

BANKURA UNIVERSITY



FACULTY ACADEMIC PROFILE/ CURRICULUM VITAE

- Name:** Dr. RAM CHANDRA MAJI
- Designation:** ASSISTANT PROFESSOR
- Date of Birth :** 25/07/1987
- Specializations :** Inorganic Chemistry
- Contact Information:**
Contact Address: Vill.- Marlu, P.O.- Keliapathar, Dist.- Bankura, Pin.-722136, West Bengal, India.
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6. Academic qualifications:

College/ University from which the degree was obtained	Abbreviation of the degree
Bankura Christian College/ The University of Burdwan	B.Sc
Indian Institute of Technology, Kanpur	M.Sc
National Institute of Technology Durgapur	Ph.D

- Past Employments/ Academic Experience: Post-Doctoral Experience:** 5th October 2017 to 7th May 2019 at Indian Institute of Science, Bangalore,

8. Research Interests:

- Synthesis of model complexes (both functional and structural) for metalloenzymes using newly designed chelating ligands.
- Metal-organic frameworks (MOFs) for gas storage and catalysis applications
- Activation of small molecule (H₂, O₂, CO₂, N₂) by transition metal complexes.
- Synthesis of fluorescence probes for cation and anion detection.

9. Research Projects:

Completed projects: Title: "Metal-BODIPY Conjugates for Phototherapeutic Applications using Near-IR Light", Sponsor: DST-SERB, Gov. of India, Principal Investigator: Dr. Ram Chandra Maji

10. Select list of publications:

a) *Journals / Online Journals:*

- A. Bhandari, **R. C. Maji**, S. Mishra, A. Kumar, S. K. Barman, P. Pratim Das, K. B. Ghiassi, M. M. Olmstead, and A. K. Patra., Model Complexes for the Nip Site of Acetyl Coenzyme A Synthase/Carbon Monoxide (CO) Dehydrogenase: Structure, Electrochemistry, and CO Reactivity. **Inorg. Chem.**, **2018**, 57, 13713-13727. DOI: 10.1021/acs.inorgchem.8b02276
- S. Dutta, S. Biswas, **R. C. Maji**, R. Saha, Environmentally Sustainable Fabrication of Cu_{1.94}S-rGO Composite for Dual Environmental Application: Visible-Light-Active Photocatalyst and Room-Temperature Phenol Sensor. **ACS Sustainable Chem. Eng.**, **2018**, 6,835–845. DOI: 10.1021/acssuschemeng.7b03186
- **R. C. Maji**, S. Mishra, A. Bhandari, R. Singh, M. M. Olmstead, A. K. Patra, A Copper(II) Nitrite That Exhibits Change of Nitrite Binding Mode and Formation of Copper(II) Nitrosyl Prior to Nitric Oxide Evolution. **Inorg. Chem.**, **2018**, 57, 1550–1561. DOI: 10.1021/acs.inorgchem.7b02897
- **R. C. Maji**, P. P. Das, A. Bhandari, S. Mishra, M. Maji, K. B. Ghiassi, M. M. Olmstead, A. K. Patra, Mixed valence copper–sulfur clusters of highest nuclearity: a Cu₈ wheel and a Cu₁₆ nanoball. **Chem. Commun.**, **2017**, 53, 3334-3337. DOI:10.1039/C6CC08301C
- **R. C. Maji**, P. P. Das, S. Mishra, A. Bhandari, M. Maji, A. K. Patra, Electron transfer mechanism of catalytic superoxide dismutation via Cu(II/I) complexes: evidence of cupric–superoxo/–hydroperoxo species. **Dalton Trans.**, **2016**, 45, 11898–11910. DOI:10.1039/C6DT02220K
- **R. C. Maji**, A. Bhandari, R. Singh, S. Roy, S. K. Chatterjee, F. L. Bowles, K. B. Ghiassi, M. Maji, M. M. Olmstead, A. K. Patra, Copper Coordinated Ligand Thioether-S and NO₂⁻ Oxidation: Relevance to Cu_M Site of Hydroxylases. **Dalton Trans.**, **2015**, 44, 17587–17599. DOI:10.1039/C5DT02184G
- S. K. Chatterjee, **R. C. Maji**, S. K. Barman, M. M. Olmstead, A. K. Patra, Hexacoordinate Nickel(II)/(III) Complexes that Mimic the Catalytic Cycle of Nickel Superoxide Dismutase. **Angew. Chem. Int. Ed.** **2014**, 53, 10184 –10189. doi.org/10.1002/anie.201404133
- **R. C. Maji**, S. K. Barman, S. Roy, S. K. Chatterjee, F. L. Bowles, M. M. Olmstead, A. K. Patra, Copper Complexes Relevant to the Catalytic Cycle of Copper Nitrite Reductase: Electrochemical Detection of NO(g) Evolution and Flipping of NO₂ Binding Mode upon Cu^{II} → Cu^I Reduction. **Inorg. Chem.** **2013**, 52, 11084–11095. DOI: 10.1021/ic401295t

