

Teacher's Profile

General Information

Dr. Ujjwal Das

Designation: Associate Professor (Stage-IV)

Department: Chemistry

Contact Information: udsccs@sarsunacollege.ac.in

ujjwalsccs@gmail.com



Specialization: Inorganic Chemistry

Academic Qualification

M. Sc. From University of Calcutta in 2004

Ph.D. from Jadavpur University in 2014

Thesis Title: *“Some Aspects of the Organosulfur Chemistry of the Rhodium and Iridium.”*

Professional Information

Joined Sarsuna College: as Assistant Professor (Stage-I)

From: 26th September, 2008

Previous Experiences: Lecturer [W.B.E.S.]

Substantive Post

Department of Chemistry

Darjeeling Govt. College [WB]

From: March, 2007 to September, 2008

Area of Interest:

a. Co-ordination Chemistry, b. Organometallic Chemistry, c. Bio-inorganic chemistry, d. Reaction Rate and Mechanism, e. Synthesis of inorganic metal complexes.

Research Publication

Journal Publication:

1. RhCl₃-Assisted C–H and C–S Bond Scissions: Isomeric Self-Association of Organorhodium(III) Thiolato Complex. Synthesis, Structure, and Electrochemistry

Kausikisankar Pramanik, Ujjwal Das, Basab Adhikari, Deepak Chopra, and Helen Stoeckli-Evans

Inorg. Chem., **2008**, *47* (2), 429–438. [DOI: 10.1021/ic7016006]

2. Iridium-mediated C–S bond activation and transformation: organoiridium(III) thioether, thiolato, sulfinato and thiyl radical compounds. Synthesis, mechanistic, spectral, electrochemical and theoretical aspects

Ujjwal Das, Tapas Ghorui, Basab Adhikari, Sima Roy, Shuvam Pramanik and Kausikisankar Pramanik

Dalton Trans., **2015**, *44*, 8625–8639. [DOI: 10.1039/C5DT00448A]

3. Pyridyl-imine-thioether complexes of ruthenium(II) : Synthesis, structure and optoelectronic and electron transfer properties

Basab Adhikari, Shuvam Pramanik, Tapas Ghorui, Sima Roy, Ujjwal Das and Kausikisankar Pramanik

J. Indian Chem. Soc., **2015**, *92*, 1903–1912.

4. Effect of Main Versus Ancillary Ligand Substitution on the Photophysical Properties of a Series of Ir(III) Complexes: A Detailed Theoretical Investigation

Pallab Gayen, Ujjwal Das and Snehasis Banerjee

J. Phys. Chem. A, **2020**, *124*, 4654–4665. ISSN No.: 1089-5639 (print), 1520-5215 (Web) [DOI: acs.jpca.0c03102]

5. Organophosphorus Pesticide as Nerve Agent: Inhibition and Reactivation of AChE: A Review

Ujjwal Das

Asian Journal of Chemistry; **2022**, *Vol. 34, No. 4*, 767-773. ISSN No.: 0975-427X (Online), 0970-7077 (Print) [DOI: ajchem.2022.23568]

6. Sulfur-center Reactivity toward Oxygenation Mediated by Ruthenium: Effective Bioactive Compounds (A Review)

Ujjwal Das

Orient. J. Chem., **2022**, *Vol. 38(3)*, 555-567. ISSN No.:0970-020X. [DOI: ojc/380305]

7. Platinum Group Metals Bonded Thiolato Sulfur Oxygenation: Photoactivity and Bioactivity

Ujjwal Das

Asian Journal of Chemistry; **2022**, *Vol. 34, No. 12*, 3059-3070. ISSN No.: 0975-427X (Online), 0970-7077 (Print). DOI: ajchem.2022.24007]

Other Publication:

