



International Conference on
Modern Trends in Inorganic Chemistry 2024
 December 14 - 17, 2024
 Department of Chemistry, Indian Institute of Technology Kharagpur

Lectures

Name	Title	Lecture No	Venue
Anil J. Elias IIT Delhi	Catalysis: Past, present and future	POP 1	Dec 14 5:30 PM Netaji
G. Mugesh IISc Bangalore	Synthetic Nanozymes as Artificial Enzymes for Biomedical Applications	PL 1	Dec 14 3:50 PM Netaji
Peter Roesky Karlsruhe Institute of Technology	Lanthanide sandwich compounds	PL 2	Dec 14 4:30 PM Netaji
Samar Kumar Das University of Hyderabad	Polyoxometalate-based Materials for Sustainable Development	PL 3	Dec 15 9:30 AM V2
Murugavel Ramaswamy IIT Bombay	Harmonizing of Molecular and Nanomaterial Metal Phosphate Chemistries for Improved Energy Applications	PL 4	Dec 15 3:30 PM V2
Ashok Kumar Ganguli IISER Berhampur	Design of nanostructured Nanomaterials for energy conversion and biomedical Applications	PL 5	Dec 16 9:30 AM Kalidas
Partha Sarathi Mukherjee IISc Bangalore	Aqueous Molecular Vessels	PL 6	Dec 16 3:30 PM Kalidas
Pradyut Ghosh IACS Kolkata	Supramolecular Chemistry of Selective Anion Extraction	PL 7	Dec 17 9:30 AM Kalidas
Abhishek Dey IACS Kolkata	Aldehyde Decarbonylation by synthetic Iron porphyrins	KL 1	Dec 15 10:15 AM Ben Gupta
Michael Hayward University of Oxford	Low-temperature Topochemical Reactions as a Route to Novel Electronic Materials	KL 2	Dec 15 10:15 AM V2
R Boomi Shankar IISER Pune	Polyhedral Cages Supported by Tris(imido)phosphate anions: Host-Guest Chemistry and Chiral Separation	KL 3	Dec 15 10:15 AM V3

Sundargopal Ghosh IIT Madras	Chemistry of Boron-centered Ligands	KL 4	Dec 15 11:50 AM Ben Gupta
Kirill Kovnir Iowa State University	Hidden clathrates: Synthesis enabled exploration of complex pnictides	KL 5	Dec 15 11:50 AM V2
Prasenjit Ghosh IIT Bombay	Value Added Chemicals from Acetylene, Ethylene and Isocyanides by Single to Multi-Cycle Catalytic Processes Using Late Transition Metal Heteroatom Stabilized Singlet Carbene Complexes	KL 6	Dec 15 11:50 AM V3
A Srinivasan NISER Bhubaneswar	Cyclic Diphyrin and its B(III) Complex	KL 7	Dec 15 5:30 PM Ben Gupta
Hiroshi Kitagawa Kyoto University	High-Entropy Alloy and Oxide Nanoparticles Synthesized by Continuous Supercritical Solvothermal/Hydrothermal Flow Process	KL 8	Dec 15 5:30 PM V2
Geetharani IISc Bangalore	Activation of Diboron Reagent by Main Group Compounds and Metal Complexes	KL 9	Dec 15 5:30 PM V3
Sujit K. Ghosh IISER Pune	Heavy Metal-Based Toxic Oxo-Pollutants Sequestration by Advanced Functional Porous Materials for Safe Drinking Water	KL 10	Dec 16 10:45 AM Gargi
Dirk Volkmer Augsburg University	Functional K3,3 ("Kuratowski") Building Units in Coordination Materials	KL 11	Dec 16 10:45 AM Kalidas
Natesan Thirupathi University of Delhi	Construction of Indole N-Carboximidamides Through Cobalt (II) Catalyzed C-H Functionalization/Alkyne, 1,3-Diyne Annulation of Quinoyl Directed N-Arylguanidines and Their Reactivity	KL 12	Dec 16 10:45 AM Maitrayee
Eric Rivard University of Alberta	Main Group Element-Based Polymers and their Use in Advanced Optoelectronics	KL 13	Dec 16 11:50 AM Gargi
Juergen Nuss Max Planck Institute Stuttgart	Structurally active "electride" electrons in Mn_5Si_3 type-variant phosphides: Ca_5P_3 and $Ca_5P_3H_x$ ($0 < x < 1$)	KL 14	Dec 16 11:50 AM Kalidas
Takashi Uemura University of Tokyo	Metal-Organic Frameworks for Advanced Polymers	KL 15	Dec 16 11:50 AM Maitrayee
Tapan Kanti Paine IACS Kolkata	Dioxygen Activation by Aliphatic C-C Bond Cleaving Iron Oxygenases: Mechanistic Insights from Biomimetic Studies	KL 16	Dec 16 5:30 PM Gargi

