Dr. Biplob Borah

PROFILE

I have completed my Ph.D. under the supervision of Dr. L. Raju Chowhan, Assist. Prof. at the School of Applied Material Sciences, Centre for Applied Chemistry, Central University of Gujarat (Currently Associate Prof. JNU-New Delhi). My core research interests include Synthetic Organic Chemistry, Organocatalysis, Asymmetric Synthesis, Heterocyclic chemistry, Photochemistry, and Mechanochemistry.

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EDUCATION

- Ph.D. in Organic Chemistry from Central University of Gujarat, December 2023.
- M.Sc. in Industrial Chemistry with C.G.P.A 8.96, Central University of Gujarat, Gandhinagar-382030, Gujarat, India
- B.Sc in Chemistry with C.G.P.A 7.9, Nowgong College, Gauhati University, Assam, India
- H.Sc. (Physics, Chemistry, Mathematics, English, MIL, Biology) with 82.80%, AHSEC, Assam, India
- H.S.L.C, with 70.50% from P.G.H.T. High School, under SEBA, Assam, India

TECHNICAL SKILLS

- Operating Bruker 500 MHz Fourier-Transform Nuclear Magnetic Resonance (FT-NMR).
- Handling Mestrenova Software for NMR spectroscopy analysis
- Operating PerkinElmer Fourier Transform Infrared (FT-IR) spectroscopy
- Operating Agilent Quadrupole Time of Flight Liquid Chromatography/Mass Spectrometry (Q-TOF LC/MS).
- Handling of various organic synthesis, isolation, and characterization of synthesized molecules.
- Chromatographic analytical techniques [Thin Layer Chromatography (TLC), column chromatography]
- Operating UV-visible spectrophotometer, and SHIMADZU RF-6000 fluorescence spectrophotometer.
- Writing skills, hard work, and basic computer skills.
- Ability to create and maintain the spirit of teamwork and empathy.

PERSONAL INFORMATION

Father's Name	: Late Topeswar Borah
Date of Birth	: 19/08/1995
Marital Status	: Un-married
Gender	: Male
Nationality	: Indian
Religion	: Hindu
Languages Known	: Hindi, English, Assamese

