Poster Presentations: Day 1, 12-01-2026

Venue: SSL Foyer and SAMat Building, JNCASR

Chair of the Poster Session: Dr. Ashish Singh (Guru Ghasidas Central University) & Dr. Prasenjit Das (IIT Ropar)

P1	Aarya Sharma	Scalable And Ultrafast Continuous Flow Synthesis of Uio-66 (Ce) MOF for Efficient Conversion of CO_2 Conversion to Cyclic Carbonates
P2	Aayush Anand	Engineering Multifunctional Mesoporous Polymer networks via Triazolinedione Click Chemistry for Environmental Remediation
P3	Abhijeeet V. Kamble	1,1,6,6-Tetracyano hexatriene Linked Conjugated Microporous Polymer for High Photocatalytic Hydrogen Evolution
P4	Abhijith Das	Synthesis of novel DETA functionalized aluminium fumarate for the effective remediation of tetracycline form aqueous medium
P5	Abhilekha Borah	Visible-Light-Responsive g-C_3N_4/TiO_2 Heterojunctions Derived from MIL-125(Ti) for Efficient Hydrogen Evolution and Glycerol Oxidation
P6	Abul Hasnat	Surface Functionality in NanoCOFs Drives Enhanced Cellular Uptake in Lung Cancer Cells
P7	Adithyan P	Free-Standing Amphiphilic Organic Membrane toward Ultrafast and Efficient Demulsification
P8	Tanmay Rom	Nano perovskite oxide-MOF Heterostructures for Light-Enhanced Piezocatalytic Green Hydrogen Production
P9	Ajay Ugale	Porosity-Driven Electrochemical Divergence in Structurally Isomeric 2D Metal-Organic Frameworks for Lithium-Ion Storage and release
P10	Akhil Chandran P	Design and development of redox active novel Metal-Organic Frameworks for efficient photocatalytic CO_2 reduction.

P11	Altaf Husain	Tuning Dimensionality and Linkage in Metal–Organic Frameworks for Enhanced Electrochemical Energy Storage
P12	Amal R S	Metal-Organic Framework Structure Generation Using Diffusion Models
P13	Amit Kumar	Metal-free Heptazine-based porous organic polymer for photocatalytic CO_2 reduction in water under non-sacrificial ambient conditions
P14	Amit Nagar	Design of Donor-Acceptor Covalent Organic Framework for Photocatalytic Hydrogen Production
P15	Amit Thapliyal	Room-Temperature Synthesis and Structural Characterization of Cyclam-Based Cd(II) and Zn(II) Metal–Organic Frameworks
P16	Amrita Hazra	Fabricating Tetraphenylethylene-Based Ionic Porous Organic Polymers for Efficient Sequestration of Toxic Iodine and Oxoanions in Multiple Media
P17	Anagha H. Nair	Pioneering a Low-Cost Fluorescent Sensing Platform: A Stable ZIF-8 Framework for the Non-Invasive Detection of Urinary Biomarker in Cancer Diagnostics
P18	Anam Afaq	Design and Synthesis of Zn-based Metal Organic Frameworks (MOF) for Adsorptive Removal of Pharmaceutical Contaminants
P19	Sumanta Basak	Functionalized Metal–organic Framework Thin Films for Stable and Efficient Water Oxidation under Near-neutral Conditions
P20	Anupam Maiti	Chemically robust Zn-MOF for high-performance supercapacitor and H_2 storage
P21	Apu Saha	Constructing Charge-Assisted Multicomponent Amidinium iHOFs for Ultrahigh Superprotonic Conductivity
P22	Arjun Warrier	Disorder Driven Triphenylamine based Monolithic Covalent Organic Framework for the Efficient Removal of Toxic Oxo-anions from Water
P23	Arkaprabha Giri	Amine-grafted Covalent Organic Frameworks for Humidity-Boosted Direct Air Capture under Ambient and Sub-ambient Temperatures
P24	Arnab Sadhukhan	Covalent Organic Frameworks via in-situ monomer release for humid CO_2 uptake

