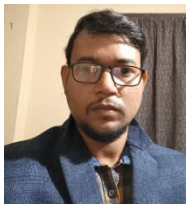
Curriculum Vitae



Dr. SANDIP MONDAL (W. B. E. S.)

Designation in (subject): Assistant Professor, Department of Chemistry

Darjeeling Government College, Darjeeling, West Bengal

Highest qualification: M. Sc, Ph.D. (Inorganic Chemistry)

Contact details/ Office address: Department of Chemistry,
Darjeeling Government College, Darjeeling,
West Bengal, Pin-734101

Vidwan ID: 391236

Email id: sandipmondal30@gmail.com

Date of joining to this institution: 02.11.2020.

Date of joining W.B.E.S.: 02.11.2020.

Previous position(s) held/ Additional charges: Nill

Teaching experience in years & months: 3.5 Years.

Fellowship, Awards, Recognition and Honours (if any):

1. **Joint CSIR-UGC Junior Research Fellowship 2012**
2. **2019-2020 DSK Post-Doctoral Fellowship** (**Jadavpur University**)
   Project Title: Stabilization of Quinone Based Nitrogen and Oxygen Centered Radicals: Syntheses of Heterocyclic Compounds by Redox Cascade Route, Chemical and Electro Catalytic Activity.

Courses taught:

- Under graduate (Honours & Programme)
- In the UG level, my teaching area is the following topics on inorganic chemistry (Atomic structure, periodic properties, Chemical bonding, redox chemistry, comparative periodic properties study of s, p, d, f block elements, coordination compounds, Bioinorganic chemistry, lanthanoids and actinoids elements, organometallic complexes and their catalytic applications, reaction Kinetics and mechanistic pathway of coordination complexes etc.)
- Laboratory Experiments based on Inorganic Chemistry for UG course (Quantitative and qualitative Inorganic Chemistry)

Research area/ interest: Coordination Chemistry, Inorganic Synthesis, Bioinorganic Chemistry, EPR Free Radicals, Crystal Structure analyses by Single Crystal X-ray Diffraction, Stabilization of organic radical through transition metal complexes and stydy their redox properties by UV-Vis spectroscopy, cyclic voltammetry, EPR spectroscopy and spectro-electro chemistry process.

List of publications:

1. S. Bera, **S. Mondal**, S. Maity, T. Weyhermüller, and P. Ghosh. Radical and Non-radical States of the [Os(PIQ)] Core (PIQ = 9,10-Phenanthreneimino quinone): Iminosemiquinone to Iminoquinone Conversion Promoted o-Metalation Reaction. *Inorg. Chem.* **2016**, *55*, 4746-4756.

2. S. Mondal, S. Maity, and P. Ghosh. A Redox Active Cascade Precursor: Isolation of a Zwitterionic Triphenylphosphonio- Hydrazyl Radical and an Indazolo-indazole Derivative. *Inorg. Chem.* **2017**, *56*, 8878- 8888

3. **S. Mondal**, S. Bera, S. Maity, and P. Ghosh. Cobalt Ion Promoted Redox Cascade: A Route to Spiro Oxazine-oxazepine Derivatives and a Dinuclear Cobalt(III) Complex of a N-(1,4-naphthoquinone)-o-aminophenol Derivative. *Inorg. Chem.* **2017**, *56*, 13194-13204.

4. S. Maity, S. Kundu, **S. Mondal**, S. Bera, and P. Ghosh. Molecular and Electronic Structures of Ruthenium Complexes Containing an ONS-Coordinated Open-Shell π Radical and an Oxidative Aromatic Ring Cleavage Reaction. *Inorg. Chem.* **2017**, *56*, 3363–3376.

5. **S. Mondal**, S. Bera, S. Maity, and P. Ghosh. Orthometalated Nâ€'(Benzophenoxazine)â€'oâ€'aminophenol: Phenolato versus Phenoxyl States. *ACS Omega*. **2018**, *3*, 13323–13334.

6. **S. Mondal**, S. Maity, P. Ghosh. Orthopalladated 1, 4-iminonaphthoquinone derivative: Syntheses, redox series, molecular and electronic structures. *Inorganica Chim. Acta*, **2019**, *487*, 240-246.

7. **S. Mondal**, S. Bera, and P. Ghosh. Redox Cascades and Making of a C–C Bond: 1, 2-Benzodiazinyl Radicals and a Copper Complex of a Benzodiazine. *J. Org. Chem*. **2019**, *84*, 4, 1871–1881.

8. M. Thakur, A. A. Khan, **S. Mondal**, S. Saha, M. Bhattacharya, N. N. Ghosh, K. Biswas. Nitro-substituted Schiff base: Synthesis and its diverse application in biological activity, molecular docking study and copper complex preparation. *IRJMST*, **2022**, 13(3), ISSN 2250-1959 (online).

9. R. Patra, **S. Mondal**, D. Sinha, K. K. Rajak. Mono versus Dinuclear Vanadium (V) Complexes: Solvent Dependent Structural Versatility and Electro Syntheses of Mixed Valence Oxovanadium(IV/V) Entities in Solution. *ACS Omega*. **2022**, *7*, 13710–11721.

10. S. Mukherjee, **S. Mondal**, P. Ghosh. Activation by a Coordinated -NH- Function: Hydrogen Atom Transfer and Aromatic Ring Oxidation. *Inorg. Chem*. **2023**, 62, 21147–21155.

11. U. Shee, D. Sinha, **S. Mondal**, K. K. Rajak. Electrochemical water oxidation reaction by dinuclear Re(v) oxo complexes with a 1,4-benzoquinone core via the redox induced electron transfer (RIET) process. *Dalton Trans.*, **2024,** DOI: 10.1039/D4DT00057A.

Patents published:

1. **Title of the Patent "NOVEL HYDRAZYL RADICAL AND INDOZOLO INDAZOLE DERIVATIVES"**

Applicants**: Sandip Mondal** and Prasanta Ghosh
Patent status**:** Published at 28.12.2018
Patent Number: 201731022059

2. **Title of the Patent** "**NOVEL OXAZINE-OXAZEPINE DERIVATIVES AND PROCESS OF PREPARATION THEREOF"**

Applicants**: Sandip Mondal** and Prasanta Ghosh
Patent status**:** Published at 29.03.2019
Patent Number: 201731033969

*Books/chapters in books etc.:

1. "Green Chemistry: Effectiveness and Multidimensional Applications" chapter for the book of "Research and Innovations in Chemical Sciences an Approach towards Qualitative and Quantitative Studies and Applications" by Bharti Publications, New Delhi-110002 (India). ISBN: 978-93-91681-17-3

2. "Application of Nanotechnology for Energy" chapter for the book of "FRONTIERS IN NANOTECHNOLOGY" by Bharti Publications, New Delhi- 110002 (INDIA), ISBN: 978-93-91681-74-6

Google Scholar link/ / ORCID ID ((if any): https://orcid.org/0000-0002-7237-0460

ResearchGate link: https://www.researchgate.net/profile/Sandip-Mondal-11

Presentations/ attended in conferences/ workshops/seminars/symposium etc: NA

Details regarding participation in FIP/OP/RC:

Sl. No.	Programme	Duration	Organized by
1.	UGC-Sponsored Refresher Course in Chemistry	**16th March to 31st March 2021**	**University of Calcutta**
2	UGC-Sponsored 4th Faculty Induction Programme (Guru Dakshta)	**31st September 2021 to 7th October 2021**	**Jadavpur University, Kolkata**

Academic Membership: Nil