1. Paper/Poster presented having Title ***“Self-association of Organorhodium(III) Thiolato Complex to syn and anti isomers: Synthesis, Structure and Noncovalent Interactions”*** U. Das, in 37th **National Seminar** on Crystallography, organized by Dept. of physics Jadavpur University, on 6-8th February, 2008.
2. Paper/Poster presented having Title ***“IrCl₃-Assisted C–H and C–S Bond Scissions: Synthesis, Structure and Electrochemistry of Organosulfur Iridium(III) Compounds”*** U. Das, in Friends of Inorganic Chemistry, First Scientific Meeting, **National Seminar**, organized by Dept. of Chemistry, Jadavpur University, on 21st December, 2008.
3. Paper/Poster having Title ***“RuCl₂(PPh₃)₃-mediated C–S Bond Cleavage and Activation of molecular Oxygen by in situ Generated Ru(II) –thiolato Intermediate to Stable Ru(II)-Sulfinato Compound”*** U. Das, presented in CRSI (Kolkata Chapter) Symposium VIII on Advances in Chemical Research (**National Level**), organized by Dept. of Chemistry, Bengal Engineering and Science university, Shibpur, on 6th August, 2010.
4. Paper/Poster presented having Title ***“Platinum Metals mediated C–S bond cleavage and Activation of molecular Oxygen”*** U. Das, in the **International Symposium** on Frontiers in Inorganic chemistry (FIC-2010), organized by Dept. of Inorganic chemistry, Indian Association for the Cultivation of Association(IACS), on 11-13th December, 2010.
5. **Article** having Title ***“Indian Saffron Curcumin-The Magic Pigment”*** U. Das, published in ***“Quest- journal of the Faculty of Science”***, Sarsuna College, **2011, 1(1), 16-21**.
6. Paper/Poster presented having Title ***“RhCl₃-mediated C–S bond cleavage of coordinated aryl and alkyl aryl thioethers Spontaneous self- association of thiolato complex to syn – dimers with Rh₂S₂ core”*** U. Das, in a **National seminar** on Inorganic Chemistry-2011 and the Celebration of 150th Birth Anniversary of A.P.C Roy, organized by Dept. of Chemistry, Jadavpur University, on 08-09th July, 2011.
7. **Article** having Title ***“Exposure of toxic solvents & chemicals squander from Research Laboratories: Human Impact on the Environment & Creature Health in Kolkata & Surrounding”*** U. Das, in an **UGC Sponsored State Level seminar** on Geographical Appraisal of the city of joy’s Environmental well being, organized by Geography Sarsuna College, on 17-18th January, **2012**.
8. Paper/Poster presented having Title ***“ μ^2 -S Dimerization of Organoiridium(III) Thiolato Complex In Presence of Thiophilic Metals Through the Intermediacy of A Novel Hexanuclear Ir₂Ag₄ Species: Synthesis, Structure and Spectral Studies”*** U. Das, in an **International Conference** on Structural Chemistry of molecules and materials. [SCOMM- 2014], RSC, organized by Department of Chemistry, University of Calcutta, on 30th November, 1st-2nd December, **2014**.
9. Paper/Poster presented having Title ***“SynthesisPromising Organometallic Nanoparticle”*** U. Das, in an **UGC Sponsored National Level seminar** on ***“Nanoscience & Its Application”*** organized by Department of Chemistry, Fakir Chand College, University of Calcutta, 28th November, **2015**.
10. Book Chapter having Title ***“Synthesis of Orthometalated Organosulfur Compounds of Rh and Ir: a Promising Organometallic Nanoparticle”*** U. Das, published in ***“Nanoscience & Its Application”*** by Department of Chemistry, Fakir Chand College, University of Calcutta, **July, 2016, 43-69.**) ISBN: 978-93-5267-020-8.
11. Paper/Poster presented having Title ***“Synthesis of Orthometallated Organsulfur Compounds of Rh and Ir: Stabilisation of metal mediated Thiyl Radicals”*** U. Das, in an

International Conference on Emerging Technologies for Sustainable Development **ICETSD'19** organized by Govt. College of Engineering and Lather Technology, Kolkata, on 5th and 6th March, **2019**.

12. Paper/Poster presented having Title *“Interaction of d^{10} metal ion with potential organosulfur complexes of Platinum”* U. Das, in an **International Symposium on current trends in Chemistry (ISCTC 2020)** organized by Department of Chemistry, Diamond Harbour Women's University, WB, 10th January, 2020. [**Best Presentation Award**]
13. Paper/Poster presented having Title *“Organosulfur phosphine and potential catalyst for organic transformations.”* U. Das, in a **National Conference** on Recent development and future challenges in chemical science (**RDFCCS 2020**) organized by Department of Chemistry, Behala College, WB, 26th February, 2020.
14. Paper/Poster presented having Title *“SynthesisS-centered reactivity”* U. Das, in a **National Level seminar** on Modern Trends in Chemistry on sustainable Development organized by Department of Chemistry, Vijaygarh Jyotish Ray College, WB, 3rd March, 2020.
15. Paper/Poster presented having Title *“Bromination in Aromatic Nucleus: Greener Approach”* in an **International Conference** on Recent Trends in Green Chemistry (ICRTGC-2021) organized by *An Initiative of Akal University*, Talwandi Sabo, Bathinda, Punjab, India, in collaboration with the Indian Chemical Society, Kolkata 28th-30th September, 2021.
16. Paper/Poster presented having Title *“Chemical & Photochemical Bioactivity”* in an **International Conference** on Recent Advances on chemistry and chemical biology organized by Department of Chemistry and IQAC of Vijaygarh Jyotish Ray College, Kolkata, WB, 21st August, 2022.

Research Project

1. UGC Minor Research Project

Tenure: 22.03.2012 to 22.03.2014

Project Title: *“Chemistry of the Platinum Metals incorporating Organosulfur azo and Schiff Base Ligands: Synthesis, Structure and Exploration of Reactivity”*

Total Amount: Rs. 148000/

Funding Agency: UNIVERSITY GRANTS COMMISSION

Book Chapter

1. Chapter-1: *“Photochemical Reactions of Atmospheric Non-Green House Components: Impact on Environment and Climate Change”*

(Page: 1-19)

Book: An Introduction to Dynamics of Good Governance and Environment Management Policies

Year: 2021, ISBN: 978-81-95439-2-5

Publisher: Aequitas Victoria Foundation

2. Chapter-6: *“Indian Saffron Curcumin – The Magic Pigment: Synthesis Chemistry and Bioactivity”*

(Page: 53-59),

Book: Modern Research and trends in engineering and multidisciplinary studies

Year: 2021, ISBN: 9798782275655

Publisher: High Rise Books Publication

3. Chapter-37: *SARIN-THE CHEMICAL WEAPON: SYNTHESIS STRUCTURE AND BIOCHEMICAL ACTION*

(Page: 359-372)

Book: Research trends in multidisciplinary Subjects: Volume-3

Year: 2021, ISBN: 978-93-91479-01-5

Publisher: Red’ Shine Publication

4. Chapter-13: *FUNDAMENTALS OF CYCLOMETALLATION REACTIONS: A ROUTE TO SYNTHESIS OF ORTHOMETALATED COMPOUNDS OF PLATINUM GROUP METALS*

(Page: 78-87)

Book: Contemporary Issues in Multidisciplinary Subjects: Volume-3

Year: 2022, ISBN: 978-93-93239-58-7

Red’ Shine Publication