



Dr. Binoyargha Dam (Ph.D)

Current Designation

Assistant Professor, Department of Chemistry, The Assam Royal Global University.

Nationality

Indian

Experience

Post-doctoral research experience

CSIR RA in Department of Chemistry, IIT-Guwahati under the mentorship of Prof. Bhisma Kumar Patel.

From 13.11.2020 – 17.4.2023

Ph.D (Organic Chemistry)

Department of Chemistry, North-Eastern Hill University, Shillong
From October 2012 – Till June 2018

M.Sc

Completed M.Sc. degree (3rd Rank) in the year 2012 from Department of Chemistry, North-Eastern Hill University (A central University).

From 2010 – Till 2012

B.Sc (Hons.)

Completed B.Sc. degree in Chemistry (6th Rank) in the year 2010 from St. Edmund's College, Shillong, Meghalaya, affiliated to North-Eastern Hill University.

From 2007 – Till 2010

Teaching experience

1. 1 Year 3 months of teaching experience in Department of Chemistry, Royal School of Applied and Pure Sciences, The Assam Royal global university, Guwahati.
2. 2 years of teaching experience as guest lecturer in Department of Nanotechnology, North-Eastern Hill University, Shillong,
From August 2018 – Till 12.11.2020
3. 3 years of teaching experience as guest faculty in Department of Chemistry, St. Edmund's College, Shillong,
From July 2017 – Till 12.11.2020



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(Date of Birth)
15.12.1989



Carrier Objective

- To utilize my dedication to foster quality education required for student's development.
- Develop and promote creativity and high-order thinking skills which will enhance the performance of the students.
- To build a long-term profession both as a teacher and a researcher that will offer endless opportunities for career growth and to keep up with cutting-edge research and educational technologies.
- To carry out multi-disciplinary research involving heterogeneous catalysts especially in the field of photocatalytic and electrochemical organic transformation reactions.

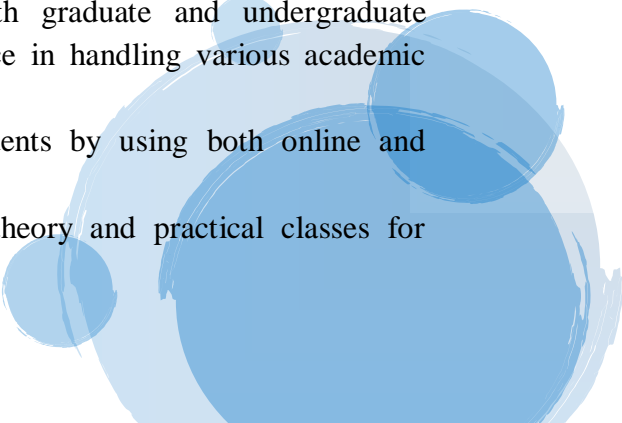
Research experience

- **2.5 years** of post-doctoral experience in synthetic organic chemistry.
- **6 years** of experience in synthetic organic laboratory during PhD.
- **Total citations: 319; h-index: 10; i10-index: 10 (Till 3.7.2024)**

Current Research and research interest

- Photocatalytic organic transformations.
- Electrocatalytic organic transformations.
- Organic Synthesis.
- Heterocycle synthesis.
- Green chemistry.

Key skills and competencies

- Skilled in teaching both graduate and undergraduate students. Have experience in handling various academic and administrative works.
 - Skilled in teaching students by using both online and offline methods.
 - Skilled in taking both theory and practical classes for
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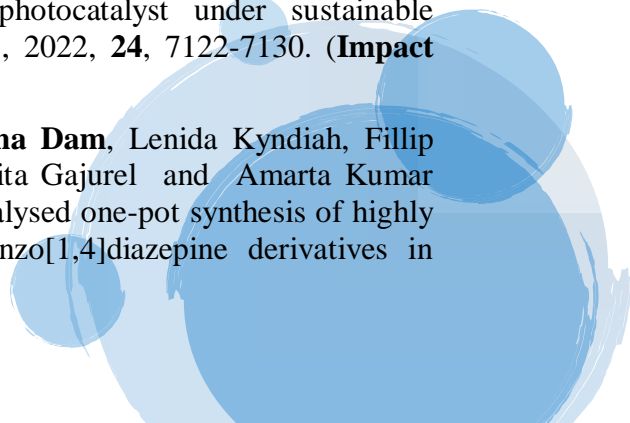



undergraduate and post graduate courses.

