

Thank You

Organized by

Department of Chemistry,

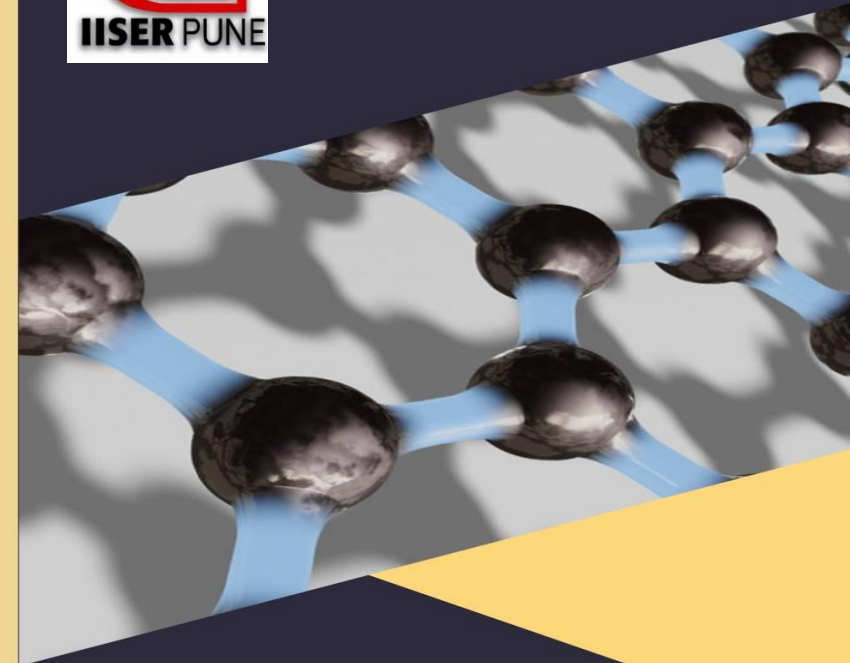
Indian Institute of Science Education
and Research, Pune - 411008



Organized by



Supported by



Emerging Materials 2023

Venue: C. V. Raman Auditorium,
Lecture Hall Complex

13-15 July 2023



Schedule Day 1: Thursday, 13 th July, 2023	
8:30 - 9:30	Registration
9:30 - 9:45	Inauguration/Welcome
Session 1 – Chair: Prof. S. Sivaram, IISER Pune	
9:45 - 10:15	Prof. Sunil S. Bhagwat, Director, IISER Pune <i>Inaugural Talk</i>
10:15 - 10:45	Prof. Subi Jacob George, JNCASR Bangalore <i>Unleashing the Architectural Marvels: Advancing the Structural Landscape of Supramolecular Polymers</i>
10:45 - 11:30	<i>Conference Photo + Tea/Coffee break</i>
Session 2 – Chair: Prof. M. Jayakannan, IISER Pune	
11:30 -12:00	Prof. P. S. Mukherjee, IISc Bangalore <i>Self-assembled Molecular Vessels</i>
12:00 -12:30	Prof. Srabanti Chaudhury, IISER Pune <i>Uncovering the Molecular Mechanism and Exploring the Role Heterogeneity in Cooperative Communication on Single Nanocatalysts</i>
12:30 -13:00	Prof. Biju Vasudevan, Hokkaido University, Japan <i>Exciton and Carrier Dynamics in Halide Perovskite Crystals</i>
13:00 -14:30	<i>Lunch</i>
Session 3 – Chair: Dr. Tisita Das, HRI Allahabad	
14:30 -15:00	Prof. Jong-Soo Lee, DGIST, Korea <i>High-efficient Colloidal InP Core-shell Quantum Dots: Synthesis, Surface Chemistry and Their Applications</i>
15:00 -15:30	Prof. Debansu Chaudhuri, IISER Kolkata <i>Solvent in Supramolecular Chemistry, Where the Solution to Many a Problem Lies</i>
15:30 -16:00	<i>Tea/Coffee break</i>
Session 4 – Chair: Prof. Prasenjit Ghosh, IISER Pune	
16:00 -16:30	Prof. Arun Venkatnathan, IISER Pune <i>Computational Investigation of Structure and Ion Transport in Alkali Metal Ion Battery Electrolytes</i>
16:30-17:00	Prof. Saptarshi Mukherjee, IISER Bhopal <i>Luminescent Metal Nanoclusters: Spectroscopy and Applications</i>
17:00 – 19:00	Poster Presentation
19:30 onwards	<i>Conference Dinner</i>

