Dr. Biswajit Maji

Associate Professor,
Department of Chemistry,
Indira Gandhi National Tribal University,
Amarkantak, M. P.; India.
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Personal Details

Nationality	:	India
Personal	:	Male, Married and born on 2nd March, 1981

Professional Experience

Nov 2024 - Present	Associate Professor, IGNTU, Amarkantak, MP - 484887
Oct 2012 – Oct 2024	Assistant Professor, IGNTU, Amarkantak, MP - 484887
Jan 2010 – Sept 2012	Post Doctoral Research Fellow, SPMS, CBC, NTU - Singapore

Academic Details

2004–2009	Ph.D., Synthetic Organic Chemistry, IIT–Kharagpur. **Thesis Title:** Friedel–Crafts Reactions with Alkenes, Alkynes and Aziridines: Application to Catalytic and Enantioselective Synthesis of 2–Amino–1–aryltetralins Supervisor: **Prof. Saumen Hajra and Prof. Dipak Ranjan Mal** **Best Thesis Award:** Elli Lilly Outstanding Thesis Award 2010.
2002–2003	M.Sc., Organic Chemistry, Vidyasagar University, West Bengal **79.8 %; Organic Chemistry Specialization;** **1st Class 1st rank (Gold Medal)**
1999–2001	B. Sc., Chemistry, Midnapore College, West Bengal **63%; Chemistry (Hons), Physics and Mathematics**;
1996–1998	Higher Secondary (12th Standard), Mahishadal Raj High School **74.3%; Mathematics, Physics, Chemistry, Bioscience, English, Bengali**
1994–1996	Secondary (10th standard), Mahishadal Raj High School **78%; Mathematics, Physical Science, Life Science, Bengali, English.**

Awards & Honors

- Bronze Medal for 1st Class in B. Sc. (Midnapore College, VU, **2001**)
- Gold Medal for 1st class 1st rank in M. Sc. (Vidyasagar University, West Bengal, **2003**)
- CSIR-UGC NET-JRF (June' **2003**).
- Elli Lilly Outstanding Thesis Award (**2010**)
- INSPIRE Faculty Award (**2013**)
- Life Member (CRSI); No: LM 1780; Life Member (ICC); No: LF 1692
- President's Inspire Teacher Recognition (**2015**)
- Fellow of Indian Chemical Society (**2019)**

Research Statement (Project Details)

Project I

Seed Project by the Institution (IGNTU) after the evaluation of expert members (2016–2021)

Project Title: Halogen–induced Friedel–Crafts alkylation: Synthesis of 1, 2–halofunctionalized compounds

Amount: 5.0 Lakhs
Agency: IGNTU
Status: Completed

Project II

Project: INSPIRE PROJECT (INSPIRE Faculty Scheme) from DST, INDIA

Title of the Project:
(A Catalytic and Enantioselective Reactions with Highly Reactive Oxacarbenium ion Intermediates and Azomethine Imines: Easy access to Chiral Isochromans and Tetrahydroisoquinolines).

Amount: 35.0 Lakhs (2014–2019)
Agency: DST
Status: Completed

Project III

Project Title: Amphiphilic guar gum micelles for solving bioavailability problems of poorly soluble drugs

Amount: 10.5 Lakhs (2020–2021)
Agency: DBT
Status: Completed

Project IV

Title of the Project:
(A Novel Approach for the Synthesis of Oxindole bearing a 3–Fluorinated Quaternary Stereogenic Center)

Agency: DST–SERB (2021–2023)
Amount: 43.27 Lakhs
Status: Completed

Teaching Statement

I am deeply committed to teaching at both undergraduate and postgraduate levels. For me, education is not merely about delivering content, but also about inspiring students to think creatively and to recognize their role in addressing issues of national and global importance.

As an educator, I see my role not just as a transmitter of knowledge, but as a facilitator of a dynamic learning environment. I strive to create a congenial and inclusive classroom atmosphere where every student feels encouraged to express their ideas, challenge assumptions, and engage in meaningful discussions. This kind of active and respectful exchange fosters lifelong learning and nurtures the development of future leaders.

Effective teaching, in my view, begins with a well-structured syllabus that clearly outlines the academic and practical objectives of the course. The syllabus should serve as a roadmap for students, demonstrating how course content and assessments are aligned with these objectives. I invest time and thought into designing courses that integrate theoretical foundations with real-world applications, making learning both rigorous and relevant.

