

Department of Chemistry

Name	Dr. Dipali Sadhukhan
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Designation and Current Position	Assistant Professor
Email	dipali.sadhukhan@utu.ac.in
Qualification	Ph.D. (Inorganic Chemistry)
Area of interest	Inorganic Chemistry, Coordination chemistry, Crystallography and Molecular magnetism
Teaching Experience	3 yrs
Current Position	Assistant Professor, Department of Chemistry, Uka Tarsadia University.
Achievements	<ol style="list-style-type: none"> 1. Received French International Mobility Grant (Bourses de mobilité doctorale du Programme Avenir Lyon Saint Etienne), Université de Lyon, May-October 2013. 2. Received UGC Fellowship in Science for Meritorious Students (Ph.D. scholarship), 2009-2013. 3. Received 'Young Scientist' award by the Indian Chemical Society, August 2009.
List of Publications	<p>17 articles in international scientific journals (Total citations: 172)</p> <p>17. <i>Induction of chirality from ligand to the supramolecular helical packing in Mo(VI)-Ln(III) heterobimetallic complexes: Synthesis, structure and photoluminescence properties</i>, D. Das, D. Deb, D. Sadhukhan, M. Bhattacharjee, <i>Polyhedron</i> 2016, 105, 222.</p> <p>16. <i>Hydrogen bond, π-π and CH-π interactions governing the Supramolecular Assembly in Some Hydrazone Ligands and Their Mn^{II} Complexes: Structural and Theoretical Interpretation</i>, D. Sadhukhan, M. Maiti, G. Pilet, A. Bauzá, A. Frontera, S. Mitra, <i>Eur. J. Inorg. Chem.</i> 2015, 1958.</p> <p>15. <i>Heterogeneous Catalytic Oxidation of Styrene by an Oxo Bridged Divanadium(V) Complex of an Acetohydrazide-Schiff Base</i>, D. Sadhukhan, M. Maiti, E. Zangrando, P. Soyeb, S. Mitra, A. Patel, <i>Polyhedron</i> 2014, 69, 1.</p> <p>14. <i>Synthesis, Structural Characterization, Theoretical Calculations and Catecholase Mimetic Activity of Manganese-Schiff Base Complexes</i>, M. Maiti, D. Sadhukhan, S. Thakurta, E. Zangrando, G. Pilet, A. Bauzá,</p>

- A. Frontera, B. Dede, S. Mitra, *Polyhedron* **2014**, 75, 40.
13. *Catalytic Efficacy of Copper(II)- and Cobalt(III)-Schiff Base Complexes in Alkene Epoxidation*, M. Maiti, **D. Sadhukhan**, S. Thakurta, E. Zangrando, G. Pilet, S. Signorella, S. Bellú, S. Mitra, *Bull. Chem. Soc. Jpn.* **2014**, 87, 724.
12. *Novel Mixed-Valence Cu Compounds Formed by Cu^{II} Dimers with Double Oximate Bridges: The Anionic Layer [Cu₂(SCN)₃]_{nⁿ⁻}*, P. Dhal, M. Nandy, **D. Sadhukhan**, E. Zangrando, G. Pilet, C. J. Gómez-García, S. Mitra, *Dalton Trans.* **2013**, **42**, 14545.
11. *Pseudohalide Controlled Assemblies of Copper-Schiff Base Complexes with Encapsulated Sodium Ion: Synthesis, Crystal Structure and Computational Studies*, M. Maiti, **D. Sadhukhan**, S. Thakurta, S. Sen, E. Zangrando, R. J. Butcher, R. C. Deka, S. Mitra, *Eur. J. Inorg. Chem.* **2013**, 527.
10. *Thermally Stable Luminescent Zinc-Schiff Base Complexes: A Thiocyanato Bridged 1D Coordination Polymer and a Supramolecular 1D Polymer*, M. Maiti, S. Thakurta, **D. Sadhukhan**, G. Pilet, G. M. Rosair, A. Nonat, L. J. Charbonnière, S. Mitra, *Polyhedron* **2013**, 65, 6.
9. *A Novel Mixed Valent Cu^{II}-Cu^I 2D Framework Made of a Hydrazone and μ -SCN Bridged Metallacyclic Loops Cross-linked by μ_3 -SCN Chains*, **D. Sadhukhan**, C. Rizzoli, E. Garribba, C. J. Gómez-García, A. Yahia-Ammar, L. J. Charbonnière, S. Mitra, *Dalton Trans.* **2012**, 41, 11565.
8. *Series of Dicyanamide-Interlaced Assembly of Zinc-Schiff-Base Complexes: Crystal Structure and Photophysical and Thermal Studies*, M. Maiti, **D. Sadhukhan**, S. Thakurta, S. Roy, G. Pilet, R. J. Butcher, A. Nonat, L. J. Charbonnière, S. Mitra, *Inorg. Chem.* **2012**, 51, 12176.
7. *Weak Interactions Modulating the Dimensionality in Supramolecular Architectures in Three New Nickel(II)-Hydrazone Complexes, Magnetostructural Correlation, and Catalytic Potential for Epoxidation of Alkenes Under Phase Transfer Conditions*, **D. Sadhukhan**, A. Ray, G. Pilet, C. Rizzoli, G. M. Rosair, C. J. Gómez-García, S. Signorella, S. Bellu, S. Mitra, *Inorg. Chem.* **2011**, 50, 8326.
6. *Cobalt(II), Manganese(IV) Mononuclear and Zinc(II) Symmetric Dinuclear Complexes of an Aliphatic Hydrazone Schiff Base Ligand with Diversity in Coordination*

