

Research Scholars'

Day 2026

Department of Chemistry IIT Kanpur

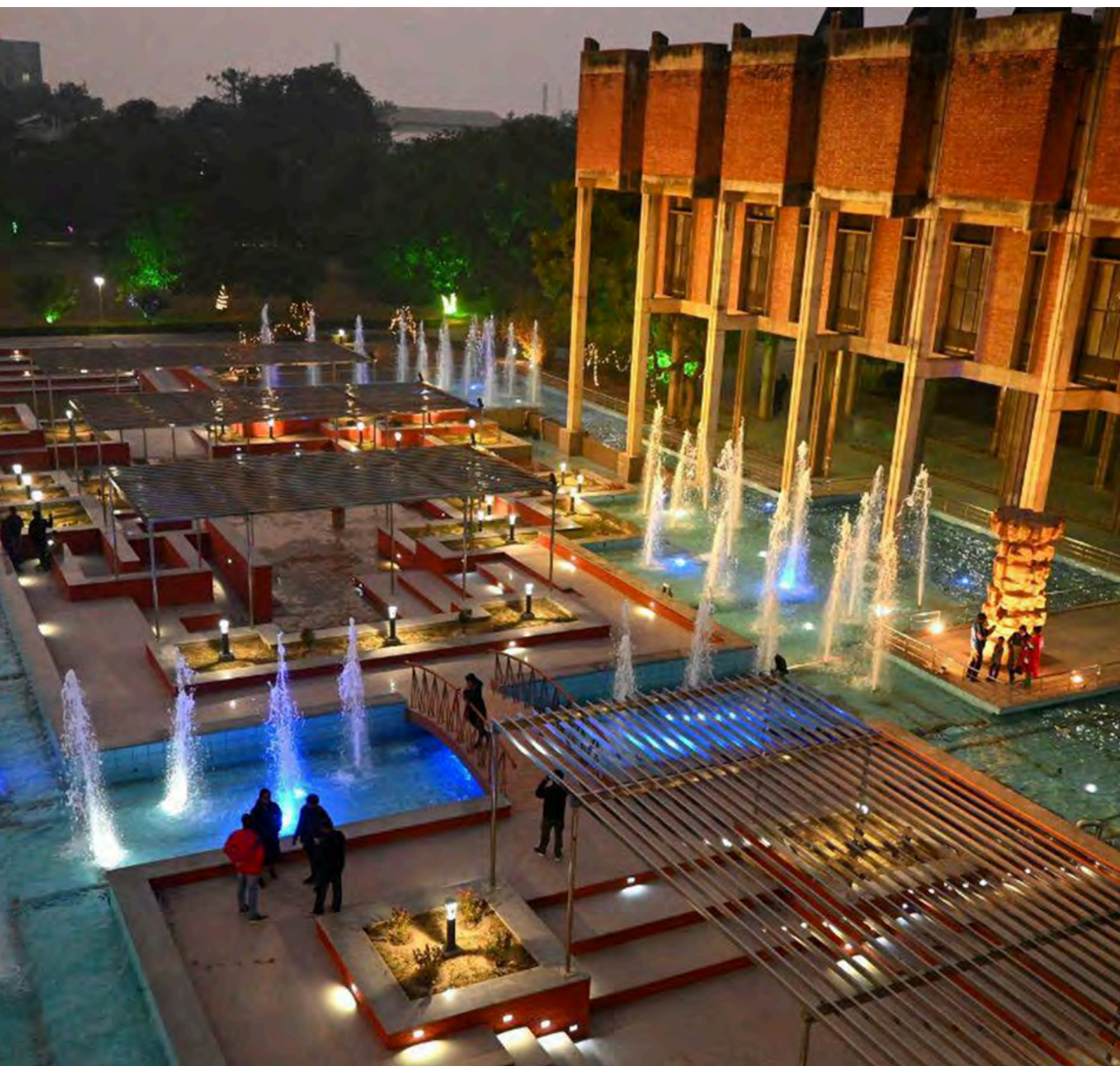
 Outreach Auditorium



WILEY



25th April 2026



Inaugural Address**9:15-9:30****Session 1****9:30-10:30**

Session Chair: Ayusie Goyal

Time	Speaker	Title of the Talk (12+3 minutes)
9:30-9:45	Priyanka	Multifunctional Carbon Dot Nanosystems for Energy Transfer, Membrane Interactions, and Viral Detection
9:45-10:00	Divya Lakshmi H	Elucidating the formation and reactivity of a formal Ni(IV) and Ni(III) transients
10:00-10:15	Sagar Eknath Nehe	Design and synthesis of fused energetic materials
10:15-10:30	Rajwinder Kaur	Mechanistic Insights into Photoinduced Long-Range Charge Transport in Oligomeric Molecular Junctions

Tea break and Photo Session**10:30-10:45****Poster Session 1: P1-P27****10:45-11:45****Session 2****11:45-12:30**

