

Dr. AJANTA MUKHERJI



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

Qualifications:

- M.Sc. (CU), Ph.D. (Bose Institute; JU)
- Title of thesis (Ph.D.) with year: "Synthetic Approaches to Heterocycles and Studies on Their Reactions" (2010)

About Me:

○ Experience / Expertise:

I have been working as an Assistant Professor in Chemistry in the W.B.E.S. since July, 2010. Prior to that, I have worked as a full time research scholar (CSIR-NET JRF and SRF) for 6 years (2004-2010) and completed my Ph.D. thesis. Hence, I have been actively involved in the fields of both teaching and research for nearly 15 years and now, enjoy teaching students the various aspects of Chemistry, in innovative ways, wherever possible.

○ Specialisation & Area of Interests:

Specialisation – Organic Chemistry;

Areas of Interest – Synthesis of bioactive, heterocyclic molecules; Green Chemistry;
Environmental chemistry

Current Teaching:

- Overview – I have been teaching Organic Chemistry as a full time, permanent teacher in undergraduate level for nearly nine years. I have served for more than eight years at Krishnagar Government College (July, 2010 to February, 2019) and after my transfer, I am continuing in Maulana Azad College since February, 2019.

Research Interests:

- Overview – I have pursued my pre-doctoral research from Bose Institute, Kolkata under the guidance of Prof. Manas Chakrabarty. My research work comprised of synthesis of substituted and condensed (mainly nitrogen containing) heterocycles having known/ potential bioactivity, carrying out reactions in eco-friendly media and application of one or more principles of Green Chemistry in efficient synthesis of heterocyclic compounds.
- Main Research Projects – NA

Selected Publications:

○ Papers

1. "An Expedient Synthesis of Novel 2-Substituted Thiazolo[4,5-f]isoquinolines/quinolines and Benzo[1,2-d:4,3-d']bisthiazoles and Their Potential as Inhibitors of COX-1 and COX-2", M. Chakrabarty, A. Mukherji, S. Karmakar, R. Mukherjee, K. Nagai, A. Geronikaki and P. Eleni, *Arkivoc*, **2010**, (xi), 265-290 [ISSN 1551-7004; IF: 1.165].
2. "Heteropoly Acids as Novel Catalysts in Organic Synthesis", A. Mukherji, *Conscientia*, **2011**, 1(2), 9-17 [ISSN 2278-6554].
3. "An Expedient Phase Transfer Catalyst-mediated Synthesis of 2-Alkyl/Aryl-1,8-Phenanthrolines", M. Chakrabarty and A. Mukherji, *Journal of Heterocyclic Chemistry*, **2012**, 49(6), 1443-1446 [ISSN 0022-152X; IF: 0.893].
4. "Eco-friendly Synthesis of Condensed Nitrogen Heterocycles - A Brief Experience from Our Group", M. Chakrabarty and A. Mukherji, *J. Indian Chem. Soc.*, **2013**, 90(10), 1681-1694 [ISSN 0019-4522; IF: 0.382].
5. "Analysis of Drinking-water in Nadia District for Chemical Contaminants: Some Preliminary Findings", A. Mukherji, *International Journal of Ecosystem*, May, **2015**, 5(3A), 18-28 [ISSN: 2165-8889].

○ **Posters**

1. Presented a **Poster** entitled “*Analysis of Drinking Water in Nadia District for Chemical Contaminants: Some Preliminary Findings*” in two-day **International Seminar** on ‘*Groundwater: Issues & Challenges of the 21st Century*’, organized by Sripat Singh College, Jiaganj, Murshidabad in collaboration with Department of Chemistry (Analytical), University of Kalyani on **29-30th December, 2014**.
2. Presented a **Poster** entitled “*Reaction of Ninhydrin with Malonic and Meldrum’s Acid: Decarboxylation and Tandem Cleavage-Decarboxylation-Esterification observed on Mont. K10 Clay*” in **National Symposium** on ‘*Recent Advances in Chemistry & Industry (2015)*’, organized by the Indian Chemical Society on **31st July & 1st August, 2015**.
3. Presented a **Poster** entitled “*Reaction of Ninhydrin with Cyclic and Acyclic 1,3-Diketo compounds: Unexpected Formation of Heterocycles from Acyclic Substrates*” in UGC sponsored one-day **National Seminar** on ‘*Recent Advances in Chemistry*’, organized by Department of Chemistry, Sripat Singh College, Jiaganj, Murshidabad, in association with Dumkal College, Basantapur, Murshidabad on **21st December, 2015**.
4. Presented a **Poster** entitled “*Detection of Nitrate and Nitrite ions in Drinking Water: A Case Study in Nadia District*” in **23rd West Bengal State Science and Technology Congress**, 2016, organized by Presidency University, Kolkata on **28-29th February, 2016**.
5. Presented a **Poster** entitled “*Reaction of Ninhydrin with Indane-1,3-dione on Mont. K10 Clay: Unexpected Tandem Aldol condensation-Dehydration-Michael addition*” in **National Symposium** on ‘*Recent Advances in Chemistry & Industry 2016 (with special emphasis on Pharmaceutical Industry)*’, organized by the Indian Chemical Society on **2nd & 3rd August, 2016**.
6. Presented a **Poster** entitled “*Application of a Keggin Heteropoly acid as a Highly Efficient Catalyst for an Expedient, One-pot Synthesis of 1,2-Disubstituted Benzimidazoles*” in **National Seminar** on ‘*Recent Development in Chemical Sciences*’ organized by Barrackpore Rastraguru Surendranath College on **14th February, 2017**.
7. Presented a **Poster** entitled “*First Synthesis of 2-substituted Thiazolo-[4,5-f]isoquinolines and Their Potential as Inhibitors of COX-1 and COX-2*” in **National Conference** on ‘*Chemistry: Today and Tomorrow*’ organized by Department of Chemistry, University of Kalyani on **26-27 July, 2018**.
8. Presented a **Poster** entitled “*Assessment of Water Quality Parameters of Some Local Rivers of Nadia District*” in **International Seminar** on ‘*Recent Trends in Science Towards Sustainable Development*’ organized by Acharya Prafulla Chandra College, New Barrackpore in collaboration with Indian Chemical Society, Kolkata on **6-7 August, 2018**.

○ **Conference Talks**

1. Presented a paper (**oral presentation**) entitled “*An Expedient Synthesis of 2-Alkyl/aryl-1,8-phenanthrolines using Phase Transfer Catalyst-mediated Skraup/Doebner-von Miller Reaction*” in **Acharya P.C. Ray National Young Scientists’ Conference**, organized by Presidency University, Calcutta University and Vivekananda Vijnan Mission (West Bengal chapter of Vijnana Bharati) and held at Presidency University on **17-18th February, 2012**.
2. Presented a paper (**oral presentation**) entitled “*Nanogold: From a Golden past to a Glittering Future*” in UGC sponsored two-day **National Seminar on ‘Current Trends in Chemistry’**, organized by Department of Chemistry, Sripat Singh College, Jiaganj, Murshidabad, in association with Dumkal College, Basantapur, Murshidabad on **23-24th December, 2013**.
3. Presented a paper (**oral presentation**) entitled “*Heteropoly Acids: A Unique Class of Highly Efficient, Versatile and Eco-friendly Acid Catalysts*” in **National Symposium on ‘Recent Advances in Chemistry & Industry (2014)’**, organized by the Indian Chemical Society on **1st & 2nd August, 2014**.

Contact Details:

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Professional Memberships and Activities:

1. Life Member of Indian Association for the Cultivation of Science library
2. Life Member of Indian Chemical Society
3. Member of British Council library