To ensure a deeper understanding of the material, I employ a variety of teaching methods, including traditional blackboard instruction, multimedia presentations, visual aids such as pictures and diagrams, and interactive discussions. These varied approaches help address the diverse learning styles of students and promote engagement.

Equally important to the teaching process is the commitment to equity and respect. I make it a point to treat all students with fairness and dignity, regardless of their age, gender, nationality, intellectual ability, or appearance. Creating a safe and supportive environment allows every student to reach their full potential.

In summary, teaching is not just a responsibility but a passion. I aim to not only impart knowledge but also to inspire, challenge, and empower my students to become thoughtful, informed, and responsible citizens—capable of making meaningful contributions at both national and international levels.

Teaching Interest and plan

Following topics are my teaching interest.

(a) Reagents in Organic Synthesis

(c) State of art the retro–synthetic strategy for synthesis

(d) Asymmetric catalysis and organic synthesis

(e) Bioorganic Chemistry

(f) Spectroscopy: Structure Determination of Organic Compounds by Spectroscopic Method.

(g) Metal-free sustainable approaches in organic synthesis (Organocatalysis)

Research Publications

List of Publications

1. Enantioselective Synthesis of 2-Nitrotetralin Derivatives via NHC-Catalyzed Homoenolate Reactions. Pratap, A.; **Maji, B**. ***Asian J. Org. Chem.*** **2025**, Advance article (https://doi.org/10.1002/ajoc.202500588). First published on July 9, 2025.
2. A stepwise dearomatization/nitration/enantioselective homoenolate reaction of quinolines to construct C3-nitro-substituted tetrahydroquinolines. Pratap, A.; **Maji, B.** ***Org. Biomol. Chem.*** **2025,** *23*, 16, 3812. (DOI: DOI: https://doi.org/10.1039/D5OB00247H)**.** First Published through online March 18, 2025.
3. Oxidized ionic polysaccharide hydrogels: Review on derived scaffolds characteristics and tissue engineering applications. Maiti, S, **Maji, B.;** Badwaik, H.; Pandey, M. M.; Lakra, P.; Yadav, H. ***Int. J. Biol. Macromol.*** **2024**, *280*, Part 4, 136089. (DOI: https://doi.org/10.1016/j.ijbiomac.2024.136089). First Published through online November, 2024.
4. K_3PO_4–Mediated Synthesis of Chromeno–[3, 4-c] isoxazole From 3–Nitro–2*H*–chromene and *α*–Chloro Aldehyde via Michael addition/C–Cl bond cleavage/deformylation as Key Fragmentation Sequences. Pratap, A.; Shukla, P. M.; Giri, S.; **Maji, B**. ***Adv. Synth. Catal.*** **2024**, *366*, 19, 4122-4131 (DOI: https://doi.org/10.1002/adsc.202400578). First Published through online July 12, 2024.

5. Novel succinoylated carboxymethyl guar gum nanocarriers of glimepiride for controlling type-2 diabetes. Yadav, H.; **Maji, B**. and Maiti, S. ***Med. Nov. Technol. Devices***, **2024**, 100309. (DOI: https://doi.org/10.1016/j.medntd.2024.100309). First published through online Date: 29 May, 2024.

6. N-Heterocyclic Carbene–Catalyzed Kinetic Resolution of 3–Nitro–1,2–dihydroquinolines: Asymmetric Synthesis of All C2–, C3– and C4–Functionalized Tetrahydroquinolines. Shukla, P. M.; Pratap, A.; **Maji, B.** ***Eur. J. Org. Chem***. **2024**, *27,* 17, e202301272 (DOI: https://doi.org/10.1002/ejoc.202301272); First Published Date: 13 March 2024.

7. DIBAL-H-mediated N-deacetylation of tertiary amides: synthesis of synthetically valuable secondary amines. Shukla, P. M.; Pratap, A.; **Maji, B.** ***Org. Biomol. Chem***., **2024**, *22*, 3, 501-505. DOI: https://doi.org/10.1039/D3OB01660A; First Published Date: 12 Dec 2023. ***(Highlighted by Organic–Chemistry Portal, March 31, 2025)***

8. Progress on green crosslinking of polysaccharide hydrogels for drug delivery and tissue engineering applications. Maiti. S.; **Maji, B**.; Yadav, Y. ***Carbohydr. Polym.*** **2023**, *326*, 121584. DOI: https://doi.org/10.1016/j.carbpol.2023.121584; First Published Date: 15 November, 2023.