Anirban Misra University of North Bengal	A Theoretical Account of the Coupling between Metal- and Ligand-centred Spins	KL 17	Dec 16 5:30 PM Kalidas
Ajay Venugopal IISER Thiruvananthapuram	Heavier Group 15 Cations and Dications	KL 18	Dec 16 5:30 PM Maitrayee
Subrata Kundu IISER Thiruvananthapuram	Phenol/Thiol–Nitrite Interactions at First-row Late Transition Metal Sites	IL 1	Dec 15 10:45 AM Ben Gupta
Emilie Gaudry University of Lorraine	Surfaces of TM-sp Intermetallic Compounds: Atomic and Electronic Structures for Advanced Catalysis	IL 2	Dec 15 10:45 AM V2
M Sankar IIT Roorkee	Synthesis of π -Extended Porphyrins and Their Applications in Sensing, NLO and Catalysis	IL 3	Dec 15 10:45 AM V3
Anukul Jana TIFR Hyderabad	Redox Mediated Synthesis of Main-Group Based Open-Shell Compounds	IL 4	Dec 15 12:20 PM Ben Gupta
Abhishake Mondal IISc Bangalore	Self-Assembled Metallosupramolecular Architectures for Designing Switchable Magnetic Materials	IL 5	Dec 15 12:20 PM V2
Sabuj Kundu IIT Kanpur	Selective Functionalization using Methanol	IL 6	Dec 15 12:20 PM V3
Prabu Sankar Ganesan IIT Hyderabad	Harnessing Carbenes and Chalcogenones to Enhance Emission in Copper and Gold Complexes	IL 7	Dec 15 12:40 PM Ben Gupta
Primož Koželj Jožef Stefan Institute	Magnetically soft CoFeNi-based high-entropy alloys – Towards potential applications	IL 8	Dec 15 12:40 PM V2
Debasis Koley IISER Kolkata	Cu(II) catalyzed amination reaction and the role of B(OH) ₃ byproduct: Mechanistic rationalization using computational approach	IL 9	Dec 15 12:40 PM V3
Sanjay Pratihar CSIR-CSMCRl Bhavnagar	Catalytic Hydrogenation and Methylation Using Methanol	IL 10	Dec 15 4:15 PM Ben Gupta
C. M. Nagaraja IIT Ropar	Strategic Design of Framework Materials for Chemical Fixation of Carbon Dioxide to Value-Added Chemicals	IL 11	Dec 15 4:15 PM V2

Arnab Rit IIT Madras	N-Heterocyclic Carbene (NHC) Supported Metal Complexes: Structure-Activity Correlation	IL 12	Dec 15 4:15 PM V3
Akhilesh Kumar Singh IIT Bhubaneswar	Molecular Probes for MRI and Fluorescence Imaging	IL 13	Dec 15 4:35 PM Ben Gupta
Debdas Ray Shiv Nadar University	Harnessing Triplet Energy via Endo-and-Exothermic Reverse Intersystem Crossing	IL 14	Dec 15 4:35 PM V2
Ekambaram Balaraman IISER Tirupati	Nickel-catalysed dehydrogenative coupling of alcohols with internal alkynes	IL 15	Dec 15 4:35 PM V3
Kartik Chandra Mondal IIT Madras	Stable Metal-Radical Complexes: Diverse Physical and Chemical Properties	IL 16	Dec 15 6:00 PM Ben Gupta
Subhadip Neogi CSIR-CSMCRI Bhavnagar	Task-specific Functionalization in Porous Framework Materials for Environmental Remediation and Sustainable Catalysis	IL 17	Dec 15 6:00 PM V2
Tarun Kanti Panda IIT Hyderabad	Amidophosphine Boranes as Unique Hydroboration Reagents for Several Functional Groups	IL 18	Dec 15 6:00 PM V3
Manindra Nath Bera University of Kalyani	Multifunctional Organic Scaffold-Based Metal Assemblies: New Therapeutic Opportunities	IL 19	Dec 16 11:15 AM Gargi
Bikash Kumar Jena CSIR- IMMT Bhubaneswar	Tailored Functional Materials for Green Hydrogen Generation	IL 20	Dec 16 11:15 AM Kalidas
Snehadrinarayan Khatua North-Eastern Hill University	Green, Yellow and Red Emitting d ⁶ and d ¹⁰ Metal Polypyridyl Complexes for Sensing and Bioimaging	IL 21	Dec 16 11:15 AM Maitrayee
Sakya S. Sen CSIR-NCL Pune	Tridentate Nacnac Ligands: Pendant Picolyl Powers Peculiar Chemistry	IL 22	Dec 16 12:20 PM Gargi
Debajyoti Ghoshal Jadavpur University	Excited-State Intramolecular Proton Transfer (ESIPT) in Metal Organic Frameworks and the Role of their Structural Flexibility	IL 23	Dec 16 12:20 PM Kalidas
Chandan Mukherjee IIT Guwahati	Contrast Agents Influenced Magnetic Resonance Images for Diagnosis	IL 24	Dec 16 12:20 PM Maitrayee