Session Chair: Pushpa Devi

Time	Speaker	Title of the Talk (12+3 minutes)
11:45-12:00	Kirti	Photo catalytic, Selective Defluorinative Functionalization with Trifluoroarenes
12:00-12:15	Shuvadip Ghosh	Quantum Thermal Logic Gates
12:15-12:30	Sayari Dewan	Self-Assembling Imidazolium Nanoaggregates Trigger a Unique Dynamine-Dependent Cell Death via Cytoplasmic Vacuolization and Mitochondrial Dysfunction in Human Lung Adenocarcinoma

Dr. Debarati Bandyopadhyay (Deputy Editor, Wiley)		Preparing, Publishing, and Sustaining Integrity in the Scholarly World	12:30-13:00
Lunch			13:00-14:30
Session 3			14:30-15:15
Session Chair: Vatsalya Gupta			
Time	Speaker	Title of the Talk (12+3 minutes)	
14:30-14:45	Mohammed Isfahur Rahman	Accumulation of new pterin pathway metabolite prevents ferroptosis in neuronal phenotypes	
14:45-15:00	Soumyadeep De	Redefining CsPbCl ₃ Nanocrystals: Bright, Water-Stable Perovskites with Wide Color Gamut	
15:00-15:15	Farhana Afrin	Pd-Catalysed [3+2] cycloaddition of Spirovinylcyclopropyl Oxindoles with coumarins: A Synthetic Route to spirochromene-1,3'-indoline scaffolds	
Poster Session 2 : P28-P49			15:15-16:10
High Tea			16:10-16:30
Colloquium			16:30-17:20
Prof. Dattatraya H. Dethe		Strategic Design and New Reactivity in the Synthesis of Complex Natural Products	
Prize distribution and Vote of Thanks			17:20-17:45

	Name	Title of Poster	Discipline
P1	Amrendra Singh	Dual Electron Complementation Strategy to Access Fe ⁺⁴ Sites for Efficient Oxygen Evolution Reaction	IC
P2	Ankit	Light Activated Rhenium complex Inducing Ferroptosis and Immunogenic Cell Death in Brest Cancer	IC
P3	Abhik Ghoshal	From Electronic Communication to Memory: Sequential Resistive Switching in Binuclear Ruthenium Polypyridyls	IC
P4	Srijita Patra	Effect of electronic variation in Ru(II)-scaffolds on the photorelease of biologically active 5-cyanouracil	IC
P5	Sundharrajan J	Impact of Hydroxy Pyridine Functionalized Imidazolium Zincates [(HIMepyOH)(ZnBr ₄)] as a Bifunctional Hydrogen Bond Donor Catalyst for the Preparation of Cyclic Organic Carbonates at Ambient Conditions.	IC
P6	Anjali Kumari	Effects of ancillary ligands on the properties of 8-hydroxyquinoline bismuth complexes	IC
P7	Arya Roychowdhury	Singlet vs Triplet diradicals: Control of Spin Coupling via Conformational Change	IC
P8	Seema Devendra Thakur	Lewis-Acid-Enabled Dual-Site Synergy in Co/Zn Single-Atom Catalysts for Selective N-O Bond Activation of Amides & TH of epoxides	IC
P9	Koushik Basak	Unmasking the Spectator: The Role of Ancillary Ligands in Bidentate Ligand Photorelease and Photocytotoxicity	IC
P10	Khushboo Gupta	Enantioselective Tandem Michael Addition and Cyclization Reaction Enabled by Dual Organo/Copper Catalysis: Access to Functionalized 4H-Pyrans	OC
P11	Kamal Kishore	High-Throughput Synthesis and Screening Identifies New Covalent Small-Molecule Ferroptosis Inducers in Cancer Cells	OC
P12	Souvik Das	Upcycling of Waste PET Via Recyclable Crosslinked Polyimine Network	OC
P13	Sonali Kukreja	A thermally resilient high performing metal free primary explosive	OC
P14	Laraib Akhtar	Interplay of Superoxide Anion and Singlet oxygen in Photocatalytic H ₂ O ₂ generation	OC