9. HFIP-promoted halo-carbocyclizations of *N*- and *O*-tethered arene–alkene substrates to access all halo (X = Br, I, Cl)-functionalized tetrahydroquinoline and chroman cores. P. M. Shukla, A. Bhattacharya, A. Pratap, A. Pradhan, P. Sinha, T. Soni and **B. Maji**. ***Org. Biomol. Chem.,*** **2022**, *20*, 41, 8136-8144. DOI: https://doi.org/10.1039/D2OB01597H; First Published Date: 04 October, 2022.

10. N-Heterocyclic carbene-catalysed homoenolate addition reaction to 3-cyano-2-imino-2Hchromenes: synthesis of C4-functionalized 2-amino-3-cyano-4H-chromene. P. M. Shukla, A. Pratap, **B. Maji**. ***Org. Biomol. Chem.,*** **2022**, *20*, 42, 8203-8208. DOI: https://doi.org/10.1039/D2OB01447E; First Published Date: 06 October, 2022.

11. Haliranium ion–Induced Intermolecular Friedel–Crafts Alkylation in HFIP: Synthesis of β,β–Diaryl α–Halo Carbonyl Compounds. Bhattacharaya, A; Shukla, P. M. **Maji, B**. ***Eur. J. Org. Chem.*** **2021**, 2021, 33, 4737–4749. DOI: https://doi.org/10.1002/ejoc.202100823; First Published Date: 07 September, 2021.

12. Highly Selective and Catalytic C−N Bond Cleavage of Tertiary Sulfonamides: Scope and Mechanistic Insight. Bhattacharaya, A; Shukla, P. M.; **Maji, B.** ***ACS Omega*** **2021**, *6*, 29, 18988–19005. DOI: https://doi.org/10.1021/acsomega.1c02276; First Published Date: 16 July, 2021.

13. Chemical modification of xanthan gum through graft copolymerization: Tailored properties and potential applications in drug delivery and wastewater treatment. **Maji, B;** Maity, S. ***Carbohydr. Polym.*** **2021**, *251*, 117095. DOI: https://doi.org/10.1016/j.carbpol.2020.117095; First Published Date: 16 September, 2020.

14. Xanthan gum derivatives: review of synthesis, properties and diverse applications. Patel, J.; **Maji, B.;** Moorthy, N. H. S. N.; Maiti, S. ***RSC Adv***., **2020**, *10*, 45, 27103–27136. DOI: https://doi.org/10.1039/D0RA04366D; First Published Date: 21 July, 2020.

15. Synthesis of Chromans and Kinetic Resolution of 2–Aryl–3–Nitro–2*H*–Chromenes via NHC–bounded Azolium Homoenolate Pathway. Bhattacharya, A; Shukla, P. M.; Kaushik, L. K. **Maji, B**. ***Org. Chem. Front***., **2019**, *6*, 20, 3523–3529. DOI: https://doi.org/10.1039/C9QO00868C; First Published Date: 15 August, 2019 ***(Selected for Cover page).***

16. Synthesis of Chromans and Kinetic Resolution of 2–Aryl–3–Nitro–2*H*–Chromenes via NHC–bounded Azolium Homoenolate Pathway. Bhattacharaya, A; Shukla, P. M.; Kaushik, L. K. **Maji, B**. ***Org. Chem. Front***., **2019**, *6*, 3438–3438. DOI: 10.1039/C9QO90093D (Inside Front Cover)

17. Stereoselective Haliranium–, Thiiranium– and Seleniranium Ion–Triggered Friedel–Crafts–Type Alkylations to Polyene Cyclizations. **Maji, B.** ***Adv. Synth. Catal.*** **2019,** *361*, 15, 3453–3489. DOI: https://doi.org/10.1002/adsc.201900028; First Published Date: 25 March, 2019.

18. *N*–Heterocyclic Carbene–catalyzed Reactions with Nitroalkenes: Synthesizing Important Building Blocks. **Maji. B.** ***Asian J. Org. Chem***. **2018,** *7*, *1*, 7–40. DOI: https://doi.org/10.1002/ajoc.201700520; First Published Date: 07 November, 2017 ***(Selected as a hot topic)***

19. Halogen Induced Friedel–Crafts Alkenylation Reactions with Haloalkynes: Direct Access to *gem*–1,1–Dihaloalkenes. **Maji, B**.; Bhattacharya, B.; Hazra, S.***ChemistrySelect***, **2017**, *2*, 32, 10375–10378. DOI: https://doi.org/10.1002/slct.201702265; First Published Date: 13 November, 2017.