Viswanathan Baskar University of Hyderabad	Telluroxane Frameworks as Electrocatalysts for HER and reduction of NO_3^- to NH_3	IL 25	Dec 16 12:40 pm Gargi
Patha Pratim Jana IIT Kharagpur	Role of Positional Disorder and Soft Structural Framework for Lowering the Thermal Conductivity of the Sulvanite Type Compounds ACu_3TiQ_4 (A = Cu, Ag; Q = S, Se, Te)	IL 26	Dec 16 12:40 PM Kalidas
Subrato Bhattacharya Banaras Hindu University	iClick Reactions of Some Metal Complexes	IL 27	Dec 16 12:40 PM Maitrayee
Sumanta Kumar Padhi IIT(ISM) Dhanbad	Evaluating Cu(II)-Catalyzed Electrochemical CO_2 Reduction: Insights into Proton Reduction Interference	IL 28	Dec 16 4:15 PM Gargi
Madhab C. Das IIT Kharagpur	Coordinated Water Driven Proton Conduction in Crystalline Solids	IL 29	Dec 16 4:15 PM Kalidas
T. Selvaraju Bharathiar University	Smart Engineered Spinel Lattice Composites for Energy Conversion and Storage	IL 30	Dec 16 4:15 PM Maitrayee
R. Prabhakaran Bharathiar University	Bromoamination of α,β -unsaturated alkenes by palladium (II) metalalloycycles: Experimental and theoretical approach	IL 31	Dec 16 4:35 PM Gargi
Aleksandra Krajewska Max Planck Institute Stuttgart	Orbital molecules on a pyrochlore lattice	IL 32	Dec 16 4:35 PM Kalidas
R Natarajan CSIR-IICB Kolkata	Metal-“Organic cage” Frameworks for PAH Scavenging	IL 33	Dec 16 4:35 PM Maitrayee
Iti Gupta IIT Gandhinagar	Autophagy Activation in TNBC by Porphyrins Based Photosensitizers	IL 34	Dec 16 6:00 PM Gargi
Md Ehesan Ali INST Mohali	Enhancing Magnetic Anisotropy in Lanthanide and Transition Metal Single-Molecule Magnets	IL 35	Dec 16 6:00 PM Kalidas
Moumita Majumdar IISER Pune	Orbital engineering of heavier group 14 and 15 cationic compounds for catalytic functions	IL 36	Dec 16 6:00 PM Maitrayee
Manjit Kumar Bhattacharyya Cotton University	Synthetic Approach and the Role of Structure Guiding Non-covalent Synthons in Metal-organic Compounds: An Unexplored Zone of Inorganic Crystal Engineering	IL 37	Dec 17 10:45 AM Gargi