- Skilled in handling various laboratory equipments, synthesizing various nanoparticles, nanosheets, Metal organic frameworks (MOF) and other heterogeneous catalysts.
- Experienced in setting up dry reaction, purifying organic compounds through column chromatography, flash chromatography.
- Skilled in organic synthesis, multi-step organic synthesis from mg to g scale, coupling reactions.
- Skilled in setting organic transformation reactions like Suzuki, Sonagashira, Heck etc.
- Knows how to characterize compounds by NMR, FT-IR, Mass spectroscopy, and single crystal X-Ray diffractometer technique.
- Have experience in handling chemistry related software like Chemdraw, Mestrenova, ACD software solution, Origin, mercury, ORTEP, FT-IR essentials, Image J, Microsoft office, excel etc.

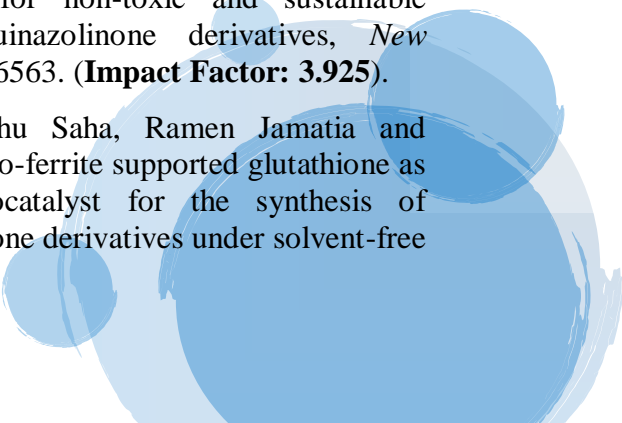
List of Publications


- Ashish K. Sahoo, Dinabandhu Barik, **Binoyargha Dam** and Bhisma K. Patel*. Metal-free Visible-light mediated C-S Bond Formation *Asian J. Org. Chem* 2023, **12** e202300252. (**Impact Factor: 2.7**)
- **Binoyargha Dam**, Bubul Das and Bhisma K. Patel* Graphitic carbon nitride materials in dual metallo-photocatalysis: A promising concept in organic synthesis *Green Chem.*, 2023, **25**, 3374-3397. (**Impact Factor: 9.8**)
- **Binoyargha Dam**, Ashish K. Sahoo and Bhisma K. Patel* Visible-light-mediated synthesis of β -keto sulfones using g-C₃N₄ as recyclable photocatalyst under sustainable conditions *Green Chem.*, 2022, **24**, 7122-7130. (**Impact Factor: 9.8**)
- Rajib Sarkar, **Binoyargha Dam**, Lenida Kyndiah, Phillip Kumar Sarkar, Sushmita Gajurel and Amarta Kumar Pal* Graphite Oxide catalysed one-pot synthesis of highly functionalized spirodibenzo[1,4]diazepine derivatives in



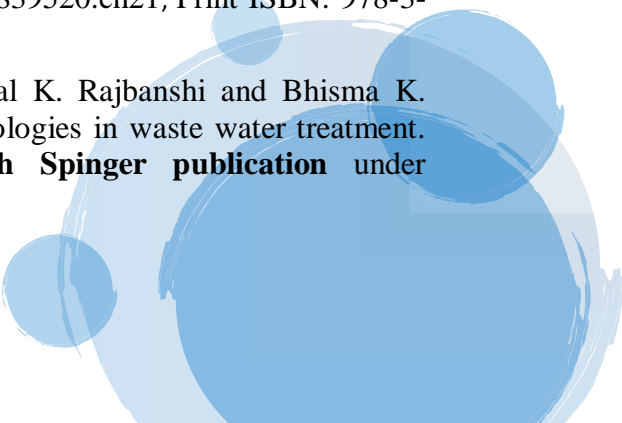



aqueous ethanol medium, *Green Chem.*, 2022, **24**, 5579-5591. (**Impact Factor: 9.8**)