20. $Fe(OTf)_3$ catalyzed Friedel–Crafts Reactions of Benzenoid Arenes with α,β–Unsaturated carbonyl Compounds: Easy Access to 1,1–Dioarylalkenes. Bhattacharya, A.; Shukla, P. S.; **Maji. B.** ***R. Soc. Open sci.*** **2017**, *4*, 10, 170748. DOI: https://doi.org/10.1098/rsos.170748; First Published Date: 25 October, 2017.

21. N–Heterocyclic Carbene–Catalyzed Homoenolate–Addition Reaction of Enals and Nitroalkenes: Asymmetric Synthesis of 5–Carbon Synthon δ–Nitro esters. **Maji, B**.; Ji, L., Wang, S., Vedachalam, S.; Ganguly, R.; Liu, X–W. ***Angew. Chem. Int. Ed.*** **2012,** *51,* 33, 8276–8280. DOI: https://doi.org/10.1002/anie.201203449; First Published Date: 23 July, 2012. ***(Highlighted by Organic–Chemistry Portal, July 22, 2013)***

22. N–Heterocyclic Carbene–Mediated Oxidative Esterification of Aldehydes: Ester Formation and Mechanistic Studies. **Maji, B**.; Vedachalam, S.; Ge, X.; Cai, S.; Liu, X–W. ***J. Org. Chem.*** **2011**, *76*, 9, 3016–3023. DOI: https://doi.org/10.1021/jo200275c; First Published Date: 31 March, 2011. ***(Appeared in a featured article)***

23. N–Heterocyclic Carbene Catalyzed Intramolecular Hydroacylation of Activated Alkynes: Synthesis of Chromones. Vedachalam, S.; Wong, Q–L.; **Maji, B**.; Zeng, J.; Ma, J.; Liu, X–W. ***Adv. Synth. Catal.*** **2011**, *353,* 2-3, 219–225. DOI: https://doi.org/10.1002/adsc.201000828; First Published Date: 08 February, 2011. ***(Selected as a hot topic)***

24. A Catalytic and Enantioselective synthesis of *trans*–2–Amino–1–aryltetralins. Hajra, S.; **Maji, B.;** Mal, D. ***Adv. Synth. Catal.*** **2009**, *351*, 6, 859–864. DOI: https://doi.org/10.1002/adsc.200800603; First Published Date: 15 April, 2009. ***(Most Accessed Article)***

25. A One–Pot Stereoselective Synthesis of *trans*–1–Amino–2–Aryltetralins from 2–Arylethyl Styrenes. Hajra, S.; **Maji, B.**; Sinha, D.; Bar, S. ***Tetrahedran Lett.*** **2008**, *49*, 25, 4057–4059. DOI: https://doi.org/10.1016/j.tetlet.2008.04.056; First Published Date: 12 April, 2008.

26. Stereoselective One–Pot Synthesis of Oxazolines. Hajra, S.; Bar, S.; Sinha, D.; **Maji, B**. ***J. Org. Chem.*** **2008**, *73*, 11, 4320–4322. DOI: https://doi.org/10.1021/jo8003937; First Published Date: 07 May, 2008.

27. Samarium triflate–catalyzed Halogen–promoted Friedel–Crafts Alkylation with Alkenes. Hajra, S.; **Maji, B.**; Bar, S. ***Org. Lett.*** **2007**, *9*, 15, 2783–2786. DOI: https://doi.org/10.1021/ol070813t; First Published Date: 22 June, 2007.

28. Design and Synthesis of Chiral *N*–Chloro–imidodicarbonates: Application to Asymmetric Chlorination of Silyl enol Ethers. Hajra, S.; Bhowmick, M.; **Maji, B.**; Sinha, D. ***J. Org. Chem.*** **2007**, *72*, 13, 4872–4876. DOI: https://doi.org/10.1021/jo070614n; First Published Date: 2 June, 2007.

