UNIVERSITY OF CALCUTTA
FACULTY ACADEMIC PROFILE

1. **Full name of the faculty member**: Dr. Ramananda Maity
2. **Designation**: Assistant Professor
3. **Specialization** : Inorganic Chemistry

Home Page Link:

4. **Contact information**:

Dept. of Chemistry,
Rajabazar Science College, 92-Acharya Prafulla Chandra Road,
University of Calcutta, Kolkata -700009, West Bengal, India
***Email ID**: rmchem@caluniv.ac.in*

6. **Academic qualifications**:

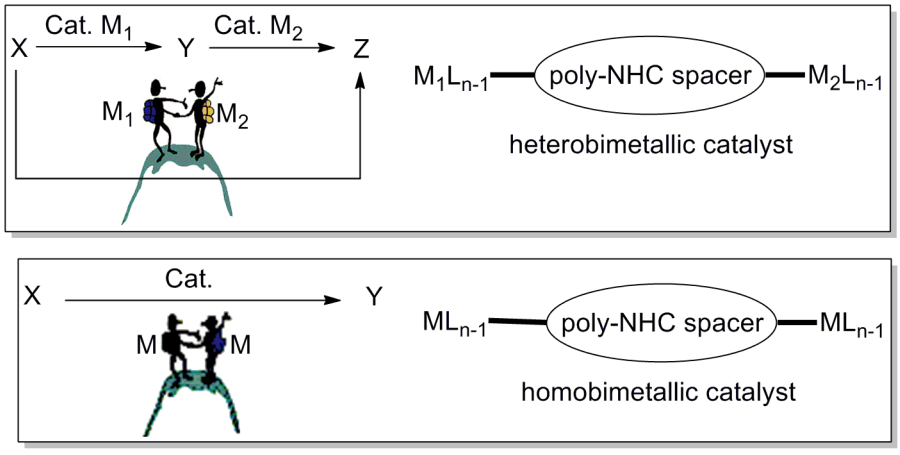
Abbreviation of the degree	College/ university
Ph.D.	**University of Münster, Germany** (2009-2013), under the guidance of **Prof. F. E. Hahn**. The doctoral thesis work was based on orthometalated heterobimetallic complexes.
M.Sc.	**IIT Madras** (2007-2009); Project supervisor: Prof. Dillip Kumar Chand; The M.Sc. project work was based on the synthesis of Pd^{II} complexes.
B.Sc.	St. Paul's C. M. College, University of Calcutta (2004-2007)

7. **Positions held/ holding:**

Tenure	**Positions held/ holding**
April 2016 to date	Assistant Professor in Chemistry at University of Calcutta, Kolkata, India
October 2015 to April 2016	Assistant Professor in Chemistry at Dibrugarh University, Assam, India
September 2015 to October 2015	**Post-doctoral Fellow** under Prof. S. Inoue at Technische Universitatät Berlin, Germany
June 2013 to August 2015	**Post-doctoral fellow** under Prof. B. Sarkar at Freie Universität Berlin, Germany

8. **Research interests**:

- Polynuclear complexes possessing both classical and mesoionic N-heterocyclic carbene (NHC) ligands (Homo-polynuclear & hetero-bimetallic types): Synthesis and cooperative catalysis.



- Chiral NHC complexes and their applications in asymmetric catalysis.

9. **Research guidance**:

- Number of students pursuing **PhD**: **4**

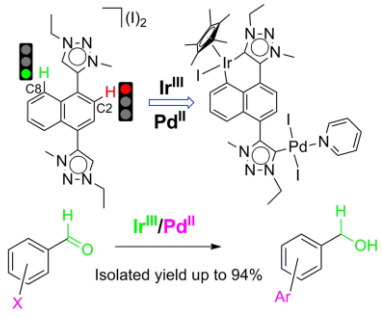
 Adhir Majumder M.Sc. : Kalyani University *adhirmajumder0404@gmail.com*	 Rajat Naskar M.Sc. : NIT Rourkela *rajatnaskar94@gmail.com*	 Tarak Nath Saha M.Sc. : University of calcutta *tarak151293@gmail.com*	 Bhaskar Mondal M.Sc. : University of calcutta *bhaskarorg95@gmail.com*

