

IITB - Kyoto Meet



Organized by
Chemistry Department
IIT Bombay



4th Jan 2025
VMCC, IIT Bombay

Time	Sustainability & Catalysis Session I Venue: Room no. 12
11:45 – 12:45	Lunch at VMCC First Floor Foyer
12:45 – 13:00	Inauguration
	Chairperson: Prof. G. Rajaraman & Prof. Chidambar Kulkarni
13:00 – 13:30	Computation and Data Science for Molecular Self-assembly and MOF Sensors Prof. Daniel Packwood, iCeMS, Kyoto University, Japan
13:30 – 14:00	Photostable Mn-catalysts for CO ₂ Conversion Prof. Arnab Dutta, IIT Bombay, India
14:00 – 14:15	Peripheral nucleic bases boost H ₂ production by synthetic molecular catalysts in acidic water Chandan Das, IIT Bombay, India
14:15 – 14:30	MOF-based Biomimetic Porous Liquids for Direct Air CO ₂ capture and conversion Rishabh Dubey, IIT Bombay, India
14:30 – 14:45	MOF-Driven Stabilization and Magnetic Property Optimization in Dyprosocenium and Gd-Fullerene Systems Garima, IIT Bombay, India
14:45 – 15:00	Pyrimidine Synthesis by Dehydrogenative coupling of Alcohols and Amidines Catalysed by Ruthenium Dipyrinato complexes Hemant Laxman Rawool, IIT Bombay, India
15:00 – 15:30	Iron Cluster Complexes Supported by Hydrides and Phosphines Prof. Yasuhiro Ohki ICR, Kyoto University, Japan
15:30 – 16:00	Tea Break
	Chairperson: Prof. Prasenjit Ghosh & Prof. Sanjog S. Nagarkar
16:00 – 16:30	Metal Phosphate Molecules and Materials Prof. R. Murugavel IIT Bombay, India
16:30 – 17:00	Precursor approach for the Development of Functional Organic Materials Prof. Hiroko Yamada ICR, Kyoto University, Japan
17:00 – 17:15	Modulating Magnetic Anisotropy in Six-Coordinated Cobalt(II) Complexes Dipanti Borah, IIT Bombay, India
17:15 – 17:30	Template Design for Distal C-H Functionalization of Azaarenes: Advancing Regioselectivity and Catalytic Efficiency Astam Mandal, IIT Bombay, India
17:30 – 17:45	Modulating the melting and glassy behavior of Coordination Polymers Himani, IIT Bombay, India
17:45 – 18:00	Design and synthesis of oligopyrrolic ligands and their coordination chemistry Pinky Chauhan, IIT Bombay, India

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Time	Materials & Spectroscopy Session II Venue: Room no. 13
11:45 –12:45	Lunch at VMCC First Floor Foyer
12:45 –13:00	Inauguration
	Chairperson: Prof. Anil Kumar & Prof. Srinivasan Ramakrishnan
13:00 –13:30	Phonon engineered nanocarbons for photothermal conversion: from fundamentals to applications Prof. C. Subramaniam, IIT Bombay, India
13:30 –14:00	Intracellular delivery by integrating plasmonic nanowire and photoresponsive materials Prof. Tomoko Inose, iCeMS, Kyoto University, Japan
14:00 –14:15	Osmolyte-induced Conformational Stabilization of a Hydrophobic Polymer Pooja Nanavare, IIT Bombay, India
14:15 –14:30	Structural Fine-tuning to Achieve Highly Fluorescent Organic and Water-soluble Thiazolo[5,4-d]thiazole Chromophores Akshay Suresh Thorat, IIT Bombay, India
14:30 –14:45	Electroluminescence Blinking in Hybrid Halide Perovskite Crystals Shruti Singh, IIT Bombay, India
14:45 –15:00	Interplay of polarity and aggregation-induced processes in the fluorescence of a donor-acceptor-donor fluorophore with terephthalate core Arkaprava Chowdhury, IIT Bombay, India
15:00 –15:30	Liquid Crystals for Protein Sensing Prof. Kamendra P. Sharma, IIT Bombay, India
15:30 –16:00	Tea Break
	Chairperson: Prof. Anindya Datta & Prof. Rajarshi Chakrabarti
16:00 –16:30	Introduction to 'Advanced Research Center for Beam Science' and 'Laboratory for Laser-Matter Interaction Science' Prof. Shigeki Tokita, ICR, Kyoto University, Japan
16:30 –17:00	Recent research topics in Nanospintronics Lab of ICR Prof. Teruo Ono, ICR, Kyoto University, Japan
17:00 –17:15	Development of a Compact Ansatz via Operator Commutativity Screening for the Determination of Molecular Energetics in the Quantum Computing Framework Dibyendu Mondal, IIT Bombay, India
17:15 –17:30	Light-Matter Interaction in the Relativistic Domain Sudipta Chakraborty, IIT Bombay, India
17:30 –17:45	Corrections to the independent electron surface hopping algorithm Chinmay Pradhan, IIT Bombay, India
17:45 –18:00	When does a proton move? Bijaya Pathak, IIT Bombay, India