- S. K. Chatterjee, S. Roy, S. K. Barman, **R. C. Maji**, M. M. Olmstead, A. K Patra, Shuttling of Nickel Oxidation States in N_4S_2 Coordination Geometry versus Donor Strength of Tridentate N_2S Donor Ligands. **Inorg. Chem.** **2012**, *51*, 7625–7635. DOI: 10.1021/ic300606g

11. Fellowships:

- Junior Research Fellowship from the Council of Scientific and Industrial Research, Govt. of India (2011-2013).
- Senior Research Fellowship from The Council of Scientific and Industrial Research, Govt. of India (2013-till date).
- National Post-Doctoral fellowship from Science and Engineering Research Board, Govt. of India (October, 2017-till date).

12. Awards:

- Qualified in Joint Admission Test for M.Sc. (JAM-2009) conducted by Indian Institute of Technology (IIT) amongst the Chemistry students of the country.
- Qualified in National Eligibility Test (CSIR-UGC NET) Examination (December, 2010) in UGC category.
- Qualified in Graduate Aptitude Test in Engineering (GATE-2011).
- National Post-Doctoral fellow from Science and Engineering Research Board, Govt. of India (October, 2017-till date).

13. Papers presented in Conferences, Seminars, Workshops and Symposia:

Conferences:

- “Superoxide Dismutation via $Cu(II/I)$ Complexes Follows Electron Transfer Mechanisms Contrasting to Copper-Zinc Superoxide Dismutase” by **R. C. Maji**, S. Mishra, A. Bhandari, A. K. Patra in National Conference on Recent Developments in Chemistry 2 (RDC-2) during October, 3-5, 2016 at National Institute of Technology Durgapur, West Bengal, India.
- “Ligand Donor Type Dictates The $Cu^{II/I}$ Mediated Thioether-S Oxidation: Insight to the Cu_M Site of Hydroxylases” by **R. C. Maji**, A. Bhandari, S. C. Moi, M. Maji, Apurba K. Patra in the International Symposium on Modern Trends in Inorganic Chemistry-XVI (MTIC-XVI) during December 03-05, 2015 at Jadavpur University, Kolkata, India.
- “Functional Modelling of Copper Nitrite Reductase” by **R. C. Maji**, S. K. Chatterjee, M. Maji, S. K. Barman, M. M. Olmstead, A. K. Patra in the International Symposium on Modern Trends in Inorganic Chemistry-XV (MTIC-XV) during December 13-16, 2013 at Indian institute of Technology Roorkee, Uttarakhand, India.

- “Functional modelling of Type-2 Copper Site of Copper Nitrite Reductases” by **R. C. Maji**, S. K. Chatterjee, A. K. Patra in National Conference on Recent Developments in Chemistry (RDC) during October, 03-05, 2013 at National Institute of Technology Durgapur, West Bengal, India.

14. **Other notable activities:**

- Demonstrated analytic technique in TEQIP-II sponsored short term course on “**Instrumental Application and Chemical Analysis of Environmental Sample**” during Jun 27 - July 03, 2016 organized by department of Chemistry, National Institute of Technology Durgapur, India.
- Demonstrated analytic technique in TEQIP-II sponsored short term course on “**Instrumental Application and Chemical Analysis of Environmental Sample**” during November 24-30, 2014 organized by department of Chemistry, National Institute of Technology Durgapur, India.