

Dr. ARIJIT KUNDU

Designation: Assistant Professor in Chemistry (W.B.E.S.)

Qualifications:

M.Sc. (University of Budwan), Ph.D. (University of Calcutta)

Title of thesis (Ph.D.) with year: “Synthesis of Important Heterocyclic and Carbocyclic scaffolds from β -chloro- α,β -unsaturated aldehydes and Internal Electrolytic Reduction of Diarylidene Cycloalkanones” (2017)

About Me:

Experience / Expertise:

I have been working as an Assistant Professor in Chemistry in the W.B.E.S. since August, 2010. Prior to that, I have been actively engaged in research and teaching for almost 14 years, and I now like introducing students to the many facets of chemistry in creative ways whenever I can.

Specialisation & Area of Interests:

Specialisation – Organic Chemistry;

Areas of Interest – Synthesis of Bioactive and Heterocyclic molecules; Chemosensing, Green Synthesis, Multi-component One pot reactions, Solid Phase Synthesis etc.

Current Teaching:

Overview – I have been teaching in Organic Chemistry as a full time, permanent teacher in undergraduate level since 2010. I have served for five years at Darjeeling Government College and after my transfer, I am continuing in Maulana Azad College since 2015.

Research Interests:

Under the Supervision of Professor Kaliprasanna Dhara, I have completed my pre-doctoral research from University of Calcutta, Kolkata. I used to conduct my research on the synthesis of substituted heterocycles from β -chloro- α,β -unsaturated aldehydes or other carbonyl moieties having potential bioactivity, chemosensig or any other useful properties using solid phase catalyst, aqueous media, benign catalyst, and/or any other green techniques

Publications:

1. “Synthetic Strategies of Highly Bioactive Scaffold Bis(indolyl)methane Under Greener Condition- A Comprehensive Review”; **Arijit Kundu**, Chhanda Mukhopadhyay; *Current Topics in Medicinal Chemistry*, **2024**, DOI: [10.2174/0115680266319238240821080203](https://doi.org/10.2174/0115680266319238240821080203)
2. “A critical insight into the physicochemical stability of macular carotenoids with respect to their industrial production, safety profile, targeted tissue delivery, and

- bioavailability.” Samudra P Banik, Pawan Kumar, Pijush Basak, Apurva Goel, Sunny E Ohia, Manashi Bagchi, Sanjoy Chakraborty, **Arijit Kundu**, Debasis Bagchi; *Toxicology Mechanisms and Methods*, **2024**, 1–15. <https://doi.org/10.1080/15376516.2024.2401924>.
3. “Synthesis and characterization of a unique fused spiro-dihydropyran based chemodosimeter for selective visual and fluorescent detection of Cu²⁺ ion in aqueous medium by “turn-on” mode”; **Arijit Kundu**, Bhaswati Bhattacharyya; *Dyes and Pigments*; **2024**, 227, 112189.
 4. “A facile potassium 18-crown ether catalysed synthesis of 2,6-dicyanoaniline and 3-amino-9,10-dihydrophenanthrene-2,4 dicarbonitrile and their in vitro intercalation study on calf thymus DNA”; **Arijit Kundu**; *Synthetic Communications*, **2021**, 51(22), 3473–3482.
 5. “An unorthodox metal-free synthesis of dihydro-6*H*-quinoline-5-ones in ethanol/water using a non-nucleophilic base and their cytotoxic studies on human cancer cell line”; **Arijit Kundu**, Bhaswati Bhattacharyya, Kaliprasanna Dhara, Subhabrata Paul, Indira Majumder, Rita Kundu, *New Journal of Chemistry*, **2020**, 44, 4898-4906.
 6. “Anthraimidazole-dione Based Reversible and Reusable Selective Chemosensors for Fluoride Ion: Naked-Eye, Colorimetric and Fluorescence “ON-OFF””; Bhaswati Bhattacharyya, **Arijit Kundu**, Nikhil Guchhait, Kaliprasanna Dhara, *Journal of Fluorescence*, **2017**, 27, 1041–1049.
 7. “One-pot protocol for J-aggregated anthraimidazole-diones catalyzed by phosphotungstic acid in PEG-400 under aerobic condition”; Bhaswati Bhattacharyya, **Arijit Kundu**, Aniruddha Das, Kaliprasanna Dhara, Nikhil Guchhait; *RSC Advances*, **2016**, 6, 21907-21916.
 8. “An efficient solvent-free synthesis of bis(indolyl)methane-based naked eye chemosensor for Cu²⁺ ion from β-chloro-α,β-unsaturated aldehydes using PMA-Cellulose as a solid phase reusable catalyst”; **Arijit Kundu**, Aniruddha Ganguly, Kaliprasanna Dhara, Prasanta Patra, Nikhil Guchhait, *RSC Advances*, **2015**, 5, 53220-53229.
 9. “Synthesis of Both Kinetically and Thermodynamically Controlled Diastereomeric Pairs of Bis-Isoxazolidines from Dibenzylideneacetone: Their Reactivity and Biological Activity” Bhaswati Bhattacharyya, **Arijit Kundu**, Kaliprasanna Dhara, Nikhil Guchhait, Bijan K. Pal, Sudipta Hazra, Sukalyani Debnath, Banasri Hazra, Amarendra Patra; *ChemInform Abstract*, 2014, 45 (9) March 4, doi.org/10.1002/chin.201409148.
 10. “Zinc Mediated Ring Size Tuned C=C Reduction and C—C Coupling of α,α'-(E,E)-Bis(benzylidene)cycloalkanones”; **Arijit Kundu**, Bhaswati Bhattacharyya, Kaliprasanna Dhara, Amarendra Patra; *ChemInform Abstract*, **2013**, 44(51); <https://doi.org/10.1002/chin.201351101>.
 11. “Zinc mediated ring size tuned C=C reduction and C-C coupling of α,α'-(E,E)-bis(benzylidene)cycloalkanones”; **Arijit Kundu**, Bhaswati Bhattacharyya, Kaliprasanna Dhara, Amarendra Patra; *Journal of the Indian Chemical Society*, 2012, 89(12):1711-1722.