		using light harvesting DA Conjugated Microporous Polymer	
P15	Md Mustaque Ansari	Total Synthesis of Limonoids Enabled by Sterically Assisted Boron Chain-Walking	OC
P16	Debojyoti Ghosal	Fe-Catalyzed DROC of Activated Azetidines with Nitrile: Synthesis of Substituted Tetrahydropyrimidine	OC
P17	Shrija Ghosh	Structural Evolution of Eumelanin Synthesized via Recombinant Human Tyrosinase	OC
P18	Aarti Mehra	Photochemical, Pd-catalyzed HAT-mediated alkylation of propargyl anilines	OC
P19	Shikha Singh	Dual Photocatalytic Applications of Imidazole-Linked Porous Organic Polymers (pops): Visible-Light-Driven C–X Borylation and Hydroxylation of Aryl Boronic Acids	OC
P20	Shubham Singh	Steroidal Natural Products from Ganoderma lucidum: Isolation, Structural Revision, and Semisynthesis	OC
P21	Pooja Kumari	Fragmentation dynamics of Benzene-water clusters in superfluid helium nanodroplets	PC
P22	Kunika Lodha	Visualizing the Mobility of Influenza A Virus on Host-Mimetic Surfaces	PC
P23	Ishwar Gupta	Reconstructing Surfaces in CsPbCl ₃ Nanocrystals for Brighter Emission and Controlled Charge/Energy Transfer.	PC
P24	Sounak Bandyopadhyay	Quantum Fluctuation Relations and Linear Response	PC
P25	Akshay Kaushik	Spectral diffusion in glycerol–water mixtures from theoretical two dimensional infrared spectroscopy: varying effects of concentration for different solvation environments	PC
P26	Rohit Kumar Maurya	Molecular Structure Dependence of Thermodiffusion in Binary Mixtures Probed by Thermal Lens Spectroscopy	PC
P27	Sandipan Maitra	A First-Principles Study of Silicene on Ag(111) Surface	PC

	Name	Title of Poster	Discipline
P28	Rohit singh	Deciphering Active Sites in Al-Incorporated NiFe Layered Double Hydroxides for Electrocatalytic Urea Oxidation Reaction	IC
P29	Tooba Ghazal	Deoxygenative Amination of Carboxylic Acids via Silane-mediated Cp*-Cobalt Catalysis	IC
P30	Aditya Kamal	Tetrazine-Driven Push–Pull Modulation of Viologen Redox States for Tunable Electrochromic Device	IC
P31	Pushpa Devi	Diphenylquinoxaline-Derived Cyclometalated Iridium(III) complexes triggering ROS-mediated mitochondrial damage in Glioblastoma cells	IC
P32	Pracheta	Galvanic displacement strategy for fabricating Pt-decorated Cu electrodes towards efficient HER	IC
P33	Anjali Rajora	Zwitterionic 2D-Lanthanide Coordination Polymers [(M{DDI}{p-BDC}{H ₂ O}{solvent})(MeOH) ₃] _n as catalysts for the Sequestration of CO ₂ .	IC
P34	Somya Mishra	In Situ Cp*-Functionalized Tethered N-heterocyclic Thione Co(III) Complex: Synthesis & Characterization	IC
P35	Santanu Manna	Cooperativity in Synthetic Diheme Enzyme: A Spectroscopic and Mechanistic Investigation	IC
P36	Manoj Pradhan	Cyclometalated Ru(II)-Catalyzed Chemodivergent Functionalization of β-Naphthols and Indoles via Methanol Activation	IC
P37	Sourabh Singh	Closed loop recycling of biobased polycondensates: regulating properties with arylene ethers defects	OC
P38	J Manojkumar	Catenated Nitrogen-Rich Molecules for Advanced Explosives and Gas-Generator Applications	OC
P39	Anjul Vilas	Metal free Photoinduced One Pot Synthesis of Polysubstituted Pyrroles	OC
P40	Chirantan Singha	Total Synthesis of Agallolide B via MHAT-mediated Reductive Aldol Condensation	OC

IC: Inorganic Chemistry OC: Organic Chemistry PC: Physical Chemistry

P41	Arati Maurya	Reconstitution of DMFase Enzyme α - and β -Subunits: Implications for Enzyme Assembly and Substrate Specificity	OC
P42	Monika	Blatter-radical polymer thin films: precise nanometer thickness and study of redox-optical properties	OC
P43	Akanksha Deshpande	Asymmetric Organocatalytic (4+4) annulation between 5-alkenyl thiazolones and ynones: access to thiazole-fused-eight-membered cyclic ethers	OC
P44	Athira P	Solvent-Controlled Divergent Catalysis Towards the Synthesis of Fluvastatin Analogs	OC
P45	Gyanita zon Kushwaha	From Nanocubes to Nanorods: Morphology and Pb-S Anchoring Enable Stable and Efficient Perovskite Photocatalysis in Aqueous Media	PC
P46	Yashika	Mass selective Infrared Spectroscopy of $\text{CH}_3\text{CN-HCOOH}$ complex in helium nanodroplets	PC
P47	Himanshu Kumar Vishwakarma	Influences of Hydrophobic Groups on Intermolecular Interactions and Terahertz Response of Urea and Its Derivatives in Water	PC
P48	Soumyadip Saha	Gallium Nitride (GaN) Epitaxial Growth on m-plane (1-100)	PC
P49	Diksha	Large Area Film of Highly Crystalline, Cleavable, and Transferable SemiConducting 2D-Imine Covalent Organic Framework on Dielectric Glass Substrate	PC