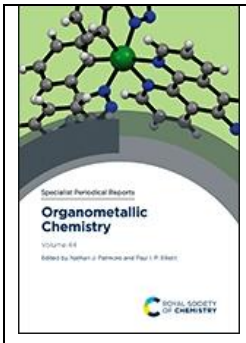
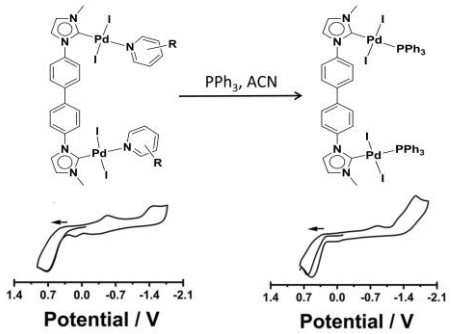
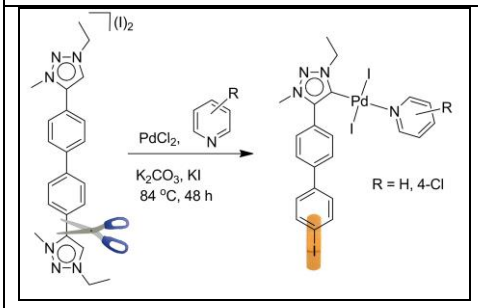
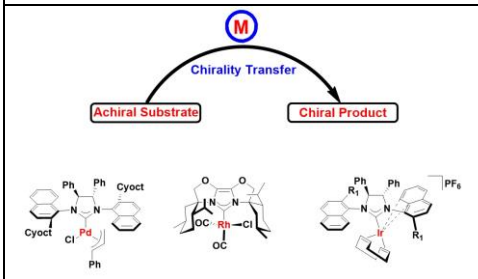
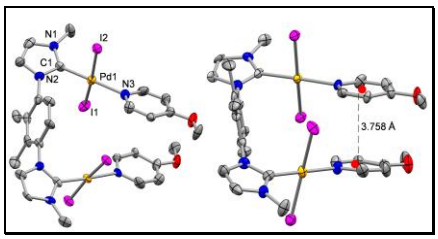
- Number of **MSc** project student supervised: **16**

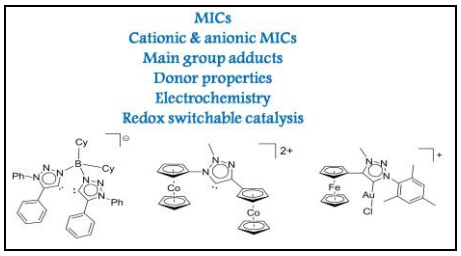
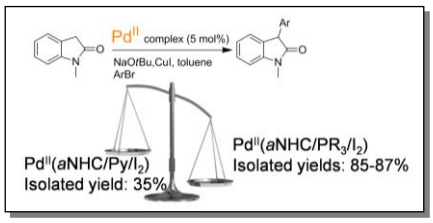
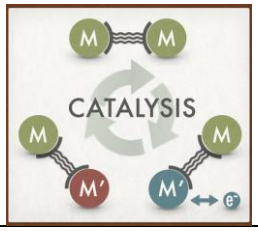
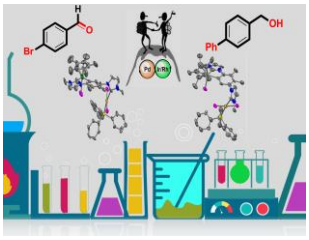
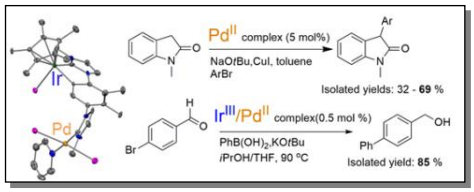
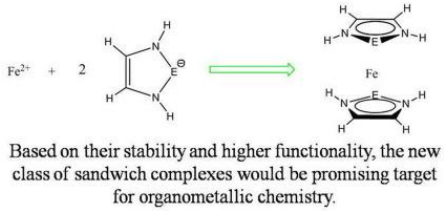
10. **Projects:**

Sr. No.	Title of the project	Funding agency	Period	Amount (Rs)
01	"Highly Conjugated Supramolecular Organometallic Architectures Bearing Polycarbene Ligands: Redox-Activity, Cooperativity, Molecular Hosts and Selective Organic Transformations"	DST-SERB	2019-2022	*37,220,00.00*
02	"Heterobimetallic N-Heterocyclic Carbene Complexes for Tandem Catalysis"	UGC	2017-2019	*10,000,00.00*

11. **List of publications**:

From University of Calcutta:	
	23. " Naphthalene-Based Heterobimetallic Triazolylidene Ir^{III}/Pd^{II} Complex: Regioselective to Regiospecific C–H Activation, Tandem Catalysis and Copper-Free Sonogashira Reaction" *A. Majumder, R. Naskar, P. Roy, B. Mondal, S. Garai, and* ***R. Maity*** **, Dalton Trans., 2023, Accepted Article.*

	22. "Redox and photochemical/photophysical properties of compounds containing mesoionic carbene ligands " **R. Maity*** and B. Sarkar*, *RSC Book Chapter: Organometallic Chemistry, 2000, Vol 44,*
	21. "Dinuclear Pd^{II} Complexes Bearing Mixed NHC/Py/PPh_3 Donor Set ligands: Catalytic Applications and Electrochemical Investigations" R. Naskar, B. Mondal, A. Majumder, J. Bag *and* **R. Maity***, *Appl. Organomet. Chem.*, 2022.
	20. "Synthesis of Pd^{II} Triazolylidene Complexes via an Unusual C_{sp2}-C_{sp2} Decoupling Reaction: Applications in α-Arylation of Amide and Suzuki–Miyaura Coupling Reactions" R. Naskar, S. Sinhababu, A. Majumder *and* **R. Maity***, *ChemSelect*, 2022, DOI: 10.1002/slct.202201615
	19. "Palladium, Iridium and Rhodium Complexes Bearing Chiral N-Heterocyclic Carbene Ligands Applied in Asymmetric Catalysis" N. Mukherjee, B. Mondal, T. N. Saha and **R. Maity***, *Appl. Organomet. Chem.*, 2022.
	18. "Bimetallic Pd^{II} Complexes with NHC/Py/PCy_3 Donor Set Ligands: Applications in α-Arylation, Suzuki-Miyaura and Sonogashira Coupling Reactions" R. Naskar, A. Majumder, by *A. Majumder, R. Naskar, S. J. Phukan and* **R. Maity***, *New J. Chem*, 2022, DOI: doi.org/10.1039/D2NJ01852G

	17. "Chemistry of Compounds Based on 1,2,3-Triazolylidene-Type Mesoionic Carbenes" **R. Maity* a**nd B. Sarkar*, *JACS Au.* **2022**, *2*, 22-57.
	16. "Palladium(II) Complexes Bearing a Mixed Set of *a*NHC/Py/PR$_3$/I$_2$ Ligands: Applications in α-Arylation of Amide and Suzuki-Miyaura Coupling Reactions" R. Naskar, A. Majumder, K. Kundu, S. Biswas, M. S. Maji, **R. Maity***, *J. Organomet. Chem.* 2021, DOI: org/10.1016/j.jorganchem.2021.121925
	15. "Cooperative Effects in Multimetallic Complexes Applied in Catalysis" **R. Maity,*** B. S. Birenheide, F. Breher*, B. Sarkar*, *ChemCatChem.* 2021, 13, 2337-2370.
 **Front Cover**	14. "Heterobimetallic Carbene Complexes Bearing Cyclometalated Ir^{III}/Rh^{III} and Mixed NHC^Py/PPh$_3$ Coordinated Pd^{II} Centers: Structures and Tandem Catalysis" A. Majumder, T.N. Saha, N. Majumder, R. Naskar, K. Pal, **R. Maity***, ***Eur. J. Inorg. Chem.***, 2021, 1104-1110.
	13. "Homo-and Heterobimetallic Complexes Bearing NHC Ligands: Applications in α-Arylation of Amide, Suzuki–Miyaura Coupling Reactions and Tandem Catalysis"A. Majumder, R. Naskar, P. Roy, **R. Maity***, ***Eur. J. Inorg. Chem.***, 2019, 1810-1815.
	12. "Iron sandwiched between group 13 analogues of N-Heterocyclic carbene: A theoretical investigation"A. Boruah, M. P Borpuzari, **R Maity**, R. Kar*, ***J. Organomet. Chem.***, 2018, 863, 54-59.

From PhD & Post-Doc:

11. "Palladium Complexes Bearing Mesoionic Carbene Ligands: Applications in α-Arylation, α-Methylation and Suzuki–Miyaura Coupling Reactions" **R. Maity**, A. Verma, M. van der Meer, S. Hohloch, B. Sarkar*, ***Eur. J. Inorg. Chem.*** 2016 (1), 111-117.

