



ENLIGHTENMENT TO ERECTION

UNIVERSITY OF NORTH BENGAL

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Raja Rammohunpur, Dist- Darjeeling, West Bengal, Pin-734013, India.

Department of Chemistry

Print



Dr. Mayukh Deb

M.Sc., Ph.D.

Micro-Analyst

**Contact Addresses:****Phone** +91 7827804758 (M)**Address(office)** Department of Chemistry, University of North Bengal, Raja Rammounpur, PO-N.B.U., Dist-Darjeeling, West Bengal, Pin-734013, India.**e-Mail** debmayukh285@gmail.com**Subject Specialization:** Organometallic Chemistry**Areas of Research Interest:** Homogeneous Catalysis, Sustainable Chemistry and Organometallics.**Areas of Research Interest:****No. of Ph.D. students:** (a) Supervised: Nil (b) Ongoing: Nil**No. of M.Phil. students:** (a) Supervised: Nil (b) Ongoing: Nil**No. of Publications:** 11**Achievement & Awards:**

- **ACS Organometallics** "Best Poster Award" in Modern Trends in Inorganic Chemistry (*MTIC-XVII*) organized by IISER Pune and NCL Pune. **December 2017.**
- Recipient of **Senior Research Fellowship (SRF)** by the **UGC**, Government of India (July 2015- till date).
- Recipient of **Junior Research Fellowship (JRF)** by the **UGC**, Government of India (July 2013-July 2015).
- *Qualified National Eligibility Test (NET), UGC-JRF* in Chemical Science conducted by CSIR-UGC, India in December 2012 (**All India Rank 68**)
- *Qualified Graduate Aptitude in Engineering (GATE)* exam organized by the Indian Institute of Technology Bombay (January 2013) (**All india Rank 25**).
- *Qualified Joint Admission Test to MSc (JAM)*, organized by IIT Roorkee 2011(**All India Rank 127**).
- Recipient of **INSPIRE SCHOLARSHIP (2008-2013)** by the **Department of Science and Technology**, Government of India, for the tenure of (BSc + MSc).
- Recipient of **Prof. Mihir Chowdhury Memorial award and medal** for being the topper in College 3rd yr of BSc (H) by ABN Seal College, Cooch Behar.
- Recipient of **Prof. Mihir Chowdhury Memorial award and medal** for being the topper in College 2nd yr of BSc (H) by ABN Seal College, Cooch Behar.
- Recipient of **Prof. Mihir Chowdhury Memorial award and medal** for being the topper in College 1st yr of BSc (H) by ABN Seal College, Cooch Behar.
- Topper in the School and 2nd in the district Cooch Behar, for **HS Examination(10+2)** 2008.

Professional Experience:

1. Experienced in synthesis, purification, characterization, and handling of sensitive compounds using Schlenk/glove box techniques.
2. Comfortable in handling the following instruments: NMR (1H, 11B, 13C, 19F, 77Se, 119Sn), IR, UV-vis, and Mass spectrometers and single crystal X-ray diffractometer.
3. Working experience of five years on a Bruker made X-ray single crystal diffractometer and also for data refinement and structural solutions of more than 200 structures.

4. Familiar with various Windows based crystallography software like WINGX, OLEX2 and PLATON, SAINTPLUS, SHELXTL, APEX3.

Administrative Experience:

1. Research Scholars' Representative in Co-curricular and Academic Interaction Council, Indian Institute of Technology Delhi, New Delhi, India. (2014-2015).
2. Micro-Analyst, Department of Chemistry, NBU (2019-Till date).

