A.; Bisai, A. "Total Synthesis (+)-Dixiamycin C via Ni(II)-Photoredox Aryl Amination", *Organic Letters* **2024**, *26*, 8643 <https://doi.org/10.1021/acs.orglett.4c02436>.
12. Jana, D. G.; Noskar, S.; **Pal, S.**; Niyogi, S.; Bisai, A. "Asymmetric Synthesis of Taiwaniquinone H via a Late-Stage Oxidative Decarboxylation", *(J. Org. Chem.* **2025**, *90*, 517. <https://doi.org/10.1021/acs.joc.4c02448>.

13. Ahsan, S.; Nandy, M.; Ahlawat, S.; **Pal, S.**; Bisai, A.; Paul, A. "Hydrogen Bonding Enabled C-H Polarization for Multi-Site Concerted Electron-Proton Transfer in Electrochemical Dimerization of β -Ketoester". (*J. Org. Chem.* **2026**, *91*, 1, 316–332. <https://doi.org/10.1021/acs.joc.5c02396>)
14. Majumder, S.; Mondal, D.; Mondal, A.; **Pal, S.**; Bisai, A.; "Total Synthesis of Naturally Occurring Amaryllidaceae Alkaloids, (–)-Elwesine and (–)-*epi*-crinine." (*Just Accepted in J. Org. Chem.* **2025** <https://doi.org/10.1021/acs.joc.5c01480>)

Declaration

I do hereby declare that the above-mentioned information is correct to the best of my knowledge.

Date: 22nd January, 2026
Place: ModiNagar, India



(Dr. Souvik Pal)