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Time	Chemical Biology Session III Venue: Room no. 14
11:45 – 12:45	Lunch at VMCC First Floor Foyer
12:45 – 13:00	Inauguration
	Chairperson: Prof. Santosh J. Gharpure & Prof. Chandra M. R. Volla
13:00 – 13:30	Nucleic acid based small molecules for therapeutic gene modulation Prof. Ganesh Pandian Namasivayam, iCeMS, Kyoto University, Japan
13:30 – 14:00	Epigenetic Regulation of Neurological Disorders: Role of Lysine Acetyltransferases p300/CBP Prof. Tapas Kumar Kundu, JNCASR, Bangalore, India
14:00 – 14:15	A Synthetic Antibiotic Class Targets Bacteria with a Two-Pronged Approach Akash Dutta, IIT Bombay, India
14:15 – 14:30	From drug delivery to self-assembly: Understanding prevention and exploring the application of protein fibrils Anu Jain, IIT Bombay, India
14:30 – 14:45	Combating Antibiotic Resistance using DNA Aptamers Leena Badgular, IIT Bombay, India
14:45 – 15:00	Unravelling the effect of hypoxia-mediated cell cycle dynamics of breast cancer cell lines Shreyasi Modak, IIT Bombay, India
15:00 – 15:30	Deactivation of a growth-promoting plant hormone in rice Prof. Shinjiro Yamaguchi ICR, Kyoto University, Japan
15:30 – 16:00	Tea Break
	Chairperson: Prof. Krishna P. Kaliappan & Prof. Pradeepkumar P. I.
16:00 – 16:30	Development of peptide-macrolide conjugates as new age antibiotics: efforts towards curbing antibiotic resistance Prof. Ruchi Anand IIT Bombay, India
16:30 – 17:00	Covalent and Non-Covalent Small Molecules That Potentiate Antitumor Immunity Prof. Motonari Uesugi iCeMS, Kyoto University, Japan
17:00 – 17:15	Cystine based palindromic peptide as potential anion transporters and selective therapeutic agent against TNBCs Smriti Mukherjee, IIT Bombay, India
17:15 – 17:30	Monitoring the slow folding/unfolding of a protein, RfaH by ¹⁹ F NMR line shape analysis and stopped-flow kinetics R. Aishwarya Bhuvaneshwari, IIT Bombay, India
17:30 – 17:45	Decoding the role of mycobacterial lipid remodelling and membrane dynamics in antibiotic tolerance Anjana P Menon, IIT Bombay, India
17:45 – 18:00	Expanding the Scope of a One-Pot Double Displacement Protocol to Access the All Rare Sugar Containing Trisaccharide Unit of <i>Pseudomonas stutzeri</i> OX1 Amar Kumar Mishra, IIT Bombay, India