List of Publications:

1. Deb, M.; Hazra, S.; Dolui, P.; Elias, A. J. *ACS Sustain. Chem. Eng.* 2019, 7, 479-486. (DOI: 10.1021/acssuschemeng.8b03966) [Ferrocenium promoted oxidation of benzyl amines to imines using water as the solvent and air as the oxidant.]
2. Deb, M.; Hazra, S.; Gupta, A.; Elias, A. J. *Dalton Trans.* 2018, 47, 7229; [Synthesis of unsymmetrical multi-aryl derivatives of ferrocene using palladium catalysed oxidative C-H arylation].
3. Hazra, S.; Pilania, P.; Deb, M.; Kushawaha, A. K.; Elias, A. J. *Chem. Eur. J.* 2018, 24, 15766-15771. [Aerobic oxidation of primary amines to imines in water using a cobalt complex as recyclable catalyst under mild conditions.]
4. Deb, M.; Singh, J.; Mallik, S.; Hazra, S.; Elias, A. J. *New J. Chem.* 2017, 41, 14528; [Borylation, silylation and selenation of C-H bonds in metal sandwich compounds by applying a directing group strategy].
5. Hazra, S.; Deb, M.; Elias, A. J. *Green Chem.* 2017, 19, 5548. [Iodine catalyzed oxidation of alcohols and aldehydes to carboxylic acids in water: a metal-free route to the synthesis of furandicarboxylic acid and terephthalic acid].
6. Hazra, S.; Deb, M.; Singh, J.; Elias, A. J. *Organometallics* 2017, 36, 1784; [Picolinamide as a Directing Group on Metal Sandwich Compounds: sp² C-H Bond Activation and sp³ C-H Bond Oxidation].
7. Deb, M.; Kumar, D.; Singh, J.; Elias, A. J. *Organometallics* 2016, 35, 1086; [Unprecedented formation of pi-copper complexes during Sonogashira coupling: Synthesis of a Unique, Recyclable, Ethynyl ferrocene derived Cu(I) specific ligand].
8. Singh, J.; Deb, M.; Elias, A. J. *Organometallics* 2015, 34, 4946; [Palladacycles based on 8-aminoquinolinecarboxamides of Cobalt and Iron sandwich compounds and a new method to alpha-alkylate Cp of metal sandwich carboxamides].
9. Kumar, D.; Deb, M.; Singh, J.; Singh, N.; Keshav, K.; Elias, A. J. *Coord. Chem. Rev.* 2016, 306, 115. [Chemistry of the highly stable hindered cobalt sandwich compound and its derivatives].
10. Singh, J.; Ghosh, S.; Deb, M.; Elias, A. J. *J. Organomet. Chem.* 2016, 818, 85; [Reactions of Cp₂TiMe₂ on ferrocene and cobalt sandwich derived ester and amides: A new route to 1-methylvinyl and methyl ketone derived metal sandwich compounds].
11. Singh, M.; Srinivas, C.; Deb, M.; Kurur, N. D. *Chem. Phys. Chem.* 2013, 14, 3977. [Paramagnetic relaxation of Long-lived coherences in solution NMR].

Conferences Attended:

1. New Directions in Chemical Sciences (NDCS) held at IIT Delhi, New Delhi, India, December 7-9, 2013. (Poster Presentation).
2. Mastering in Molecules and Materials (M3-2014), NIT Kurukshetra, Haryana, India, October 16-18, 2014 (Poster Presentation).
3. "ACS on Campus" event, Organized by American Chemical Society (ACS Publications), Department of Chemistry, IIT Delhi, New Delhi, India, September 30-October 1, 2015.
4. 16th Modern trends in inorganic chemistry – XVI, Department of Chemistry, Jadavpur University, Kolkata, India, December 3-5, 2015. (Poster Presentation)
5. Modern 19th CRSI National Symposium in Chemistry, University of North Bengal, Siliguri, West Bengal, India, July 14-16, 2016. (Poster Presentation).
6. 17th Modern trends in inorganic chemistry – XVII, Department of Chemistry, National Chemical Laboratory, Pune and IISER Pune, India, December 10-14, 2017. (Poster Presentation: ACS Organometallics BEST POSTER AWARD).
7. 28th International Conference on Organometallic Chemistry (ICOMC-2018). Florence, Italy, July 15-20, 2018. (Poster Presentation).