29. Lewis Acid Catalyzed Intramolecular Halo–Arylation of Tethered alkenes using NXS as a Halonium Source: A General Method for the Synthesis of Chromanons, Chromans, Quinolones, Tetrahydroquinolines and Tetralins. Hajra, S.; **Maji, B.;** Karmakar, A. ***Tetrahedron Lett.*** **2005**, 46, **49,** 8599–8603. DOI: https://doi.org/10.1016/j.tetlet.2005.09.170; First Published Date: 21 October, 2005.

Book / Chapter in Edited Book

1. Book Chapter *"Introduction to natural polysaccharides"* in "Functional Polysaccharides for Biomedical Applications" (**Elsevier Publisher)**.

2. Organic Chemistry, 4th Edition by David R. Klein

   Five Chapters revision, additional content development and related problems were incorporated:

   A. Alpha Carbon Chemistry: Enols and Enolates

   B. Amines

   C. Introduction to Organometallic Compounds

   D. Carbohydrates

   E. Amino acids, Peptides and Proteins

Symposium and conference attended

- National Symposium on Organic Chemistry–III (NSOC–III): Recent Trends and Perspectives held at the Department of Chemistry, Jadavpur University, Kolkata–700032, India (February 22 and 23, 2006).
- Fifth One Day National Symposium in Chemistry held in the department of Chemistry, Indian Institute of Technology, Kharagpur, India (February 26, 2006). Topic of the presented **poster**: "***Lewis acid catalyzed 1, 2–halofunctionalization of alkenes***".
- **Third J–NOST symposium** held at Guru Nanak Dev University, Amritsar, India (15^{th} –18^{th} November, 2007). Delivered a **short lecture** on the topic entitled "***Halogen–Promoted Highly Regio– and Stereoselective Intra– and Intermolecular Friedel–Crafts (F–C) Reactions with Alkenes and Alkynes***".
- Sixth One Day National Symposium in Chemistry held in the department of Chemistry, Indian Institute of Technology, Kharagpur, India (November 8, 2008). Topic of the presented **poster**: "***Catalytic and Enantioselective Aziridination and Intramolecular Arylation towards Synthesis of 2–Amino–1–aryltetralins: Asymmetric Synthesis of Dopamine D1 Agonists***".
- National Conference on Recent Trends in Chemical Sciences: Organized by Pt. Ravishankar Shukla University, Raipur (C. G.); **Topic: Homoenolate Strategy: Application to Synthesis of Chiral delta Lactams**; Presented a paper (TALK): **2^{nd} prize winner for best oral presentation; January 23–25, 2014. Author: Biswajit Maji.**
- **33^{rd} Annual National Conference (15^{th} –17^{th} December, 2014),** Indian Council of Chemists organized by **Department of Applied Chemistry, Indian School of Mines, Dhanbad–826004** (Jharkhand). Presented a paper in Organic Chemistry Section. Dr. Maji has been awarded the **"Young Scientist Award"** for the best Oral Presentation.
- "Frontiers in Ethnomedicinal Research: Traditional to translational", **March 09–11, 2014**: A Workshop *cum* Seminar; Paper presented at Indira Gandhi National Tribal University, Amarkantak, M.P. **Authors: Aditya Bhattacharya and Biswajit Maji***
- In residence Programme at Rashtrapati Bhavan during **06–12 June, 2015**. **President's Inspire Teacher Award (2015)**
- **"Recent Developments and Applications in Chemical Sciences"** A National Conference organized by Department of Chemistry, NIT–Agartala and ICS–Kolkata on **20–21 May, 2016**.

Presented a paper the title entitled as "Friedel–Crafts Reaction: Simplest route for the synthesis of 1,1–diarylalkane and 1,1–diarylalkenes". Authors: Aditya Bhattacharya and Biswajit Maji*.

- ICOS–2016, December 11–16, 2016, participated/presented a paper in International Conference which was held at IIT, Mumbai. Biswajit Maji.

- **21st CRSI National Symposium in Chemistry**, **July 14–16, 2017** and CRSI–ACS Symposium in Chemistry: Poster presented on the topic entitled as "NHC–catalyzed Homoenolate addition reaction with Nitrochromenes: Application towards the synthesis of Doxanthrine Analogues" [21–CRSI NSC 2017], IICT Hyderabad. Authors: Aditya Bhattacharya and Biswajit Maji*.

- **22nd CRSI National Symposium in Chemistry February 2 – 4, 2018 and 12th CRSI–RSC** Symposium in Chemistry, Pt. Ravishankar Shukla University, Raipur, Poster presentation on the topic entitled as Halogen Induced Friedel–Crafts Alkenylation Reactions with Haloalkynes: Direct Access to gem–1,1–Dihaloalkenes. Authors: Aditya Bhattacharya and Biswajit Maji*.