Stanislav Vrtnik Jožef Stefan Institute	Quantum Phase Transition in the Ce ₃ Al Intermetallic Compound	IL 38	Dec 17 10:45 AM Kalidas
Kumar S. K. Varadwaj Ravenshaw University	Morphology Variation within Polymorphs of MnO ₂ and its Effect on Electrocatalytic Activity	IL 39	Dec 17 10:45 AM Maitrayee
Parna Gupta IISER Kolkata	Strategic Designing of Luminescent Iridium (III) Complexes: Therapeutic potential at dark and under light	SL 1	Dec 15 11:05 AM Ben Gupta
Abhishek Banerjee VNIT Nagpur	Investigations into the Electrochemical Energy Storage Properties of Diphosphonate derivatives of Oxo-vanadates: Experiment and Theory	SL 2	Dec 15 11:05 AM V2
Barun Jana MNIT Jaipur	Transition Metal Complexes of Inverse Triazolyl-Pyridine Ligands: Synthesis, Structures and Applications in Various Catalytic Reactions.	SL 3	Dec 15 11:05 AM V3
Rabindra Kumar Behera NIT Rourkela	Iron Mobilization from Intact Ferritin Protein: Physiological and Pathophysiological Implications	SL 4	Dec 15 11:17 AM Ben Gupta
Arindam Indra IIT BHU	Ligand-Controlled Charge Transfer from Metal-Organic Framework to Cadmium Sulfide for Improved Photocatalytic Hydrogen Evolution	SL 5	Dec 15 11:17 AM V2
Nabakrushna Behera Sambalpur University	Uranyl Complexes and Their Interactions with Bovine Serum Albumin	SL 6	Dec 15 11:17 AM V3
Biswajit Saha CSIR-NEIST Jorhat	Ferrocene functionalized bimetallic photocatalyst for C-C and C-N bond formation: Role of second metal	SL 7	Dec 15 4:55 PM Ben Gupta
Abhijit Sen RIKEN	Development of Highly Active and Reusable Nickel Catalyst for Cross-Coupling Reactions	SL 8	Dec 15 4:55 PM V2
Tapas Ghatak VIT Vellore	A Waste Minimized Sustainable Catalysis Towards Click Chemistry and Transfer Hydrogenation Reactions: Using Transition Metal-N-Heterocyclic Imine Ligands	SL 9	Dec 15 4:55 PM V3
Mani Ganeshpandian SRM Institute of Science & Technology	Nanodelivery of metallodrugs: Enhancing the antiproliferative activity of organoruthenium complexes using polydiacetylene nanocarrier	SL 10	Dec 15 6:20 PM Ben Gupta
Manav Saxena Jain University	Ultrathin 2D Nickel/Cobalt Hydroxide Vertical Heterostructures: Unlocking High Energy Density for Flexible Symmetric Solid-State Micro-supercapacitor	SL 11	Dec 15 6:20 PM V2

Adinarayana Doddi IISER Berhampur	Main-Group and Organometallic Complexes Bearing Orthosilyl and NHO-Phosphines; Synthesis and their Use in Molecular Catalysis	SL 12	Dec 15 6:20 PM V3
Shivnath Mazumder IIT Jammu	AI-Driven Discovery of Asymmetric Pauson-Khand Reactions: A New Toolbox in a Synthetic Chemist's Treasure	SL 13	Dec 16 4:55 PM Gargi
Akhtar Hussain Handique Girls' College	Targeted Cancer Phototheranostics Using a Glucose-Conjugated Iron(III) Complex	SL 14	Dec 16 4:55 PM Kalidas
Asamanjoy Bhunia Jadavpur University	Molecularly Engineered MOF-Photocatalyst for CO Production	SL 15	Dec 16 4:55 PM Maitrayee
Ranjan Patra Amity University	Nature of π -hole Interactions in Group IX-XII Transition Metals with Halogens	SL 16	Dec 16 6:20 PM Gargi
Rajendiran Venugopal Central University of Tamil Nadu	Copper(II)-diimine complexes of 3-formylchromone-N ⁴ -phenyl thiosemicarbazone: 5,6-dmp co-ligand confers enhanced cytotoxicity with HeLa cervical cancer cells	SL 17	Dec 16 6:20 PM Kalidas
Hari Pada Nayek IIT(ISM) Dhanbad	Organogermanium(IV) Catalysts for Organic Reactions	SL 18	Dec 16 6:20 PM Maitrayee
Prosenjit Daw IISER Berhampur	Reductive N-N Bond Cleavage by Terpyridine-Based Ruthenium Catalyst	SL 19	Dec 17 11:05 AM Gargi
Manas Seal IIT Kharagpur	¹⁹ F Electron Nuclear Double Resonance (ENDOR) Spectroscopy: From Solution to Cell	SL 20	Dec 17 11:05 AM Kalidas
Anupa Avinash Kumbhar Savitribai Phule Pune University	Fe(III) and Cu(II) complexes of imidazophenanthroline derivative as fluorescent probes for nitroreductase	SL 21	Dec 17 11:05 AM Maitrayee
Mayukh Deb University of North Bengal	CS ₂ as a Sulfur Source: A Benzimidazole-based Cu(II) complex catalyzed Site-selective C-H Sulfenylation of Imidazo-[1,2-a]pyridines	SL 22	Dec 17 11:17 AM Gargi
Mrinmoyee Basu BITS Pilani	ZnIn _x S _y and CdIn _x S _y : Efficient photoanodes for Photoelectrochemical Water Splitting Reaction	SL 23	Dec 17 11:17 AM Kalidas
Prabha Vadivelu Central University of Tamil Nadu	Exploring Sulfoxidation and Epoxidation Reactions: The DFT insights into 13-TMC Bound Mn-Oxo, Peroxo and Hydroperoxo complexes.	SL 24	Dec 17 11:17 AM Maitrayee