



Scheme for Promotion of Academic and Research Collaboration

INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS ISAM 2026



MARCH 6-7, 2026

Outreach Auditorium,
Indian Institute of Technology Kanpur, Kanpur,
Uttar Pradesh, India - 208016

**ORGANIZED BY DEPARTMENT OF CHEMISTRY AND
SUSTAINABLE ENERGY ENGINEERING**

DAY 1 - 6TH MARCH
Friday, Session I-IV, 9h30 - 18h30

International Symposium on Advanced Materials - 2026

Session	Time	Session Description
	08h30 - 09h00	Registration
	09h10 - 09h30	Inauguration
Session I	Session Chair: Prof. R. Gurunath, CHM, IIT Kanpur	
	09h30 - 10h00	Lecture 1 - Prof. Sebastian C. Peter, JNCASR, Bengaluru Title: Deciphering C-C Coupling in CO₂ Reduction: Advanced Nanomaterial Design Strategies
	10h00 - 10h30	Lecture 2 - Prof. Uttam Manna, IIT Guwahati Title: Design of Interfaces for Functional Liquid Wettability
	10h30 - 11h00	Lecture 3 - Prof. Tanmoy Maiti, IIT Kanpur Title: High Performance Thermoelectric Nanocomposites with 2D Graphene and MXene
	11h00 - 11h30	Tea Break
Session II	Session Chair: Dr. Nagaraju Barsu, NCL Pune	
	11h30 - 12h00	Lecture 4 - Dr. Jagabandhu Kole, JSW, Mumbai Title: Advance Materials and Means of CCUS in Building Materials Sector
	12h00 - 12h30	Lecture 5 - Prof. Samir Chikkali, NCL Pune Title: Waste Plastic Depolymerization and Upcycling
	12h30 - 13h00	Lecture 6 - Prof. Venkata Krishnan, IIT Mandi Title: Non-Noble Metal based Sustainable Heterogeneous Catalysts for Chemical Recycling and Upcycling of Plastic Waste
	13h00 - 14h15	Lunch

Session III	Session Chair: Prof. Santosh Misra, BSBE, IIT Kanpur	
	14h15 - 14h45	Lecture 7 - Prof. Sujit Ghosh, IISER Pune Title: Critical Minerals Extraction by Pore-engineered MOFs+ for A Sustainable Future
	14h45 - 15h15	Lecture 8 - Prof. Pradip Pachfule, SN BOSE Institute Title: Harnessing Sunlight for Photocatalytic Water Splitting
	15h15 - 15h45	Lecture 9 - Prof. Peter Budd, The University of Manchester Title: Polymers of Intrinsic Microporosity (PIMs) and their Applications
	15h45 - 16h45	Tea Break and Poster Session
Session IV	Session Chair: Prof. Anand Singh, CHM, IIT Kanpur	
	16h45 - 17h15	Lecture 10 - Prof. R. Kothandaraman, IIT Madras Title: When Mn Helps - and When It Hurts: Covalency Enhancement vs Antisite Defects in Ni-Rich Layered Cathodes
	17h15 - 17h45	Lecture 11 - Dr. Mohana Sundararam, IOCL Title: Advanced Materials for Energy Storage Applications - Indian/Oil Perspective
	17h45 - 18h15	Lecture 12 - Dr. Anantharaj Sengeni, IIT Kanpur Title: Mechanistic Origins of Enhanced OER Activity in NiFe Metal Organic Frameworks
	19h30	Dinner
DAY 2 - 7TH MARCH		Saturday, Session V-VIII, 9h00 - 18h30
Session V	Session Chair: Prof. Raju Gupta, CHE, IIT Kanpur	
	09h00 - 9h30	Lecture 13 - Prof. Ashish Garg, IIT Kanpur Title: Performance and Stability of Perovskite Solar Cells
	9h30 - 10h00	Lecture 14 - Dr. Koustuv Ray, IIT Kharagpur Title: In Search of Cost-effective Catalysts for the Chemical Value Chain: Examples on CO₂ Conversion, DRM and PDH
	10h00 - 10h30	Lecture 15 - Prof. Santhosh B. Sukumaran, NCL Pune Title: Molecular Architecture of Curved Nanographenes and Graphene Nanoribbons
	10h30 - 11h00	Lecture 16 - Dr. Nilesh Badwe, IIT Kanpur Title: Next Generation Materials in Semiconductor Packaging
	11h00 - 11h30	Tea Break

Session VI	Session Chair: Prof. Pratik Sen, CHM, IIT Kanpur	
	11h30 - 12h00	Lecture 17 - Prof. Santosh Misra, IIT Kanpur Title: Nanocarbon-Enforced Polymer Composites Generate Triggerable Biomaterials for Advanced Therapeutics (TrigBioD-Therapeutics)
	12h00 - 12h30	Lecture 18 - Prof. Nirmalya Ballav, IISER Pune Title: Facing the Interface: Hetero-Structured Thin Films of Coordination Polymers
	12h30 - 13h00	Lecture 19 - Dr. Pratyush Sinha, LOHUM Title: Scaling Advanced Materials from Lab to Factory
	13h00 - 14h15	Lunch
Session VII	Session Chair: Prof. M. L. N. Rao, CHM, IIT Kanpur	
	14h15 - 14h45	Lecture 21 - Prof. K. Muralidharan, University of Hyderabad Title: Main Group Materials for Health, Energy, Environment, and Defense (HEED) Applications
	14h45 - 15h15	Lecture 20 - Prof. Radha Boya, The University of Manchester Title: Monolayer Water and Ionic Memory in Angstrom-Scale Channels made from 2D materials
	15h15 - 16h30	Flash Presentation Chairs: Profs. Apparao Draksharapu & Soumyabrata Roy
	16h30 - 17h00	Tea Break
Session VIII	Session Chair: Dr. Deepti Kalsi, IIT Bombay	
	17h00 - 17h30	Lecture 22 - Dr. Suresh Mothika, IIT Kanpur Title: Functional Porous Organic Polymers (POPs) for Clean Fuel Production and Uranium Extraction
	17h30 - 18h00	Lecture 23 - Prof. Ashok Keerthi, The University of Manchester Title: Heteroatom-rich Framework Materials: Why Are They Exciting?
	18h00 - 18h30	Lecture 24 - Dr. Abhishek Aggarwal, IIT Indore Title: Designing High-Performance Energy Storage Systems for Decarbonization
	18h30 - 18h45	Valedictory Session
	19h30	Dinner

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