Curriculum Vitae

Dr. MRINAL KANTI GHOSH
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Employment / Research Experience:	
Current Position (from 04.07.2018)	State Aided College Teacher-1 (Seven years of teaching experience till date) Department of Chemistry, Srikrishna College, West Bengal, India
Research Experience (2013-2018)	More than five years of research experience in 1. Inorganic/Organometallic synthesis, 2. Ruthenium organometallics, 3. Dirhenium complexes.

Education:	
Ph.D (2018)	Department of Chemistry, University of Kalyani, West Bengal, India Supervisor: Dr. Swarup Chattopadhyay Thesis Title: "Organometallic Chemistry of Ruthenium Incorporating Different Chelating Ligands".
M.Sc. (2011)	University of Kalyani, West Bengal, India *Major*: Inorganic; *Minor*: Organic, Physical, Analytical
B.Sc. (2009) (Hons.)	University of Kalyani, West Bengal, India *Major*: Chemistry, *Minor*: Physics, Mathematics

Awards and Scholarships:

* Awarded a Junior Research Fellowship (All India Rank UGC-79) after qualifying National Eligibility Test (NET-2015) conducted by Council of Scientific and Industrial Research (CSIR), Government of India. Also qualified for lectureship in colleges and universities.

* Qualified in Graduate Aptitude Test in Engineering (GATE-2012, All India Rank 973) conducted by Indian Institute of Technology (IIT).

* Awarded National Scholarship (sponsored by Government of India).

Research Interests:

1. Inorganic/Organometallic synthesis,
2. Chemistry of ruthenium organometallics, Dirhenium complexes (multiple bonds)
3. Electrochemistry

Additional Skills:

* Conversant with commonly used computer software (MS Excel, MS PowerPoint, MS Word, ChemDraw, Chem3D Pro 7.0, gOpenMol, Mercury 2.2, Diamond 3, Ortep 3V2, ISIS draw 2.2, OriginPro 6.1, APEX4, Olex2-1.5 etc.), search databases (Scopus, Reaxys etc.).

* Instruments Operated: IR, UV-vis, Fluorimeter, Electrochemistry System, HP Z400 workstation etc.

* Experienced to perform different theoretical work (geometry optimization, single point energy calculation, TD-DFT by using **ORCA2.9.1** software package).

List of Publications:

1. "Reactions of the Dirhenium(III) Complex $Re_2(\mu\text{-}O_2CCH_3)_4Cl_2$ with Triphenylguanidine: Dirhenium Paddlewheel Complex Versus the Mononuclear Quadruple Bond Cleavage Product" Suman Mallick, **Mrinal Kanti Ghosh**, Rajat Saha and Swarup Chattopadhyay* ***Polyhedron*** **2014**, *71*, 104–110.
2. "Synthesis, Structure and Spectral Properties of Dithiocarbamato Bridged Dirhenium(III,II) Complexes: A Combined Experimental and Theoretical Study" Suman Mallick, **Mrinal Kanti Ghosh**, Manoj Mohapatra , Sudip Mohapatra and Swarup Chattopadhyay* ***Inorg. Chim. Acta*** **2015**, *424*, 129-135.
3. "Acetylacetonato Chelated Ruthenium Organometallics Incorporating Imine–phenol Function: Spectroscopic, Structural, Electrochemical and Cytotoxicity Studies" Suman Mallick, **Mrinal Kanti Ghosh**, Ananda Sarkar, Samir Jana, Arindam Bhattacharyya, Sudip Mohapatra and Swarup Chattopadhyay* ***Inorg. Chim. Acta*** **2015**, *430*, 36–45.
4. "Triphenylguanidine-Promoted *ortho*-Metalation Reaction in a Triply Bonded Dirhenium System – Spectroscopic, Structural, and Computational Studies" Suman Mallick, **Mrinal Kanti Ghosh** and Swarup Chattopadhyay* ***Eur. J. Inorg. Chem***. **2015**, 1759–1765.
5. "Dirhenium Paddlewheel Complexes Bearing *para*-Substituted Triphenylguanidinate Ligands : Synthesis, Spectroscopic and Computational studies" Suman Mallick, **Mrinal Kanti Ghosh**, Anikul Islam and Swarup Chattopadhyay* ***J. Indian. Chem. Soc. 2015,*** *92*, 1875-1883.
6. "Cleavage of Ru-C(aryl) Bond of a Four-membered Ortho-metalated Ruthenium(II) Organometallics by Mercaptopyrimidine and Pyridine-2,6-dicarboxylate Ligands: Spectroscopic, Structural and Computational Studies" **Mrinal Kanti Ghosh**, Suman Mallick, Anikul Islam, Sudip Mohapatra and Swarup Chattopadhyay****Polyhedron*** **2016**, *104*, 73–79.
7. "The First Examples of Multiply Bonded Dirhenium(III,II) Paramagnetic Complexes that Contain Nitrobenzoate Ligands: Spectroscopic, Structural, Cytotoxicity and Computational Studies" Suman Mallick, **Mrinal Kanti Ghosh**, Suman Mandal, Vinayak Rane, Ramakant Kadam, Annesha Chatterjee, Arindam Bhattacharyya and Swarup Chattopadhyay****J. Chem. Soc., Dalton Trans,*** **2017,** *46***,** 5670–5679.