- Gongutri Borah, **Binoyargha Dam** and Bhisma K. Patel* Ortho-functionalization of Benzimidates and Benzamidines, *Chemistry Select*, 2022, **7**, e202104583. (**Impact Factor: 2.307**).
 - **Binoyargha Dam**, Ramen Jamatia, Ajay Gupta and Amarta Kumar Pal* Metal-free greener syntheses of pyrimidine derivatives using highly efficient and reusable graphite oxide carbocatalyst under solvent-free reaction condition, *ACS Sustainable Chem. Eng.*, 2017, **5**, 11459-11469. (**Impact Factor: 8.4**).
 - Ramen Jamatia, Ajay Gupta, **Binoyargha Dam**, Mithu Saha and Amarta Kumar Pal*, Graphite oxide: a metal free highly efficient carbocatalyst for the synthesis of 1,5-benzodiazepines under room temperature and solvent free heating conditions, *Green Chem.*, 2017, **19**, 1576-1585. (**Impact Factor: 9.8**).
 - Sushmita Gajurel, **Binoyargha Dam**, Mayank Bhushan, L. Robindro Singh and Amarta Kumar Pal*, CuO–NiO bimetallic nanoparticles supported on graphitic carbon nitride with enhanced catalytic performance for the synthesis of 1,2,3-triazoles, bis-1,2,3-triazoles, and tetrazoles in parts per million level, *Appl Organomet Chem.*, 2022, **36**, e6524. (**Impact Factor: 3.9**).
 - Ajay Gupta, Ramen Jamatia, **Binoyargha Dam** and Amarta Kumar Pal*, Development of synergistic dual Pd-Cu@rGO catalyst for Suzuki, Heck and Click reactions: facile synthesis of triazole or tetrazole containing biaryl and stilbenes, *Chemistry Select*, 2018, **3**, 8212-8220. (**Impact Factor: 2.307**).
 - **Binoyargha Dam**, Ranjit A. Patil, Yuan-Ron Ma and Amarta Kumar Pal*, Preparation, characterization and catalytic application of nano-Fe₃O₄-DOPA-SnO₂ having high TON and TOF for non-toxic and sustainable synthesis of dihydroquinazolinone derivatives, *New J.Chem.*, 2017, **41**, 6553-6563. (**Impact Factor: 3.925**).
 - **Binoyargha Dam**, Mithu Saha, Ramen Jamatia and Amarta Kumar Pal*, Nano-ferrite supported glutathione as a reusable nano-organocatalyst for the synthesis of phthalazine-trione and dione derivatives under solvent-free
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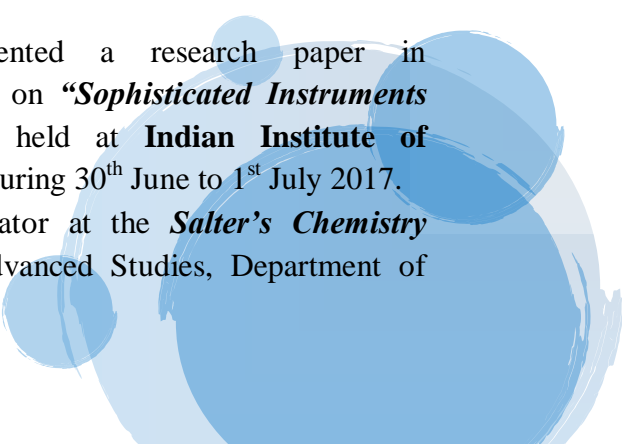


conditions, *RSC Adv.*, 2016, **6**, 54768-54776. (**Impact Factor: 3.9**).