LIST OF PUBLICATIONS

1. **Biplob Borah**, Murugesan Sivaprakash, Samrita Sharma, Madavi S. Prasad, and L. Raju Chowhan, ***Chemistry-An Asian Journal***, **2023**, e202300370. https://doi.org/10.1002/asia.202300370.
2. **Biplob Borah**, Mihir Patat, Vipin Singh, Murugesan Sivaprakash, Madavi S. Prasad and L. Raju Chowhan, ***Organic & Biomolecular Chemistry***, **2023**, 21, 1518-1530. https://doi.org/10.1039/D3OB00043E.
3. **Biplob Borah**, Naveena S. Veeranagaiah, Samrita Sharma, Mihir Patat, Madavi S. Prasad, Raghavaiah Pallepogu and L. Raju Chowhan, ***RSC Advances***, **2023**, 13, 7063-7075. http://dx.doi.org/10.1039/d3ra00017f.
4. **Biplob Borah**, Samrita Sharma, L. Raju Chowhan, ***Asian Journal of Organic Chemistry***, **2023**, 12, e202300020. http://dx.doi.org/10.1002/ajoc.202300020.
5. **Biplob Borah**, Sidhartha Swain, Mihir Patat, Bhupender Kumar, Ketan Kumar Prajapat, Rathindranath Biswas, L. Raju Chowhan, ***Scientific Report***, **2022**, 13, 1386. https://doi.org/10.1038/s41598-023-27948-y.
6. **Biplob Borah**, Jahnu Bora, Pambala Ramesh, L. Raju Chowhan. ***RSC Advances***, **2022**, 12, 12843-12857. https://doi.org/10.1039/D2RA01917E
7. **Biplob Borah**, L. Raju Chowhan, ***Tetrahedron Letters***, **2022**, 104, 154014. https://doi.org/10.1016/j.tetlet.2022.154014
8. **Biplob Borah**, Sidhartha Swain, Mihir Patat, L. Raju Chowhan. ***Frontiers in Chemistry***, **2022**, 10, 991026-991026. https://doi.org/10.3389/fchem.2022.991026
9. **Biplob Borah**, Kartikey Dhar Dwivedi, Bhupender Kumar, L. Raju Chowhan. ***Arabian Journal of Chemistry***, **2022**, 15, 103654. https://doi.org/10.1016/j.arabjc.2021.103654
10. **Biplob Borah**, L. Raju Chowhan. ***RSC Advances***, **2022**, 12, 14022-14051. https://doi.org/10.1039/D2RA02063G
11. **Biplob Borah**, Kartikey Dhar Dwivedi and L. Raju Chowhan. ***Polycyclic Aromatic Compounds***, **2022**, 42, 5893-5937. https://doi.org/10.1080/10406638.2021.1962923
12. **Biplob Borah**, Mihir Patat, Sidhartha Swain, L. Raju Chowhan. ***ChemistrySelect***, **2022**, 7, e202202484. https://doi.org/10.1002/slct.202202484
13. Madavi S. Prasad, Sankar Bharani, Syed Mastan Sharief, Mudavath Ravi, Murugesan Sivaprakash, **Biplob Borah**, and L. Raju Chowhan, ***RSC Advances***, **2022**, 12, 34941-34945. https://doi.org/10.1039/D2RA07141J.
14. Bhupender Kumar, **Biplob Borah**, J Nagendra Babu, L. Raju Chowhan. ***RSC Advances***, **2022**, 12, 30704-30711. https://doi.org/10.1039/d2ra05994k.
15. **Biplob Borah**, L. Raju Chowhan. Book title: Green Chemistry - New Perspectives, *IntecOpen*, London (ISBN 978-1-80355-778-6), 2022.
16. **Biplob Borah**, Kartikey Dhar Dwivedi, L. Raju Chowhan, ***Asian Journal of Organic Chemistry***, **2021**, 10, 2709-2762. https://doi.org/10.1002/ajoc.202100427
17. **Biplob Borah**, Kartikey Dhar Dwivedi, L. Raju Chowhan. ***Asian Journal of Organic Chemistry***, **2021**, 10, 3101-3126. https://doi.org/10.1002/ajoc.202100550
18. **Biplob Borah**, L. Raju Chowhan. ***RSC Advances***, **2021**,11, 37325-37353. https://doi.org/10.1039/D1RA06942J
19. **Biplob Borah**, Kartikey Dhar Dwivedi, Raju Chowhan. ***Arkivoc***, **2021**, i, 273-328. https://doi.org/10.24820/ark.5550190.p011.481