- **Recent Development of Chemical Sciences–2018 (RDCS–2018) Feb 23–25, 2018** organized by the Department of Chemistry, **Indira Gandhi National Tribal University**, Amarkantak, MP. **Poster:** N–Heterocyclic Carbene–catalyzed Enantioselective Homoenolate addition and Kinetic Resolution of 2–Aryl–3–Nitrochromenes, Authors: Aditya Bhattacharya, Biswajit Maji*.

- **Recent Development of Chemical Sciences–2018 (RDCS–2018) Feb 23–25, 2018** organized by the Department of Chemistry, **Indira Gandhi National Tribal University**, Amarkantak, MP. **Poster:** Friedel–Crafts Alkylation Reaction of Benzenoid Arenes with α, β–unsaturated Esters and Ketones: A Stereoselective Synthesis of 1,1–Diarylalkanes: Mechanism Study. Authors: Pushpendra Mani Shukla, Biswajit Maji*.

- **Organic Chemistry Symposium** (OCS 2019) **Sept–13–14, 2019** at **Hyatt Regency, Lucknow;** jointly organized by the Department of Chemistry **IISER Bhopal** and **IIT–Kanpur**. Poster Presenter: "Carbene–Catalyzed Kinetic Resolution of 2–Aryl–3–Nitro–2H–Chromenes" Authors: Biswajit Maji*, Aditya Bhattacharya, Pushpendra Mani Shukla.

- **International Seminar:** "Recent Advances in Chemistry and Material Sciences" in commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray in the month of **August, 2020** organized by Indian Chemical Society, Kolkata, West Bengal. Poster: HFIP–Mediated Bromocarbocyclization of Tethered–Styrenyl–based Alkenes: Direct Access to Bromo–functionalized Carbocycles and Heterocycles. Authors: Aditya Bhattacharya, Biswajit Maji*.

- **International Seminar:** "Recent Advances in Chemistry and Material Sciences" in commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray in the month of **August, 2020** organized by Indian Chemical Society, Kolkata, West Bengal. ORAL Presentation: *N*–Heterocyclic Carbene–Catalyzed Stereoselective Homoenolate Addition Reaction to 3–Cyano–2–imino–2H–chromenes: Synthesis of 2–Amino–3–cyano–4H–chromenes. Authors: Pushpendra Mani Shukla, Biswajit Maji*.

- **"International Seminar** on Recent Advances in Chemistry and Material Sciences (RACMS-2021)", Young Scientist Conclave (YSC-2021) and Student Science Meet (SSM-2021); Dated on August 01-08, 2021. Title: Carbene-Catalyzed Kinetic Resolution of Racemic Nitroolefins Embedded in Chromane and Tetrahydroquinoline Structures. Organized by Indian Chemical Society, Kolkata.
- **International Webinar/Seminar:** Title: Carbene-Catalyzed Kinetic Resolution of Racemic Nitroolefins Embedded in Chromane and Tetrahydroquinoline Structures, Recent Trends in Chemical Sciences at the Biointerface (**RTCSB - 2021**), **October 26 and 27, 2021**. Organized by Department of Chemistry, IGNTU, Amarkantak, MP 484887, India. Authors: Biswajit Maji*, Pushpendra Mani Shukla.
- Expert Talk (Invited Lecture) on Friedel-Crafts Alkylation Reactions, **12th January, 2022** at Dr. CV Raman University, Chhattisgarh. **Title of the Topic: Friedel-Crafts Alkylations**. Author: Biswajit Maji
- Acted as a Judge for the Research Scholar Oral Presentation in **"International Seminar on Recent Advances in Chemistry and Material Sciences (RACMS-2022)"** – Organized by Indian Chemical Society with the association of Bangladesh Chemical Society on July 30-31 and Aug 2-3, 2022.

