



Dr. Mriganka Das
Assistant Professor, Chemistry, SOS

Education Qualification:

Phd (Inorganic Chemistry), IIT-Indore : 2017
M.Sc (Inorganic Chemistry), University of Kalyani : 2012
B.Sc (Chemistry Hons.), University of Kalyani : 2010

Research Interest:

Study of the dynamics of metal complexes inside cellular environment, Development some bioactive anticorrosive biomaterials which can be used as a coating element in biomedical instruments or implants.

Publications: (Total No. of Publications – 12, Total Citations – 157, h-index – 7)

1. Nickel(II) complexes with flexible piperazinyl moiety : studies on DNA and protein binding and catecholase like properties - Mriganka Das, Rajendar Nasani, Manideepa Saha, Shaikh M Mobin, Suman Mukhopadhyay* – Dalton Trans. 2015, 44, 2299-2310 [Impact Factor – 4.17]
2. Copper complexes with flexible piperazinyl arm: nuclearity driven catecholase activity and interactions with biomolecules - Mriganka Das, Poulami Mandal, Novina Malviya, Indrani Choudhuri, Maria Adilia Januário Charmier, Susana Morgado, Shaikh M Mobin, Biswarup Pathak, Suman Mukhopadhyay* - J. Coord. Chem., 2016, 69 (24), 3619-3637 [Impact Factor – 1.7]
3. Investigation of chemical protease, nuclease and catecholase activity of two Cu(II) Schiff base complexes – Mriganka Das, Bidyut Kumar Kundu, Ritudhwaj Tiwari, Poulami Mandal, Rakesh

Ganguly, Debasish Nayek, Suman Mukhopadhyay* - *Inorganica Chimica Acta*, 2018, 469, 111-122 [Impact Factor – 2.2]

4. Enhanced pseudo-halide promoted corrosion inhibition by biologically active zinc(II) Schiff base complexes - Mriganka Das, Amrita Biswas, Bidyut Kumar Kundu, M. Adilia Januário Charmier, Attreyee Mukherjee, Shaikh M Mobin, G. Udayabhanu, Suman Mukhopadhyaya,* - *Chem. Eng. J.*, 2018, 357, 447. [Impact Factor – 6.7]
5. Targeted synthesis of cadmium(II) Schiff base complexes towards corrosion inhibition on mild steel - Mriganka Das, Amrita Biswas, Bidyut Kumar Kundu, Shaikh M Mobin, G. Udayabhanu, Suman Mukhopadhyay* - *RSc Advances*, 2017, 7, 48569-48585 [Impact Factor – 3.1]
6. Targeted water soluble Copper-tetrazolate complexes : Interactions with biomolecules and catecholase like Activities - Manideepa Saha, Mriganka Das, Rajendar Nasani, Indrani Choudhuri, Muhammed Yousufuddin, Hari Pada Nayek, Mobin M Shaikh, Biswarup Pathak, Suman Mukhopadhyay* - *Dalton Trans.*, 2015, 44, 20154-20167 [Impact Factor – 4.17]
7. A smart organic gel template as metal cation and inorganic anions sensor – Novina Malviya, Mriganka Das, Poulami Mandal, Suman Mukhopadhyay* - *Soft Matter*, 2017, 13, 6243-6249 [Impact Factor – 3.8]
8. Limiting nuclearity in formation of polynuclear metal complexes through [2 + 3] cycloaddition: synthesis and magnetic properties of tri- and pentanuclear metal complexes - Manideepa Saha, Rajendar Nasani, Mriganka Das, Arup Mahata, Biswarup Pathak, Shaikh M. Mobin, Luca M. Carrella, Eva Rentschlerb, Suman Mukhopadhyay* - *Dalton Trans.* 2014, 43, 8083-8093 [Impact Factor – 4.17]
9. The effect of remote substitution on formation of preferential isomers of cobalt(III)-tetrazolate complexes by microwave assisted cycloaddition- Manideepa Saha, Rajendar Nasani, Mriganka Das, Mobin M Shaikh, Biswarup Pathak, Suman Mukhopadhyay* - *Inorg. Chem. Front.*, 2014, 1, 599-610 [Impact Factor – 5.1]
10. Effect on catecholase activity and interaction with biomolecules of metal complexes containing differently tuned 5- substituted ancillary tetrazolato ligands – Manideepa Saha, Novina Malviya, Mriganka Das, Indrani Choudhury, Shaikh M. Mobin, Biswarup Pathak, Suman Mukhopadhyay* – *Polyhedron*, 2017, 121, 155-171 [Impact Factor – 2.2]
11. Nickel tetrazolato complexes synthesized by microwave irradiation : catecholase like activity and interaction with biomolecules – Novina Malviya, Poulami Mandal, Mriganka Das, Shaikh M. Mobin, Suman Mukhopadhyay* – *Journal of Coordination Chemistry*, 2016, 70 (2), 261-278 [Impact Factor – 1.7]
12. Substitution of iron with cobalt in the prosthetic group of bacterial cytochrome p450: Effects on the stability and structure of the protein – Abhijit Mondal, Mriganka Das, S. Mazumdar.* - *Inorganica Chimica Acta*, 2019, 487, 398-404 [Impact Factor – 2.2]

Industry Experience:

Feb, 2018 – Aug, 2019: Visiting Fellow, TIFR Mumbai.

Project: Redox metalloenzyme and biomimetic chemistry.

Aug, 2017 – Nov, 2017: Specially Appointed Researcher, Osaka University, Japan

Project: Metal clusters as a precursor of quantum dots.

Courses Taught:

Jul, 2012 – Jul, 2014: Teaching Assistant, IIT Indore

Courses: CH-103 (Tutorial for Fundamental Inorganic Chemistry) and CH-153 (Practical lab) of B.Tech undergraduates

Conference & Seminar:

1. 2nd Nov, 2018 : PAN TIFR Meet, Hyderabad organized by TIFR
2. 17th -20th Feb, 2016. : Sixth International Conference on Metals in Genetics, Chemical Biology and Therapeutics (ICMG 2016) organized by IISc Bangalore
3. 1st Feb, 2016 : Symposium on Advances in Chemistry with Biological and Industrial Relevance organized by B.M. College, Indore.
4. 22nd Sep, 2015 : Workshop on Intellectual Property Rights Organized by B.M. College, Indore
5. 10th – 11th Jan, 2014 : National Conference on Advances in Chemistry and their Biological and Industrial Relevance (ACBIR-2014) organized by NIT Rourkela
6. 4th Apr, 2014 : Laboratory Health & Safety Workshop Organized by IIT Indore in collaboration with RSC.
7. 30th – 31st Jan, 2014 : Frontier Lecture Series in Chemistry (FLSC-2014) Organized by IIT Indore in collaboration with JNCASR, Bangalore.
8. 2nd Mar, 2012 : National Seminar on Current Trends in Chemistry-VI (NSCTC-VI) Organized by University of Kalyani.
9. 29th Mar, 2011 : National Seminar on Seminar on Chemistry for a Better World Organized by University of Kalyani.
10. 1st – 3rd Feb, 2008 : Lecture Workshop on Concepts in Chemistry-II Organized by Krishnath College.

Awards & Honors:

- Qualified GATE – 2012 in chemistry
- Qualified JAM – 2010 in chemistry
- Qualified SET – 2014 in chemistry
- Qualified WBET – 2013
- Awarded as Business Professional Programmer from DOEACC Society, Govt. of India – 2010
- Certified in IPR from WIPO, Switzerland (Distance mode) - 2017
- State level champion in yoga competition – 2000
- Bronze medalist in state level bengali recitation competition - 2007

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