10. "C-H activation in Ir^{III} and N-demethylation in Pt^{II} complexes with mesoionic carbene ligands: examples of monometallic, homobimetallic and heterobimetallic" **R. Maity**, T. Ticter, M. van der Meer

and B. Sarkar*, ***Dalton Trans***, 2015, 34, 18311-18315.

9. "Triply cyclometalated trinuclear iridium(III) and trinuclear palladium(II) complexes with a tri-mesoioniccarbene ligand" **R. Maity**, A. Mekic, M. van der Meer, A. Verma and B. Sarkar*, ***Chem. Commun.***, 2015, 34, 15106-15109.

8. "Di- and Trinuclear Iridium(III) Complexes with Poly-MesoionicCarbenes Synthesized through Selective Base-Dependent Metalation" R. Maity, M. van der Meer, S. Holoch and B. Sarkar*, *Organometallics*, 2015, 34, 3090–3096.

7. "Catalytic oxygenation of sp3 "C-H" bonds with Ir^{III} complexes of chelating triazoles and mesoioniccarbenes" S. Hohloch, F. L. Duecker, S. Kaiser, A. Bolje, **R. Maity**, J. Kosmrlj and B. Sarkar*, ***Dalton Trans***, 2015, 44, 686–693.

6. "Redox-active multinuclear Pd(II) complexes with bis- and tris-mesoioniccarbenes" **R. Maity**, M. van der Meer and B. Sarkar*, ***Dalton Trans***, 2015, 44, 46–49.

5. "Cyclometalated Mono- and DinuclearIr(III) Complexes with "Click"-Derived Triazoles and Mesoionic Carbenes" **R. Maity**, S. Hohloch, C.-Y. Su, M. van der Meer and B. Sarkar*, ***Chem. -Eur. J.***, 2014, 20, 9952–9961.

4. ''HeterobimetallicCarbene Complexes by a Single-Step Site-Selective Metallation of a Tricarbene Ligand'' **R. Maity**, H. Koppetz, A. Hepp and F. E. Hahn*, ***J. Am. Chem. Soc.***, 2013, 135, 4966–4969.

3. ''Metal center dependent coordination modes of a tricarbene ligand'' **R. Maity**, A. Rit, C. S. to Brinke, C. G. Daniliuc and F. E. Hahn*, ***Chem. Commun.***, 2013, 49, 1010–1013.

2. "Two Different, Metal Dependent Coordination Modes of a Dicarbene Ligand depending on the Metal Center Employed" **R. Maity**, A. Rit, C. S. to Brinke, J. Kösters and F. E. Hahn*, ***Organometallics***, 2013, 32, 6174–6177.

1. ''Heterotrimetallic complexes of a phenylene-bridge tricarbene ligand'' **R. Maity**, C. S. to Brinke and F. E. Hahn*, ***Dalton Trans.***, 2013, 42, 12857–12860.

12. ***Conference/*** **Invited Lectures:**

1. "Homo- and Heterobimetallic N-Heterocyclic Carbene Complexes: Employed in Catalysis" Young Scientists Conclave 2021 Organized by Indian Chemical Society (YSC-2021).
2. "Diverse Applications of Carbene Intermediates" 2020, Invertis University, India, (Invited Talk).
3. "Heterobimetallic N-Heterocyclic Carbene Complexes: Structure and Cooperative Tandem Catalysis"; IC-ETCS 2020, **R. Maity**, and A. Majumder, IIT Kgp, Oral presentation.
4. "Homo- and Heterobimetallic N-Heterocyclic Carbene Complexes: Structure and Cooperative Catalysis"; MTIC 2020, **R. Maity**, A. Majumder and R. Naskar, 2019, **IIT Guwahati**, Poster Presentation.
5. "Polynuclear NHC complexes: application in cooperative catalysis" **R. Maity**, *Challenges in Synthetic Chemistry and its industrial applications*, 2016, **NIT Rourkela**, India (Invited Talk).

13. **Awards/Achievements :**

- Early Career Research (ECR) Award from DST-SERB.
- Start-Up grant from UGC, India.
- Ph.D Scholarship from International NRW Graduate School of Chemistry, Münster, Germany.
- IITM Merit cum Means scholarship during M.Sc. at IIT Madras.

- Ranked **35** (99.49 percentile) in GATE held on 8th Feb, 2009.
- CSIR-NET qualified held on 21st December 2008.

Signature