P25	Arshminder Kaur Dhillon	Plasma-assisted defects in iron-based metal-organic framework for energy-efficient photocatalytic water sterilization
P26	Arun Kumar Manna	Light-activated nanopores in gas-permselective membrane
P27	Ashish Kumar Kripashanakar Yadav	Reconstructed Bi-MOF for Electrochemical CO_2 Reduction to Formate
P28	Ashish Kumar Maharana	Partially Graphitic Covalent Triazine Frameworks as Multifunctional Metal-Free Platforms for Energy Storage and Electrocatalysis
P29	Ashna Jose	Data-Driven Design of Electroactive Metal-Organic Frameworks
P30	Ashok Yacham	Understanding selective CO_2 capture, distribution and diffusion of gas in ZIF-90
P31	Atanu Pandit	Antagonistic functionality decked redox-reliant MOF enabled electrocatalytic water splitting and mild-condition one-pot synthesis of bioactive 4H-pyrans
P32	Athira K K	Surface structure-driven activity and selectivity in ZIF-67 for CO_2 cycloaddition with propylene oxide
P33	Atul	MOF based adsorbents for CO_2 Mitigation and Dye removal from wastewater
P34	Augastus Camellus R B	In Situ Growth of Triazine-Based β-Ketoenamine COF on Carbon Nanotubes for Durable Sodium-Ion Battery Anodes
P35	Avanti Chakraborthy	Structural modulation in covalent organic frameworks for photocatalytic hydrogen peroxide generation
P36	Avishek Gangopadhyay	Molecular Precision in Porous Solids: Hydrogen-Bonded Organic Frameworks for Selective Transport and Separation
P37	Ayan Chowdhury	Tunable Photocatalytic CO_2 Reduction by Covalent Grafting of Cerium Oxide Nanorods in a Covalent Organic Framework
P38	Babita Poonia	Facile Friedel-Crafts Alkylation and Biginelli Multicomponent Reactions using a Metal-Organic Framework with Open Metal Site
P39	Bhagyasree T M	Donor–acceptor-based two-dimensional polymer as a supercapacitor electrode with long cycling stability
P40	Bidhan Kumbhakar	A Dimolybdenum Paddlewheel Embedded Covalent

		Organic Framework for Photocatalytic Hydrogen Peroxide Generation
P41	Bidyadhar Mahato	Amine-Imine Tautomeric Excited-State Intramolecular Proton Transfer in Metal Organic Frameworks: Alcohol and Anion Recognition
P42	Bikash Mishra	Homologous Heteropolyaromatic Covalent Organic Frameworks for Metal-free Visible-Light Photocatalytic Dehydrogenative Transformations
P43	Bikram Pramanik	Catalytic Efficacy of a 2D Chemically Robust MOF for the Synthesis of Bioactive Diindolylmethane (DIM)-based Drug Molecules
P44	Bitan Sardar	Metal-organic framework immobilized NNP-Fe pincer complex catalyzed selective monoborylation of methane
P45	Chaitanya Yerragudi	Non-Faradaic Capacitive Sensing of Halides at Amine-Rich Electroactive Hybrid Interface
P46	Chhaya	An efficient catalyst NH_2-MIL-101(Fe)@AC for Conversion of CO_2 into cyclic carbonates under Ambient Conditions
P47	Chhaya Thadhani	Cobalt Catalyzed Selective Monoborylation of Methane
P48	Chithra K R	Plasma modified ZIF-8 incorporated PVDF membrane for efficient removal of antibiotics from water via crossflow filtration
P49	Debasis Pal	Post Synthetic Transmetallation and Water Induced Structural Transformation: The key Mediators in Proton Conduction by Metal-Organic Frameworks
P50	Debobroto Sensharma	OligoMOFs: Tuning MOF Structure and Properties Using Inter-Ligand Linkages
P51	Deepali Sharma	Engineering Zr-MOFs for a Greener Tomorrow: Catalytic CO_2 Conversion Made Easy
P52	Dipanjan Majumder	Nano-Springe Enriched Hierarchical Porous MOP/COF Hybrid Aerogel: Efficient Recovery of Gold from Electronic Waste
P53	Dipayan Ghosh	Enhancing Photocatalytic Activity of Porous Organic Frameworks via Facile Post-Synthetic Modification for Ultrafast Uranium Extraction
P54	Divya	Electron rich triazine based covalent organic framework as aqueous electrolyte symmetric supercapacitor

P55	Sagarmani Rasaily	Microwave-Assisted Synthesis of Ketoamine-linked COF and Elucidation of Electron-transfer Dynamics for Enhanced Photocatalytic H_2O_2 Production
P56	Urosa Latief	Multifunctional Poly(vinylidenefluoride) based Composites: Harvesting Biomechanical Energy for Self-Powered Piezo-Optoelectronic Application
P57	Astha Singh	A coffee waste@anthraquinone COF nanocomposite as a photocatalyst for green hydrogen production
P58	Aswathy N R	Sustainable Cellulose Acetate–Clay Porous Organic Polymer for Efficient Removal of Anionic Dyes from Wastewater
P59	Atul Kapoor	Bifunctional Conjugated Microporous Polymers for Ultra-trace Antibiotic Detection and Photocatalytic Micropollutant Degradation
P60	Durga Ramadas Nayanar	Experimental and Mathematical modeling studies of structured reactors for CO_2 adsorption
P61	Gargee Roy	A supramolecular host matrix for preserving fluorescence in the solid-state
P62	Gugulothu Rambabu	Designing High-Performance Co-N Embedded Covalent Triazine Frameworks for Oxygen Reduction in Zn-Air Batteries
P63	Gumma Jayasri	Mechanistic Understanding of 5-Fluorouracil Encapsulation and Release in UiO-66: An Experimental and Computational Approach
P64	Harshita Bagdwal	Unveiling the Role of Polyoxometalates in Oxygen Evolution: A pH-Resilient Molecular-to-Heterogeneous Catalytic Transition
P65	Henrike von Wedel	Catalytic tandem reactions in mesoporous metal-organic frameworks
P66	Himani Goyal	Modulation of thermal behavior in Isostructural Glass forming Coordination Polymers by Alkyl-onium Cation Core Replacement
P67	Abhiram Kalluri	Water evaporation through Nanoporous membranes: Metal-Organic Frameworks
P68	Himanshu Kumar Bhatt	Highly Efficient Electrochemical Sensor Based on Polydopamine-Coated Silver Nanowire/Defect-ridden UiO-66-NH_2 Nanocomposites for Trace Detection of Cd(II) and Pb(II) Ions in Water