8. "Ruthenium─Carbon(Aryl) Bond Cleavage and Change in the Ligand Coordination Mode in a Four-Membered Ortho-Metalated Ruthenium(II) Organometallics Promoted by Thiolato Ligands" **Mrinal Kanti Ghosh**, Suman Mandal, Anikul Islam, Sudip Mohapatra, and Swarup Chattopadhyay* **ChemistrySelect, 2017**, 2, 6710–6716.

9. "Spectroscopic, structural, electrochemical and cytotoxicity studies of dithiocarbamato chelated ruthenium organometallics incorporating imine-phenol function." **Mrinal Kanti Ghosh**, Suman Mandal, Sudip Mohapatra, Annesha Chatterjee, Arindam Bhattacharyya, Swarup Chattopadhyay* ***J. Coord. Chem. 2019***, 72(Issue-1), 180-200.

10. "Pyridine-2-olato chelated ruthenium(II) organometallics incorporating imine-phenol function: spectroscopic, structural, electrochemical and theoretical studies" Anikul Islam, **Mrinal Kanti Ghosh**, Suman Mandal, Paula Brandão, Swarup Chattopadhyay* ***J. Coord. Chem. 2019***, 72(Issue-1), 164-179.

11. "A series of ruthenium(II) organometallic complexes incorporating pyridine-2-carboxylato ligand: Detailed spectroscopic and computional studies" Anikul Islam, **Mrinal Kanti Ghosh**, | Swarup Chattopadhyay*, ***Journal of the Indian Chemical Society***, volume 98, issue 4, **2021**. http://dx.doi.org/10.1016/j.jics.2021.100048

12. "Benzothiazole and benzoxazole promoted cleavage of Ru − C(aryl) bond in a four-membered ortho-metalated ruthenium(II) organometallics" Jagannath chowdhury, **Mrinal Kanti Ghosh**, Purnananda Garu, Swarup Chattopadhyay* ***Struct. Chem. 2023*****,** https://doi.org/10.1007/s11224-023-02137-9

13. "Phenolato and alkoxo promoted change in the ligand coordination mode in a four-membered ortho-metalated ruthenium(II) organometallics" **Mrinal Kanti Ghosh**, Jagannath chowdhury, Purnananda Garu, Arijit Mondal, Manoj Mohapatra, Indranil Chakraborty, Swarup Chattopadhyay* ***Polyhedron*** **2025**, *269*,117387,https://doi.org/10.1016/j.poly.2025.1173

Selected Symposium/Conference Presentation :

1. *"Ru-C(aryl) Bond Cleavage of an Ortho-metalated Ruthenium(II) Organometallics*"
   National Seminar on Current Trends in Chemistry-VII (NSCTC-VII), February 24, 2016 Organized by Department of Chemistry, University of Kalyani, Kalyani, India.

2. *"Spectroscopic, Structural and Computational Studies of Dirhenium Complexes Incorporating the Guanidinato and Dithiocarbamato Lligands"*
   National Conference on Chemistry Interfacing With Biology and Physics, January 27-28, 2017 organized by Indian Institute of Science Education and Research Kolkata (IISER Kolkata), Inida.

Webinar Attended:

- Participated in the Ministry of Human Resources Development (MHRD)- Scheme for Promotion of Academic and Research Collaborations (SPARC) supported International online Faculty Development Programme on "Translational And Interdisciplinary Research In Human Diseases Management" organized by the Centre for Drug Discovery and Development, Sathyabama Institute of Science and Technology, Chennai from 24th to 30th July 2020.
- Participated in One Week Online FDP on "Engineering Physics and Materials Science", organized by Department of Physics, Chaitanya Bharathi Institute of Technology, Hydrabad from 03-08-2020 to 07-08-2020.

- Participated in One Day International Webinar on "Covid-19 Pandemic: a Search for Relief" organized by the Department of Chemistry in Association with IQAC, Charuchandra College, Kolkata, West Bengal, India, on 22nd August, 2020
- Participated in the 3 days-webinar series titled "International Virtual Symposium On Advances In Chemical Sciences" held on 14th, 21st & 24th September 2020 organized by Department of Chemistry, Diamond Harbour Women's University, West Bengal in association with Royal Society of Chemistry.
- Participated in One Day State Level Webinar on "Covid 19 and Black fungus" on 23rd June 2021 organized by NSS, Srikrishna College, Bagula, West Bengal.
- Participated in One Day International Chemistry Webinar on "Fluorescence sensing and degradation of Lignin" on 1st October 2021 organized by Chanchal College, Malda, west Bengal

Declaration: I do hereby declare that the particulars of information and facts stated above are true, correct and complete to the best of my knowledge and belief.

Mrinal Kanti Ghosh

Dr. Mrinal Kanti Ghosh