- Title of the talk: **Carbene-Catalyzed KR and Enantioselective Homoenolate Reactions with Nitroalkenes Embedded in Benzo-fused Heterocycles**. SERB-CORE project under SSR Scheme, Department of Chemistry, IGNTU-Amarkantak, MP-484886. Date: **3rd April, 2023**. Author: Biswajit Maji
- Title of the Talk: **Basics of IR Spectroscopy and HPLC: It's Biomedical Applications**. DST-STUTI Training Program (IGNTU-Amarkantak); Organized by Department of Zoology, IGNTU. **8th February, 2023**. Author: Biswajit Maji
- Title of the Popular Talk: **Asymmetric. Organo. Catalysis** delivered in the one-day National Seminar on" Catalytic Diversity in Science for Sustainable Development" Organized by Govt. College Pushparajgarh, Anuppur, MP Department of Chemistry with collaboration with IUPAC on 27 Feb, 2024.
- Title of the Talk: Nitroalkenes in the synthesis of heterocycles and carbocycles via "homoenolate and enolate"-based strategies. Invited Talk organized by Department of Chemistry IISER-Bhopal and IIT Indore @IISER Bhopal on 04 May, 2024. Seminar/Conference details: Frontiers in Chemistry – CRSI Bhopal/Indore Local Chapter.

Details of UG or PG and PhD Students Guidance (Ongoing)

Serial No	Name of the Student (Enrollment Number)	UG/PG/ PhD	Title of the Thesis/Research Area	Year of Joining	Co-investigators
1	Aniruddh Pratap Enrollment No.- 2001364011	PhD	Enolate and Homoenolate Chemistry with Nitroalkenes Embedded in Heterocycles and Carbocycles	**2021**	**NO**
2	Tanishk Soni Enrollment No.-	PhD	Revisiting the Cloke–Wilson Rearrangement: A Versatile Approach for the Synthesis of Medicinally Relevant Heterocycle	**2025**	**NO**
3	Gundeep Ekka Enrollment No.-	PhD	Dearomative Strategies for Quinoline/Isoquinoline Functionalizations	**2025**	**NO**

Details of UG or PG and PhD Students Guidance (Awarded)

Serial No	Name of the Student (Enrollment Number)	UG/PG/ PhD	Title of the Thesis	Year of Completion	Co-investigators
1	Aditya Bhattacharya Enrollment No.- 16165005	PhD	Friedel-Crafts Reactions with Alkenes: Stereoselective Synthesis of 1,1-Diarylalkanes	**2021**	**NO**
2	Pushpendra Mani Shukla Enrollment No.- 1801364002	PhD	NHC-Catalyzed Kinetic Resolution of 2H-Chromenes and 1,2-Dihydroquinolines and Diastereoselective Synthesis of 2-Amino-4H-Chromenes	**2024**	**NO**
3	Pushpendra Mani Shukla Enrollment No.- 15218004	PG	*N*–Heterocyclic Carbene–catalyzed diastereoselective homoenolate reaction with nitrochromenes: Application to synthesis of chroman derivatives of biological importance	**2016-17**	**NO**
4	Sangeeta Enrollment No.- 15218005	PG	A recent Review: N–heterocyclic carbene–catalyzed reactions with nitroolefins	**2016-17**	**NO**
5	Lalit Kumar Kaushik Enrollment No.- 16590014	PG	*N*–Heterocyclic Carbene–catalyzed Enantioselective homoenolate addition to 3–nitro–2–aryl–2*H*–chromenes: Application to synthesis of chromans	**2017–18**	**NO**
6	Khushboo Singh Enrollment No.- 16590013	PG	A review on halogen–induced Friedel–Crafts alkylation and alkenylation reaction with alkene and alkynes	**2017–18**	**NO**
7	Jalaj Kumar Enrollment No.- 17690007	PG	*N*–Heterocyclic Carbene–Catalyzed Homoenolate Addition to 2–Iminochromenes: Application to synthesis of 2–Amino–4*H*–Chromenes.	**2018–19**	**NO**
8	Poonam Singh Enrollment No.- 17690011	PG	Halogen–Bond–Catalyzed Friedel–Crafts Reaction of Benzenoid Arenes with α, β–Unsaturated Carbonyl Compounds: Easy Access to 1,1–Diarylalkanes.	**2018–19**	**NO**