- **Binoyargha Dam**, Amarta Kumar Pal* and Ajay Gupta, Nano-Fe₃O₄@silica sulfuric acid as a reusable and magnetically separable potent solid acid catalyst in Biginelli-type reaction for the one-pot multicomponent synthesis of fused dihydropyrimidine derivatives: A greener NOSE and SFRC approach, *Synth. Commun.*, 2016, **46**, 275-286. (**Impact Factor: 1.937**).
 - **Binoyargha Dam**, Mithu Saha and Amarta Kumar Pal*, Magnetically Recyclable Nano-FDP: A Novel, Efficient Nano-Organocatalyst for the One-Pot Multi-Component Synthesis of Pyran Derivatives in Water Under Ultrasound Irradiation, *Catal Lett.*, 2015, **145**, 1808-1816. (**Impact Factor: 2.936**).
 - **Binoyargha Dam**, Sibaji Nandi and Amarta Kumar Pal*, An efficient 'on-water' synthesis of 1,4-dihydropyridines using Fe₃O₄@SiO₂ nanoparticles as a reusable catalyst, *Tetrahedron Lett.*, 2014, **55**, 5236-5240. (**Impact Factor: 2.032**).
 - Kamal K. Rajbangshi, **Binoyargha Dam** and Bhisma K. Patel*, A book chapter entitled Pyridines, Dihydropyridines and Piperidines: An outline on Synthesis and Biological Activities for the book *N-Heterocycles: Synthesis and Biological Evaluation* published by Springer. eBook ISBN 978-981-19-0832-3; Print ISBN: 978-981-19-0831-6.
 - **Binoyargha Dam**, Nikita Chakraborty and Bhisma K. Patel*, Application of Nanotechnology for Resource Recovery from Wastewater, Published by CRC publications, DOI: 10.1201/9781003176350; ISBN 978-1-032-00913-1.
 - Suresh Rajamanickam and **Binoyargha Dam*** Applications of Ionic Liquids in Heterocyclic Chemistry, doi.org/10.1002/9783527839520.ch21; Print ISBN: 978-3-527-35066-7.
 - **Binoyargha Dam**, Kamal K. Rajbangshi and Bhisma K. Patel* Membrane Technologies in waste water treatment. (A book chapter with Springer publication under communication)
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- **Binoyargha Dam** and Bhisma K. Patel* Synthesis and biological evaluation of thiophene and its derivatives (A book chapter with degueter publications, under communication).

Workshops, Seminars and Symposium Attended

- Participated and presented a research paper in International Conference on ***“Frontiers in Chemical Sciences - 2022 (FICS-2022)”*** held at **Indian Institute of Technology-Guwahati** during 2nd to 4th December 2022.
 - Participated in workshop on ***“Powder X-Ray Diffraction Techniques and its Applications”*** held at **Indian Institute of Technology-Guwahati** on 20-21st January 2021.
 - **Delivered a lecture** in the International Webinar on ***“Understanding Basic Concepts in Chemistry”*** organized by Department of Chemistry in collaboration with IQAC, St. Edmund’s College, on 28th -29th of August, 2020.
 - Participated and gave an **oral presentation** in the ***“4th International Caparica Symposium on Nanoparticles/Nanomaterials and Applications 2020”*** held in **Capuchos, Caparica-Portugal**, from 20-23rd January, 2020.
 - Participated and gave an **oral presentation** in National Symposium on ***“Contemporary Challenges in Chemistry 2019”*** held in Centre for Advanced Studies, Department of Chemistry, North-Eastern Hill University, Shillong from 31st October- 1st November, 2019.
 - Participated and gave an **oral presentation** in National Seminar on ***“Recent Trends in Chemistry (RTC-2018)”*** held in Centre for Advanced Studies, Department of Chemistry, North-Eastern Hill University, Shillong from 20-21st November, 2018.
 - Participated and presented a research paper in International Conference on ***“Sophisticated Instruments in Modern Research”*** held at **Indian Institute of Technology-Guwahati** during 30th June to 1st July 2017.
 - Participated as a facilitator at the ***Salter’s Chemistry Camp*** at Centre for Advanced Studies, Department of
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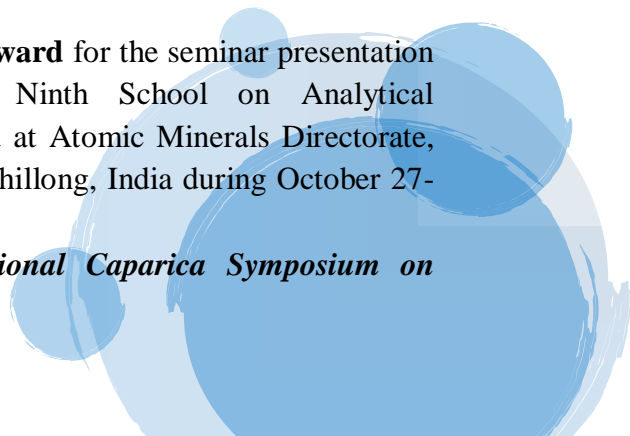