P69	Hiranmoy Pal	Cation-Assisted Water Oxidation with Crown Ether–Based Covalent Organic Frameworks
P70	Iradat Hussain Mafat	Accelerated Screening of Metal-Organic Frameworks for Carbon Dioxide Capture
P71	J Manojkumar	Next-Gen Energetic 3D MOFs and Hydrogen-Bonded Frameworks for High-Energy Materials and Iodine Encapsulation
P72	Janaki Behera	A 2D microporous 'flexible-robust' MOF for efficient natural gas purification with C2s/CH4 and CO_2/CH_4 separations
P73	Jatin Chauhan	Shaping Nanocrystals to Understand Catalysis: Case Study of Fe_2O_3 and In_2O_3
P74	Jeebanjyoti Mohapatra	Tailored Nanoparticle Organic Network Membranes for Hydrogen Generation
P75	Joydeep Ray	Ligand Directed Dimensionality in Silver Cluster-Assembled Materials: Impact on Urea Oxidation Reaction and Resistive Switching
P76	Kabilan V M	Electrochemical Monitoring of Pd^{2+} Ions Using IRMOF-3 Modified Glassy Carbon Electrode for Nuclear Waste Monitoring as a Novel Sensor Platform
P77	Kajal Uphade	Ultrafast Synthesis of Conductive 2D Metal–Organic Frameworks
P78	Karan Marvaniya	2D Thin Films of Molecularly Woven Hydrogen Bonded Organic Framework for Precise Molecular separation
P79	Khushboo Rathore	Silver-Confined SVNIT-1 Metal-Organic Framework as a Promising H_2S Sensor for Asthma Monitoring and Diagnosis
P80	Kiran Asokan	A Scalable Approach Using gC3N4-Grafted Covalent Organic Framework Towards Sustainable Hydrogen Production from Seawater and Wastewater
P81	Kirti	Dynamic Linkage Microregulation at Atomic Nodes in Heptazine-Based Polymeric Networks for Enhanced Photocatalytic Baeyer-Villiger Oxidation
P82	Kishalay Biswas	Pore Engineering in Chemically Robust Porous Organic Polymer (POP) for Ultratrace Detection and Superior Sequestration of PFAS from Water
P83	KM. Archana Yadav	Ion-selective mixed matrix membrane using functionalized

		Metal Organic Framework
P84	Komal Jiindal	Mechanistic Insights into Shape-Selective Molecular Recognition through Rotational Dynamics in MOFs using Ab-initio molecular dynamics
P85	Krishnendu Jana	Covalent Organic Framework Nanocomposite-Based Electrode Materials for Sodium-Ion Storage
P86	Mukti Biswas	ZnO@Ce-BDC-NH2 as a Fluorescence "Turn-Off" Sensor for Ultrasensitive Detection of Copper (II) and Iron (III) ions
P87	M L Murchana Kalita	Exploring Porphyrin based 2D c-MOF as Single-Atom Catalyst for Carbon Dioxide Reduction Reaction: An ab initio Study
P88	Madhurima Sarkar	Conjugated porous organic polymer film for photoelectrocatalysis and electrochemical CO2 capture
P89	Mahesh Neem	Custom-built charged covalent-organic polymer for elevated-temperature boosted separation cum selective and benign fixation of CO_2 with bi-phasic iodine scavenging
P90	MERIN JOY	A Novel NiCo-MOF Dual-Function Electrocatalyst Tackling Energy and Environmental Concerns
P91	Manish Kukreja	Enhanced Luminescent Sensing of Pymetrozine Pesticide in Cow Milk Using an 8-c Connected Cd(II) Coordination Network with Sensitivity Up to 0.448 ppm
P92	Manish Kumar	Electrocatalytic Hydrogen Evolution Reaction (HER) with Triphenylamine based Metal-free Conjugated porous Organic Polymers (POPs)
P93	Manish Ramesh Shingole	Controlled Pore Modulation and Structural Evolution in ZIF-67 through Nickel and Copper Substitution: combined BET-PALS Insights Analysis
P94	Meenakshi	Metalloligand-Based Metal-Organic Frameworks as Tunable Platforms for Visible-Light-Driven Photocatalysis
P95	S Muthukrishnan	Exploring MOF-Hydrocarbon integration for sustainable adsorption cooling: An accelerated approach using Bayesian optimization and Mote Carlo simulations
P96	Vignesh Pai	Machine Learned Interatomic Potentials for Chemical Reactions