	<p><i>Behaviors and Supramolecular Architectures: Syntheses, Structural Elucidations, and Spectroscopic Characterizations</i>, D. Sadhukhan, A. Ray, G. Pilet, G. M. Rosair, E. Garribba, A. Nonat, L. J. Charbonnière, S. Mitra, <i>Bull. Chem. Soc. Jpn.</i> 2011, <i>84</i>, 764.</p> <p>5. <i>Magnetic and Catalytic Properties of a New Copper(II)-Schiff Base 2D Coordination Polymer Formed by Connected Helical Chains</i>, D. Sadhukhan, A. Ray, R. J. Butcher, C. J. Gómez-García, B. Dede, S. Mitra, <i>Inorg. Chim. Acta</i> 2011, <i>376</i>, 245.</p> <p>4. <i>A Two-Dimensional Zinc(II) Schiff Base Coordination Polymer Formed by Six-Membered Metallacyclic Repeating Motif: Structural Aspects, Thermal and Photophysical Properties</i>, D. Sadhukhan, A. Ray, G. Rosair, L. Charbonnière, S. Mitra, <i>Bull. Chem. Soc. Jpn.</i> 2011, <i>84</i>, 211.</p> <p>3. <i>Effect of Ligand Substitution on DNA Binding Ability of Two New Square Planar Copper(II)-Schiff Base Complexes</i>, D. Sadhukhan, A. Ray, S. Das, C. Rizzoli, G. M. Rosair, S. Mitra, <i>J. Mol. Struct.</i> 2010, <i>975</i>, 265.</p> <p>2. <i>An Unprecedented Cu^{II}-Schiff Base Complex Existing as Two Different Units with Strong Antiferromagnetic Couplings</i>, A. Ray, D. Sadhukhan, G. M. Rosair, C. J. Gómez-García, S. Mitra, <i>Polyhedron</i> 2009, <i>28</i>, 3542.</p> <p>1. <i>Influence of Anion on the Coordination Mode of a Flexible Neutral Ligand in Zn(II) Complexes: From Discrete Zero-Dimensional to Infinite 1D Helical Chains, 2D Nanoporous Bilayer Networks, and 3D Interpenetrated Metal-Organic Frameworks</i>, R. Mondal, T. Basu, D. Sadhukhan, T. Chattopadhyay, M. K. Bhunia, <i>Crystal Growth & Design</i>, 2009, <i>9</i>, 1095.</p>
<p>Seminar/ Conference</p>	<p><u>Invited oral presentations:</u></p> <p>1. <i>Vast Applications of Schiff Bases in Coordination Complexes: from Covalent to Supramolecular Chemistry</i> Groupe de Crystallographie et Ingénierie Moléculaire, Laboratoire des Multimatériaux et Interfaces, Université Claude Bernard Lyon 1, 69622 Villeurbanne Cedex, France, July 10, 2013.</p> <p>Instituto de Ciencia Molecular, Parque Científico. Universidad de Valencia, Spain, October 2, 2013.</p> <p>2. <i>Luminescent Molecular Assemblies of Zinc-Schiff Base</i></p>

Complexes Bridged by Dicyanamide Co-ligand

Laboratoire d'Ingénierie Moléculaire Appliquée à l'Analyse, Université de Strasbourg, 67087 Strasbourg Cedex 2, France, July 22, 2013.

3. Magnetic and Catalytic Properties of a New Copper(II)-Schiff Base 2D Coordination Polymer Formed by Connected Helical Chains

Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today (2011) and Celebration of the International Year of Chemistry organized by Indian Chemical Society, Kolkata, India, August 2-3, 2011.

Poster presentation:

1. *Tetranuclear copper(II) complexes of chiral Schiff base ligands: enantioselective catalysts for AOKR of racemic secondary alcohols*

International Symposium on Modern Trends in Inorganic Chemistry organized by Department of Chemistry, Jadavpur University, Kolkata, India, December 3-5, 2015.

2. *One, Two and Three-dimensional Supramolecular Architectures in Three New Nickel(II)-Hydrazone Complexes: Structural Aspects and Magneto-structural Correlations*

International Symposium on Facets of Weak Interactions in Chemistry organized by Department of Chemistry, University of Calcutta, Kolkata, India, January 13-15, 2011.

3. *Effect of Ligand Substitution on DNA Binding Capacity of Two New Square Planar Copper(II) Monomers*

4th CRSI-RSC Symposium in Chemistry & 12th CRSI National Symposium in Chemistry held at Indian Institute of Chemical Technology, Hyderabad & National Institute of Pharmaceutical Education and Research (NIPER) Hyderabad, India, February 4-7, 2010.