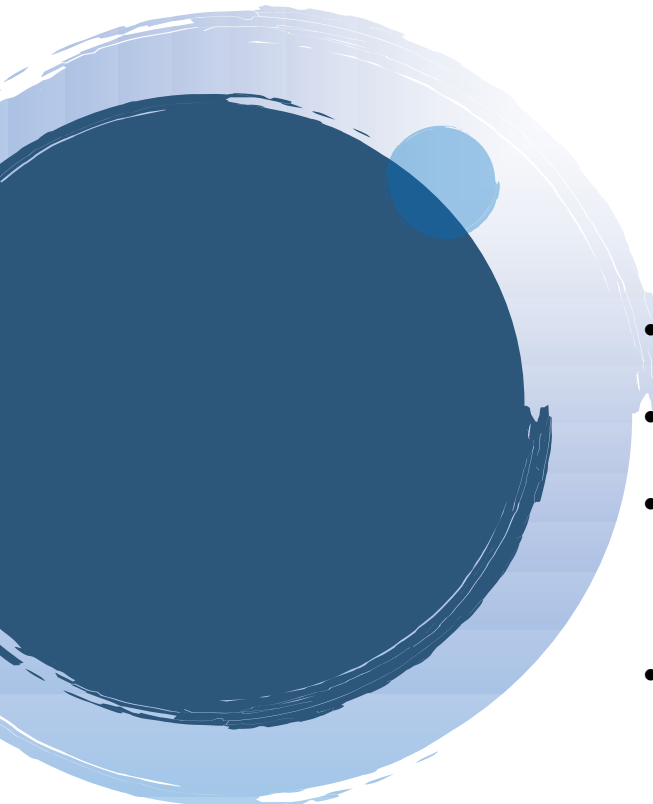
Chemistry, North-Eastern Hill University, Shillong from 30th January to 1st February 2017.

- Participated and presented a poster in International Conference on “*Nature Inspired Initiatives in Chemical Trends (Organic Synthesis)*” held at **CSIR-Indian Institute of Chemical Technology**, Hyderabad, India from 19-20 September, 2016.
- Participated and presented a poster in the Section of chemical sciences during the “*102nd Indian Science Congress*” held at University of Mumbai, Mumbai from January 3-7, 2015.
- Participated and presented a poster in an **International Symposium on “Recent Advances in Chemistry (REACH-2015)”** held at Centre for Advanced Studies in Chemistry, North-Eastern Hill University, Shillong from 03-05 March, 2015.
- Participated and delivered an **oral presentation** in the national seminar on “*Newer Trends in Chemistry and Environment*” held at Department of Chemistry, Don Bosco College-Tura, on 10-11th December 2014.
- Participated in the Board of Research in Nuclear Sciences (BRNS) **Ninth School on Analytical Chemistry (SAC-9)** at AMD-North Eastern Region, Shillong during October 27-November 3, 2014.
- Attended workshop on “*Electron microscopy in Physical Sciences*” held at SAIF, North-Eastern Hill University, Shillong from March 4-6, 2014.
- Attended workshop on “*Application of FT-NMR in Chemical and Biological Sciences*” held at SAIF, North-Eastern Hill University, Shillong from March 19-22, 2013.

Awards and Honours

- Won **Best Performer Award** for the seminar presentation during BRNS-AEACI Ninth School on Analytical Chemistry (SAC-9) held at Atomic Minerals Directorate, North Eastern Region, Shillong, India during October 27-November 03, 2014.
- Invited in *4th International Caparica Symposium on*





Nanoparticles/Nanomaterials and Applications 2020 held in Lisbon, Portugal to give an oral talk.

- Cleared **SLET-NE examination 2018**, for lecturer ship in India.
- Got selected for **D S Kothari Post Doctoral Fellowship** and **CSIR RA fellowship** in India.
- Received **appreciation from Chief Minister of Meghalaya** in the year **2017** and got selected for special musical training in Indian and Western Music under Department of Arts and Culture, Meghalaya.
- Received a letter of appreciation from Royal Global University, Guwahati for services rendered. This was send to me by the University, based on the review of one of my ex-student, whom I taught in St. Edmund's College, Shillong. He later on took admission in the esteemed university.

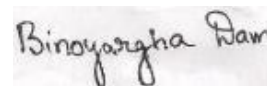
Faculty Development Programmes & Refresher courses attended

- Frontiers of Modern Research on Chemistry- organised by Amity Institute of Applied Sciences from 17th to 21st July, 2023.
- Completed two week Interdisciplinary Refresher Course on Curriculum and Pedagogy organized by Teaching Learning Centre, Tezpur University during 07-20 June 2023 with A+ grade.

Declaration

I vouch to the authenticity of the above mentioned facts.

PLACE: Guwahati, India



(Binoyargha Dam)

Dated: 3rd July, 2024

