

# Dr. Madhusudan Shit

**Current Designation:** Associate Professor

**Department:** Chemistry

**Date of Joining:** 24.0.2008

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## 1. Academic Qualifications

Degree	Institution	Year	Subject/Discipline
M.Sc.	University of Calcutta	2005	Chemistry
Ph.D.	University of Calcutta	2018	Inorganic Chemistry
NET	Council of Scientific & Industrial Research	2005	Chemical Sciences
Gate	Dept. of Education, Ministry of HRD, Govt. of India	2005	Chemistry

## 2. Thesis Title

Ph.D. Thesis Title: “**Radical And Non-Radical Complexes of Vanadium (IV/V) Ions**”

## 3. Specialization and Area of Interests

Specialization: Inorganic Chemistry

Area of Interests: Co-ordination Chemistry: Synthesis, Characterization and DFT calculation

## 4. Teaching Responsibilities

Atomic structure, Chemical periodicity II, Chemical bonding, Bonding in co-ordination complexes, Bio-inorganic chemistry

## 5. Publications

### a. Research Papers in Journals

1. Oxidovanadium Complexes of 2,2'-Bipyridine, 1,10 Phenanthroline, and p-Nitro-o-aminophenol - Radical versus Nonradical States, European Journal of Inorganic Chemistry, Vol: 2016(3), Year: January 2015.

[Madhusudan Shit](#), [Sachinath Bera](#), [Suvendu Maity](#), Subrata Maji, Thomas Weyhermueller, Prasanta Ghosh.

2. Coordination of o-benzosemiquinonate, o-iminobenzosemiquinonate, 4,4'-di-tert-butyl-2,2'-bipyridine and 1,10-phenanthroline anion radicals to oxidovanadium(IV), [New Journal of Chemistry](#), Vol: 40(12), Year: **October 2016**.

3. Coordination of o-benzosemiquinonate, o-iminobenzosemiquinonate and aldimine anion radicals to oxidovanadium(IV), [New Journal of Chemistry](#), Vol: 41(11), Year: **May 2017**.

[Madhusudan Shit](#), [Sachinath Bera](#), [Suvendu Maity](#), Thomas Weyhermueller, Prasanta Ghosh.

4. Synthesis and Spectroscopic Characterization of a Photo-stable Tetrazinc(II)-Schiff base Cluster: A Rare Case of Ligand Centric Phenoxazinone Synthase Activity, [Polyhedron](#), 156, **September 2018**.

Mamoni Garai, Ajit Das, Mayank Joshi, Suvendu Paul, **Madhusudan Shit**, Angshuman Roy Choudhury, Bhaskar Biswas.

5. Ligand-Centered Radical Activity by a Zinc-Schiff-Base Complex towards Catechol Oxidation, ChemistrySelect, Vol: 3, Issue: 38, Page: 10774-10781, Year: **October 2018**.

[Subrata Das](#), Amrita Sahu, [Mayank Joshi](#), [Suvendu Paul](#), **Madhusudan Shit**, Angshuman Roy Choudhury, Bhaskar Biswas

6. Bio-mimetic of Catecholase and Phosphatase Activity by a Tetra-iron(III) Cluster, [Polyhedron](#), Vol: 174, Page: 114156, Year: **September 2019**.

[Chanchal Kumar Pal](#), [Shreya Mahato](#), Hare RAM Yadav, **Madhusudan Shit**, Angshuman Roy Choudhury, Bhaskar Biswas

7. Schiff Base Triggering Synthesis of Copper(II) Complex and its Catalytic Fate towards Mimics of Phenoxazinone Synthase Activity, [Inorganica Chimica Acta](#), Vol: 505, Page: 119468, Year: **January 2020**.

Prafullya Kumar Mudi, [Nilaj Bandopadhyay](#), [Mayank Joshi](#), [Madhusudan Shit](#), Suvendu Paul, Angshuman Roy Choudhury, Bhaskar Biswas

8. Ligand directed synthesis of a unprecedented tetragonalbipyramidal copper (II) complex and its antibacterial activity and catalytic role in oxidative dimerisation of 2-aminophenol: Applied Organometallic Chemistry, Vol. 34, Issue: 11, Page: 5935, Year: **July, 2020**.

Shreya Mahato, Nishith Meheta, Muddukrishnaiah Kotakonda, Mayank Joshi, Prasanta Ghosh, **Madhusudan Shit**, Angshuman Roy Choudhury, Bhaskar Biswas

9. Synthesis, structure, polyphenol oxidase mimicking and bactericidal activity of a zinc-schiff base complex: Polyhedron, Volume: 194, Page: 114933, Year: January 2021.

Shreya Mahato, Nishith Meheta, Muddukrishnaiah Kotakonda, Mayank Joshi, **Madhusudan Shit**, Angshuman Roy Choudhury, Bhaskar Biswas.