Schedule Day 2: Friday, 14 th July, 2023	
Session 5 – Chair: Prof. V. G. Anand, IISER Pune	
9:30 – 10:00	Prof. Hiroshi Kitagawa, Kyoto University, Japan <i>Platinum Group Metal-Based Solid-Solution Alloy Nanocrystals: Binary to High-Entropy Alloys</i>
10:00 – 10:30	Prof. Maksym V. Kovalenko, ETH Zurich, Switzerland <i>Engineering Perovskite Nanocrystals as Quantum Light Sources</i>
10:30 – 11:00	Prof. Dibyendu Das, IISER Kolkata <i>Adaptive Life Inspired Objects via Systems Chemistry</i>
11:00 – 11:30	<i>Tea/Coffee break</i>
Session 6 – Chair: Prof. Jeetender Chugh, IISER Pune	
11:30 -12:00	Prof. Jino George, IISER Mohali <i>Polaritronics with 2D Materials</i>
12:00 -12:30	Prof. Dae Sung Chung, POSTECH, Korea <i>Photochemically Inspired Molecular Engineering for Organic Electronics</i>
12:30 -13:00	Prof. R. S. Swathi, IISER Thiruvananthapuram <i>Graphynes as Substrates for Gas Adsorption: A Modeling Viewpoint Using Swarm Intelligence</i>
13:00 -14:30	<i>Lunch</i>
Session 7 – Chair: Prof. Pinaki Talukdar, IISER Pune	
14:30 -15:00	Prof. Deepa M, IIT Hyderabad <i>Low Cost Solution Processed Solar Cells and Beyond</i>
15:00 -15:30	Prof. P. K. Giri, IIT Guwahati <i>In-plane Anisotropy and High SERS Sensitivity of 2D Bilayer PdSe₂ and PdSe₂/Pd₂Se₃ Atomic Junctions</i>
15:30 -16:00	<i>Tea/Coffee break</i>
Session 8 – Chair: Prof. Amrita Hazra, IISER Pune	
16:00 -16:30	Prof. C. S. Gopinath, CSIR-NCL Pune <i>A Step in the Right Direction Towards Efficient Artificial Photosynthesis : Assembling and Integrating Photocatalysis Components into a Device</i>
16:30 – 17:00	Prof. P. Rajamalli, IISc Bengaluru <i>Thermally Activated Delayed Fluorescence Emitters for OLEDs</i>
17:00 – 19:00	Poster Presentation
19:30 onwards	<i>Dinner</i>

Schedule Day 3: Saturday, 15 th July, 2023	
Session 9 – Chair: Prof. Harinath Chakrapani, IISER Pune	
9:30 – 10:00	Prof. S. Sampath, IISc Bengaluru <i>Interfaces in Electrochemistry</i>
10:00 – 10:30	Prof. Maryna I. Bodnarchuk, EMPA, Switzerland <i>Advancements in Synthesis and Multicomponent Superlattices of Highly Luminescent Lead Halide Perovskite Nanocrystals</i>
10:30 – 11:00	Prof. K. George Thomas, IISER Thiruvananthapuram <i>Semiconductor Quantum Dots: From Trap-States to Single Photon Purity and Plasmon Resonance Coupling</i>
11:00 – 11:30	<i>Tea/Coffee break</i>
Session 10 – Chair: Prof. Debangsu Sil, IISER Pune	
11:30 -12:00	Prof. Sameer Sapra, IIT Delhi <i>Stabilizing Lead Halide Perovskite Nanocrystals Using Colloidal MoSe₂ Nanosheets</i>
12:00 -12:30	Prof. Tharamani C. N., IIT Ropar <i>Hydrogen Production: H₂O vs H₂S Electrolysis-Better for Tomorrow?</i>
12:30 -13:00	Prof. Naga Phani B Aetukuri, IISc Bengaluru <i>Modulation-Doping a Correlated Electron Insulator</i>
13:00 -14:30	<i>Lunch</i>
Session 11 – Chair: Prof. Partha Hazra, IISER Pune	
14:30 -15:00	Prof. Sayan Bagchi, CSIR-NCL Pune <i>Probing Surface Ligand Interactions in Thiocyanate-capped Quantum Dots Using 2D IR Spectroscopy</i>
15:00 -15:30	Prof. Sudip Chakraborty, HRI Allahabad <i>Implication of Rashba and Piezochromism in Perovskite Materials: A Computational Roadmap</i>
15:30 -16:00	<i>Tea/Coffee break</i>
Session 12 – Chair: Prof. Arnab Mukherjee, IISER Pune	
16:00 -16:30	Prof. Sudipta Basu, IIT Gandhinagar <i>Small Molecule Modular AIEgens for Illuminating Sub-Cellular Organelles</i>
16:30-17:00	Prof. Kartick Tarafder, NIT Karnataka <i>Study of Materials for Next-generation Thin-film Based Solar Cells: Shortcomings and Possible Routes for Improvement</i>
17:00 – 17:30	Prof. Nirmalya Ballav, IISER Pune <i>Facing the Interface: What Happens When Two Electrically Insulating Metal-Organic Materials Meet?</i>
17:30 – 18:00	<i>Concluding Session</i>