20. **Biplob Borah**, Kartikey Dhar Dwivedi, L. Raju Chowhan. ***RSC Advances***, **2021**, 11, 13585-1360. https://doi.org/10.1039/D1RA01690C
21. Kartikey Dhar Dwivedi, Bhupender Kumar, Marri Sameer Reddy, **Biplob Borah**, J. Nagendra Babu, and L. Raju Chowhan. ***Results in Chemistry***, **2021**, 3, 100201. https://doi.org/10.1016/j.rechem.2021.100201
22. Kartikey Dhar Dwivedi, **Biplob Borah**, L. Raju Chowhan. ***Frontiers in Chemistry***, **2020**, 7, 944. https://doi.org/10.3389/fchem.2019.00944
23. **Biplob Borah**, and L. Raju Chowhan, Photoredox-catalyzed cross-coupling of *in situ* generated quinoxalinones with indoles for the synthesis of tertiary alcohols, **2024, under revision**.
24. Naveena S. Veeranagaiah, **Biplob Borah**, Raghavaiah Pallepoguba, and L. Raju Chowhan, Design, synthesis, crystal structure analysis, Hirshfeld surface scrutiny, and quantum mechanical calculations of fused 4*H*-pyrans and spirooxindole-embedded fused pyran scaffolds, **2024, under review**.
25. **Biplob Borah,*** Mihir Patat, Samrita Sharma, Snehalkumar K Chavada, Sidharth Swain, and L. Raju Chowhan, Organocatalytic Enantioselective Assembly of Dispiro-bisoxindoles with Vicinal Stereocenters, **2024**, **submitted**.
26. **Biplob Borah,*** Samrita Sharma, Snehalkumar K Chavada, Sidharth Swain, and L. Raju Chowhan, Photoacid-Catalyzed Domino Multicomponent Reaction Driven C-H/S-H Functionalization of Bioactive Molecules to Access Xanthene Scaffolds, **2024**, **submitted**.
27. **Biplob Borah**, Snehal K Chavda, L. Raju Chowhan, Ligand, oxidant, and metal-free domino multicomponent synthesis of pyrazole and chromone fused-pyridine complex molecules, 2024, under preparation.

BOOK CHAPTERS

1. Borah, B., & Chowhan, L. R. (2022). *In Green Chemistry-New Perspectives*. Mechanochemistry in Organocatalysis: A Green and Sustainable Route toward the Synthesis of Bioactive Heterocycles. *IntecOpen*, London (ISBN 978-1-80355-778-6), 2022. https://doi.org/10.5772/intechopen.102772
2. **Borah, B**., Sharma, S., & Chowhan, L. R. (2024). *In Spirooxindole*. Recent strategies in the synthesis of spirooxindole scaffolds (stereoselective synthesis), pp. 239-264. *Elsevier* (ISBN:978-0-443-22324-2). https://doi.org/10.1016/B978-0-443-22324-2.00009-6

CONFERENCES/WORKSHOPS

1. "**2nd International Conference on Future Aspects of Sustainable Technologies (FAST 2.0)**", Department of Chemistry, Central Institute of Technology Kokrajhar, Assam, India, from 20-21st October 2020.
2. "**International Conference on Emerging Smart Materials in Applied Chemistry (ESMAC-2020)**", Department of Chemistry School of Applied Sciences, KIIT Deemed to be University, Bhubaneswar-751024, Odisha, India. from 10th -12th August 2020.
3. Online Faculty Development Program on "**Modern Characterization Techniques for Scientific and Engineering Applications (MCTSEA-2020)**" organized by the Department of Physical Sciences, Kakatiya Institute of Technology and Sciences, Warangal, India from 4th – 8th August 2020.

4. 7-day workshop on "**Single Crystal X-ray Crystallography**" supported by the STUTI-DST program, IIT Gandhinagar, Gujarat, India, 2022.
5. 7-day workshop on "**Analytical Scanning Electron Microscopy**" (25th April to 01st May 2022), IIT Gandhinagar, Gujarat, India, 2022.
6. "**6th International Conference on Frontiers at the Chemistry: Allied Sciences Interface (FCASI-2023)**" jointly organized by Department of Chemistry, University of Rajasthan, Jaipur (India), Indian Society for Chemists & Biologists - Rajasthan Chapter and Chemical Research Society of India - Rajasthan Chapter.

ACHIEVEMENTS

- Awarded by WILEY for top cited paper 2021-22.
- Awarded by the *Royal Society of Chemistry* for the best article in the themed "Sustainable Chemistry" collection.
- Awarded by *Frontiers in Chemistry* for best article in "Green and Sustainable Chemistry".
- Reviewer award by "*Journal of Composites and Compounds*", University of Georgia Publication House.
- Qualified CUCET-2019.
- Anundoram Barooah Award, 2011 from Government of Assam.

REFERENCES

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I hereby declare that the information furnished above is true to the best of my knowledge and belief.

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