9	Rahul Dwivedi Enrollment No.- 1801164014	PG	Co–operative Catalytic Effect towards the synthesis of 3–Cyano–2–Amino–4H–Chromenes via Homoenolate pathway	**2019–20**	**NO**
10	Puspita Sinha Enrollment No.- 1801164013	PG	HFIP–Mediated Intramolecular Bromocarbocyclization of Alkenes: Direct Access to Bromo–Functionalized Tetrahydroquinolines	**2019–20**	**NO**
11	Aniruddh Singh Enrollment No.- 1801164003	PG	Carbene–Catalyzed Kinetic Resolution of 3–Nitro–1,2–dihydroquinolines via the NHC–bound Homoenolate Pathway	**2019–20**	**NO**
12	Sanju Rathore Enrollment No.- 1901219013	PG	A short review: Strategies for the Kinetic Resolution of Benzo-Fused-6-Membered-N-Heterocycles	**2020-21**	**NO**
13	Priya Dubey Enrollment No.- 1901219010	PG	A short review: Organocatalytic Kinetic Resolution of Racemic Indolines	**2020-21**	**NO**
14	Rohit Garg Enrollment No.- 2001219015	PG	HFIP-Promoted Synthesis of Bromo-functionalized 2,5-Disubstituted Tetrahydropyran Through a cascade Bromiranium ion and Oxocarbenium Ion Intermediates	**2021-22**	**NO**
15	Tanishk Soni Enrollment No.- 2001219019	PG	Synthesis of Partial Saturated Aza(n)helicene Through Halogen-Induced HFIP-Promoted Friedel-Crafts as Key Step	**2021-22**	**NO**
16	Shubham Kumar Chaudhary Enrollment No.- 2101219019	PG	A catalytic and enantioselective sulfa-Michael addition reaction to nitroalkenes using NHC-catalyst as non-covalent chiral templates	**2022-23**	**NO**
17	Kartik Singh Enrollment No.- 2101219008	PG	DIBAL-H-mediated N-Deacetylation of Tertiary Amines	**2022-23**	**NO**
18	Satyasain Kaanar Enrollment No.- 2101219017	PG	An Organocatalytic Asymmetric Synthesis of 3,3-di-fluorooxindoles Bearing Quaternary Tertiary Centres	**2022-23**	**NO**
19	JP Krushna Ghana Enrolment No. – 2201219002	**PG**	**K_3PO_4-mediated facile and straightforward cyclopropane-fused chromane synthesis from**	**2023-24**	**NO**

			3-nitro-2*H*-chromene and α-iodo aldehyde		
20	Dhananjay Nayak Enrolment No. – 2201219002	PG	Carbene-Catalysed Homoenolate Addition Reaction to 3-Nitro-4*H*-Chromene: Synthesis of C_2-Functionalized 3-Nitro-4*H*-Chroman	**2023-24**	**NO**
21	Manas Rana Enrolment No.– 2201219017	PG	K_3PO_4 Mediated straight-forward chromeno-isoxazoles-4-one synthesis from a reaction between 3-nitro-coumarin and $\boldsymbol{\alpha}$-chloro aldehyde	**2023-24**	**NO**
22	Sushant Kumar Enrolment No.– 2301219013	PG	K_3PO_4-mediated facile and straightforward cyclopropane-fused chromane synthesis from 3-nitro-2H-chromene and $\boldsymbol{\alpha}$-iodo aldehyde	**2024-25**	**NO**
23	Sadaram Nishad Enrolment No.– 2301219010	PG	Base–Mediated Facile Synthesis of C4-functionalized N-acetyl-3-nitroso-(2*H*)-quinoline from N-acetyl-3-nitro-(2*H*)-quinoline and α–Chloro Aldehyde via Michael addition/C–Cl bond cleavage as Key Steps	**2024-25**	**NO**
24	Anshul Prajapati Enrolment No.- 2101128003	UG	Synthesis of 2-Nitrobenzofuran Derivatives	**2023-24**	**NO**
25	Arpita Tiwari Enrolment No.- 2101128004	UG	Regioselective Nitration of Olefins with *t*BuONO and TEMPO: Direct Access to Nitroolefins under Metal Free Conditions.	**2023-24**	**NO**
26	Shraddha Patel Enrolment No.- 2101128018	UG	Synthesis of N-Protected 3-Fluoro-2-Oxiindole Derivatives.	**2023-24**	**NO**
27	Kavita Enrolment No.- 2101128010	UG	Synthesis of N-acetyl-1,2-dihydroquinoline derivatives	**2024-25**	**NO**

Membership/Fellowship of Academies/Institutions/Professional Societies

- Life Member (CRSI); No: LM 1780
- Life Member (ICC); No: LF 1692
- American Chemical Society Member (No: 30886508)
- Life Member (Indian Chemical Society); (No: F/8182)