



Dr. Kinkar Biswas

Associate Professor in Chemistry
University of North Bengal

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Academic Qualifications

B.Sc. (Hons.) in Chemistry; A.B.N.Seal College (Govt.), University of North Bengal, 2005

M.Sc. in Chemistry (Organic Chemistry Specialization), University of North Bengal, 2007

Ph.D. in Chemistry, University of North Bengal, 2017

Academia Skill highlights

- Organic Synthesis
- Stereochemistry
- Reagent Chemistry
- Name reactions and mechanism
- Carbohydrates
- Spectroscopy
- Green Chemistry
- Heterocyclic Chemistry

Research Skill highlights

- Organic Synthesis
- Nuclear Magnetic Resonance
- Material Chemistry
- Design of Sensors
- Organometallics
- Green Chemistry
- Cross-coupling reactions
- Synthtic Methodology

Fellowships:

1. JOINT CSIR-UGC NET (National Eligibility Test)-JUNIOR Research FELLOWSHIP-2007
2. TEACHER FELLOWSHIP under UGC-FDP Scheme: 2014

Award:

1. GATE (Graduate Aptitude Test in Engineering)-2007
2. CSIR-NET (Junior Research Fellowship)-2007
3. Gold Medal in M.Sc. (secured 1st position among M.Sc. students)
4. Surendranath Bhattacharya Medal award, 2009, NBU

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5. Junior Scientist of the year 2017 by NESAs

Conference/Seminar/Organization:

Session chaired:

1. Chaired a technical session in a National seminar on "Chemical Science Horizon 2017" (CSH- 2017), Department of Chemistry, Raiganj University
2. Chaired a technical session in a National seminar on Recent Developments in Chemistry, IQAC, Kaliyaganj College and Dept. of Chemistry GBU, 2016
3. Chaired a technical session in a National seminar on UGC Sponsored Seminar on Green Chemistry For Environmentally Benign Chemical Synthesis, Dept. of Chemistry, Raiganj Surendranath Mahavidyalaya and Dept. of Chemistry GBU

Conference or seminar organized:

1. As an organizing member in International Conference on Local Issues Global Resolutions: Ecology, Environment, Climate and Economy 10-11th January, 2018
2. As a Joint Organizing Secretary in a National Seminar on Chemical Science Horizon-2018
3. As a Joint Coordinator and Treasurer in a National Seminar on "Chemical Science Horizon 2017" (CSH- 2017), Department of Chemistry, Raiganj University, Raiganj, U/Dinajpur.

Teaching Experience:

12 years

Research Experience:

Fourteen (14) years of research experience.

Research Guiding Experience:

M.Sc. project students = 2016-17 (03), 2017-18 (04) , 2018-19 (04), 2019-20 (04), 2020-21 (03), 2021-22 (04)

Ph.D. Scholars: 06 (Six)

Post-Doctoral–Research Associate: Nil

Ongoing Project: One major project (sanctioned authority: WBDSTBT)

Publications:

Book Chapters

1. Biological applications of some Rhodamine B and Rhodamine 6G derivatives: A concise review, Soma Sarkar, Abhik Chatterjee* and Dr. Kinkar Biswas* in Recent Development of Chemical Research being Implemented in Biology and Medicine, Walnutpublication, 2022, 112-126

2. Modified graphene oxide-based nanocomposite as a carrier for drug delivery: A short review, Kinkar Biswas, in “Recent Advancement in Therapeutic Use of Chemical Compounds and Drug Delivery”, Walnutpublication, 2021.
3. Air pollutants: Causes of various respiratory diseases, Kinkar Biswas, Environmental Concern: An Overview, Edn. 1st 2018, The Banaras Marcantile Co., Kolkata, WB, India.
4. DPQ: An uncommon Oxidant used in Organic Reactions, Suman Bose and Kinkar Biswas*, Information Technology, Biological Sciences and Society: *A Handbook*, Edn. 1st 2018, New Delhi Publishers, New Delhi and Kolkata, India.
5. Amidines The Superbases: Used as Reagents for the Synthesis of Heterocycles, Kinkar Biswas, Proceedings of the UGC Sponsored State Level Seminar on Recent Advances in Basis Sciences, Sahajpath Publication, ISBN: 978-81-931261-6-5, 2016, Islampur

Research Papers (selected):