10. Nickel(II) di-aqua complex containing a water cluster: synthesis, X-ray structure and catecholase activity: New Journal of Chemistry, Volume: 45, Page: 2221, Year: **December, 2020**.

**Madhusudan Shit**, Suwendu Maity, Sachinath Bera, Prafullya Kumar Mudi, Bhaskar Biswas, Thomas Weyhermu"ller and Prasanta Ghosh.

11. Copper(II) complexes with a benzimidazole functionalized Schiff base: Synthesis, crystal structures, and role of ancillary ions in phenoxazinone synthase activity: Applied Organometallic Chemistry, [Volume: 35 Issue: 6](#), Page: 6211, Year: **June, 2021**.

Prafullya Kumar Mudi, Rajani Kanta Mahato, Mayank Joshi, **Madhusudan Shit**, Angshuman Roy Choudhury, Hari Sankar Das, Bhaskar Biswas.

12. Solvent induced distortion in a square planar copper(II) complex containing an azo-functionalized Schiff base: Synthesis, crystal structure, in-vitro fungicidal and anti-proliferative, and catecholase activity: Journal of Molecular Structure, Volume:1245, Page: 131057Year: **July, 2021**.

Subham Mukherjee, Chanchal Kumar Pal, Muddukrishnaiah Kotakonda, Mayank Joshi, **Madhusudan Shit**, Prasanta Ghosh, Angshuman Roy Choudhury, Bhaskar Biswas.

13. Coordination of reduced Schiff base anion to Pd(II): Synthesis, characterization, DFT calculation and catecholase activity: Journal of the Indian Chemical Society, Volume: 98, Issue: 11, Page: 100186, Year: **September, 2021**.

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14. A thiomethyl-substituted imidazolyl imine functionalized copper(II) complex: synthesis, structural characterization, phenoxazinone synthase mimics and biological activities, [Polyhedron](#), Vol: 218, Page: [115783](#), Year: **April 2022**.

Nilaj Bandopadhyay, Krishnendu Paramanik, Prafulla Kumar Mudi, Gayetri Sarkar, Muddukrishnaiah Kotakonda, **Madhusudan Shit**, Bhaskar Biswas, Hari Sankar Das.

15. Oxo transfer reaction: Dioxido and monooxidovanadium (V) complexes, [Journal of the Indian Chemical Society](#), Vol: 99(6), Page: 100518, Year: **May 2022**.

[Madhusudan Shit](#), [Souvik Mukherjee](#), [Suvendu Maity](#), [Sachinath Bera](#), Prasanta Ghosh

16. Coordination Complex of Cu(II) with Ligand Containing Carboxylic Acid Group: Synthesis, Characterization and Catecholase Activity, [Asian Journal of Chemistry](#), Vol: 34(8), Page: 2161-2166, Year: **July 2022**.

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## 6. Oral/Poster Presentations

Title	Event	Type (Oral/Poster)	Date	Venue
1.Oxidovanadium Complexes of 2,2'-Bipyridine, 1,10 Phenanthroline, and <i>p</i> -Nitro- <i>o</i> -aminophenol – Radical versus Nonradical States	A National Level seminar on Nurturing Chemistry: Bonding and beyond	Poster	05/12/2017	Department of Chemistry, The Bhawanipur Education Society College
2. Co-ordination of 1,10-phenanthroline and 2,2-bipyridine to oxidovanadium(IV)	An International Seminar on "Itinerary of Classical to Modern Era of Chemistry"	Poster	04/11/2019	Department of Chemistry, The Bhawanipur Education Society College

3. Oxidovanadium(IV) complexes of 2,2-bipyridine, 1,10-phenanthroline and p-nitro-o-aminophenol	An International Seminar on "Elements of Periodic Table in the Chemical Avenues of Biological World	Poster	17/12/2019	Department of Chemistry and Department of Zoology, South Calcutta Girls College
4. Co-ordination of o-iminobenzosemiquinone anion radical to oxidovanadium(IV)	International seminar on "International year of the Periodic table of Chemical Elements-2019"	Poster	22/11/2019 & 23/11/2019	Department of Chemistry, University of North Bengal
5. Stabilization of organic radicals by oxidovanadium (IV) ion	National level seminar on "Modern Trends in Chemistry for Sustainable Development"	Poster	03/03/2020	Department of Chemistry, Vijaygarh Jyotish Ray College, Kolkata

## 7. Administrative Responsibility

- i) Joint Convener, Building sub-committee, Dinabandhu Andrews College
- ii) Member, Online Admission and Registration sub-Committee, Dinabandhu Andrews College
- iii) Purchase and E-Tender sub-Committee
- iv) CAS and Promotion sub-Committee
- v) Research and Publication sub-Committee