1. CO₂ activation on transition metal decorated graphene quantum dots: An insight from first principles, K Ghosh, NK Mridha, AA Khan, N Baildya, T Dutta, K Biswas, NN Ghosh, *Physica E: Low-dimensional Systems and Nanostructures*, 2022, 135, 114993.
2. Current concepts and prospects of mulberry fruits for nutraceutical and medicinal benefits, D. Bhattacharjya, A. Sadat, P. Dam, D. F Buccini, R. Mondal, T. Biswas, K. Biswas, H. Sarkar, A. Bhuimali, A. Kati, A. K. Mandal, *Current Opinion in Food Science*, 2021, 40, 121-135.
3. Metal-free multicomponent approach for the synthesis of propargylamine: a review, S. Ghosh and K. Biswas, *RSC Adv.*, 2021, 11, 2047-2065.
4. Ion-exchange Resins and Polypeptide Supported Catalysts: A Critical Review, K. Biswas, S. Ghosh and B. Basu, *Current Green Chemistry*, 2020. 7, 39-51.
5. v. Bio-molecule functionalized rapid one-pot green synthesis of silver nanoparticles and their efficacy toward the multidrug resistant (MDR) gut bacteria of silkworms (*Bombyx mori*), S. Some, B. Sarkar, K. Biswas, T. K. Jana, D. Bhattacharjya, P. Dam, R. Mondal, A. Kumar, A. K. Deb, A. Sadat, S. Saha, A. Kati, I. Ocoy, O. L. Franco, A. Mandal, S. Mandal, A. K. Mandal, İ. Agah İnce, *RSC Adv.*, 2020, 10, 22742–22757.
6. Effect of feed supplementation with biosynthesized silver nanoparticles using leaf extract of *Morus indica* L. V1 on *Bombyx mori* L. (Lepidoptera: Bombycidae), Ismail ocoy, Sudip Some, Onur Bulut, Kinkar Biswas, Anoop Kumar, Anupam Roy, Ipsita Kumar Sen, Amitava Mandal, Octavio Franco, Iqbal Agah Ince, Kartik Neog, Sandip Das, Sayantan Pradhan, Subhadeep Dutta, Debjoy Bhattacharjya, Soumen Saha, Pradeep K. Das Mohapatra, Anil Bhuimali, B.G. Unni, Ahmet Kati, Amit Kumar Mandal, and M. Deniz Yilmaz, *Scientific Reports*, (2019) 9:14839.
7. New 1,2-dithioether based 2D copper(I) coordination polymer: from synthesis to catalytic application in A³-coupling reaction, Sankar Saha, Kinkar Biswas*, Pranab Ghosh & Basudeb Basu*, *Journal of Coordination Chemistry*, 2019, 72, 1810–1819.
8. Poly-ionic Resin Supported Pd/Fe₂O₃ Nanohybrids for Catalytic Hydrodehalogenation:

Improved and Versatile Remediation for Toxic Pollutants, Kinkar Biswas, Shreyasi Chattopadhyay, Jing Yunke, Dongyuan Zhao, Renchao Che, Goutam De, Basudeb Basu, *Ind. Eng. Chem. Res.* 2019, 586, 2159-2169.

9. Bunte Salts and Congeners as Efficient Sulfur Surrogates: Recent Advances, Kinkar Biswas* and Basudeb Basu*, *Current Organocatalysis*, 2018, 5, 182-195.
10. 1-D copper(I) coordination polymer based on bidentate 1,3-dithioether ligand: Novel catalyst for azide-alkyne-cycloaddition (AAC) reaction, Sankar Saha, Kinkar Biswas*, Basudeb Basu*, *Tetrahedron Lett.* 2018, 59, 2541–2545.
11. Effect of the *ortho*-hydroxy group of salicylaldehyde in the A3 coupling reaction: A metal-catalyst-free synthesis of propargylamine, Sujit Ghosh, Kinkar Biswas, Suchandra Bhattacharya, Pranab Ghosh and Basudeb Basu*, *Beilstein J. Org. Chem.* 2017, 13, 552–557.
12. Cyclic ammonium salts of dithiocarbamic acid: Stable alternative reagents for the synthesis of *S*-alkyl carbodithioates from organyl thiocyanates in water, Kinkar Biswas, Sujit Ghosh, Pranab Ghosh & Basudeb Basu, *J. Sulfur Chem*, 2016, 37, 361-376.
13. In Quest of “Stereoselective Switch” for On–Water Hydrothiolation of Terminal Alkynes Using Different Additives and Green Synthesis of Vicinal Dithioethers, Basudeb Basu, Kinkar Biswas, Samir Kundu, and Debasish Sengupta, *Organic Chemistry International*, 2014, Article ID 358932.
14. Highly effective alternative aryl trihydroxyborate salts for a ligand–free, on–water Suzuki–Miyaura coupling reaction, Basudeb Basu,* Kinkar Biswas, Sekhar Kundu and Sujit Ghosh, *Green Chem.*, 2010, 12, 1734–1738.

Editorial Board Member:

Guest Editor in International Journal of Photochemistry and Photobiology, Science Publishing Group

Patent:

1. BIOGENIC AG NANOPARTICULATE SYSTEM INVOLVING MORUS INDICA L. V1 LEAF EXTRACT AND IT'S METHOD OF MANUFACTURE, A. K. Mandal, S. Some, A. Bhumali, K. Biswas, A. Kumar, K. Neog, I. K. Sen, A. Mandal, S. Das, S. Pradhan, S. Dutta, P. K. D. Mohapatra, K. Tiwari, I. Osoy, O. L. Franco, M. D. Yilmaz, I. K. Ince, A. Kati, 2019, Application No.201931011330 A/India.
