International Conference on Separation and Purification Technologies (ICSPT) 2023

Dept. of Chemical and Biochemical Engineering
Indian Institute of Technology Patna

Day 1 – 7th December 2023

Time	Program
09:40-10:10	Registration and Tea
10:10-10:55	Inaugural Ceremony
11:00-11:45	Plenary Talk by Dr. Chilla Malla Reddy, IIT Hyderabad - *Fracture-Induced Surface Charges, Crystal Morphology Impact on Bulk Solid Form Performance*
11:45-12:05	High-Tea
12:05-12:20	Dr. Sanjeev Kumar Prajapati, IIT Roorkee - *Microwave-assisted enzymatic pretreatment of microalgal biomass for recovery of valuable bioproducts*
12:20-12:45	Dr. Aijaz Dar, University of Kashmir - *Crystal engineering of the organic solid-state emitters*
12:45-01:00	Poster Presentation
01:00-02:20	Lunch
02:20-02:45	Dr. G. Muthuraman, Presidency College - *Removal and recovery of chromium from contaminated agricultural soil*
02:45-04:15	Technical Session 1
04:15-04:40	Tea & Poster Presentation
04:40-05:05	Dr. Somak Chatterjee, BITS Pilani - *Functionalized materials for water purification*
05:05-06:35	Technical Session 2
07:30	Gala Dinner

Day 2 – 8th December 2023

Time	Program
09:50-10:00	Welcoming of Delegate
10:00-10:45	Plenary Talk by Dr. Jerry Heng, Imperial College London - *Biocrystallisation for the Purification of Proteins from Impure Solutions: A Selective Nucleation Approach*
10:45-11:25	Plenary Talk by Dr. Ashutosh Singh, University of Guelph - *Application of separation, purification and concentration techniques in agri-food sector and their integration in the agri-food supply chain*
11:25-11:40	Tea

11:40-12:15	Dr. Sameer V. Dalvi, IIT Gandhinagar - *Antisolvent Crystallization of Active Pharmaceutical Ingredients: Controlling particle Size, Polymorphism, Non-Classical Crystallization Pathways, Cocrystallization*
12:15-12:40	Dr. Winny Routray, NIT Rourkela - *Pretreatment, Separation and Purification techniques for Food Industry Waste Utilization*
12:40-01:20	Technical Session 3
01:20-02:30	Lunch & Poster Presentation
02:30-02:50	Dr. Pushpa Jha, Sant Longowal Institute of Engineering & Technology - *Agricultural waste assessment as adsorbents for the removal of pollutants from industrial effluents*
02:50-03:10	Dr. Nakkeeran Ekambaram, Sri Venkateswara College of Engineering - *Polygalacturonase from Aspergillus carbonarius - Production, Purification and its Applications in Food Industries*
03:10-04:00	Technical session 4
04:00-04:15	Tea and Snacks
04:15-05:00	Agro-Processing Startup Meet
05:00-05:25	Prize distribution and Valedictory Ceremony

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Technical sessions

Sl. No.	Speaker, Institute	Abstract Title
Technical Session 1		
TS1.2	Ms. Nivedita Bhardwaj, IIT BHU	*LCMS based Dereplication Guided Identification and Purification of Novel Metabolites using Silica Matrix from Dysoxylum malabaricum*
TS1.3	Ms. Sanju Kumari, IIT BHU	*Extraction and Purification of New Compounds from Murraya paniculata to investigate their cytotoxic potential*
TS1.4	Ms. Sana Perween, IIT Patna	*Interfacial and dynamical behavior of droplet coalescence: A molecular dynamics study*
TS1.5	Mr. Harshit Tiwari, IIT Roorkee	*Microalgal biomass harvesting using sewage sludge cultivated in hydroponics effluent*
TS1.6	Mr. Kapil Dev Mahato, NIT Jamshedpur	*Prediction of Organic Dyes Absorption Wavelength Using Different Machine Learning Boosting Models*
TS1.7	Mr. Jeshurun A, IIT Madras	*A novel electric eel inspired microchannel for bio-nano particle separation*
Technical Session 2		
TS2.1	Mr. Vipin Kumar Sharma, IIT Tirupati	*Case study on advanced separation techniques used in alkali leaching-based mineral processing plant*
TS2.3	Mr. Shashi Prakash Gupta, IIT Patna	*Removal of Ciprofloxacin from Aqueous Solution Using Graphene Oxide and Reduced Graphene Oxide*
TS2.4	Ms. Arpita Padhan, NIT Jalandhar	*Wetting Modulation of Starch-Poly Vinyl Alcohol Based Membranes for Under Oil Recovery of Water*
TS2.5	Mr. Devargya Chakraborty, IIT Patna	*Wetting Behavior and Interfacial Dynamics of Aqueous Deep Eutectic Solvents on Diverse Substrates through Molecular Dynamics Simulations: Implications for Enhanced Oil Recovery and Sustainable Applications*
TS2.6	Mr. Mohammad Irfan, IIT Tirupati	*Fabrication of nonfluorinated and superhydrophobic/superoleophilic PDMS/PMMA electrospun membranes for vacuum-driven separation of moisture from virgin coconut oil*
TS2.7	Mr. Abhishek Keshav Sharan Saxena, NIT Raipur	*Effect of Sintering Temperature on Multipurpose Ceramic Membrane Fabricated Using Cheaper Raw Materials*
TS1.1	Ms. Priya Bisht, IIT Roorkee	*Advanced Extraction Methods for the Recovery of Organic Chemicals from Aqueous Phase derived through Hydrothermal Liquefaction*
Technical Session 3		
TS3.1	Mr. Maan Singh, IIT BHU	*Sonocrystallization approach to modify crystal habit for improving powder processability*
TS3.2	Ms. Chahat Jain, IIT Gandhinagar	*Polymorphism in L-Glutamic Acid using Combined Cooling and Antisolvent Crystallization*

TS3.3	Ms. Chaitra Chandrakant Shanbhag, NIT Karnataka	*Encapsulation of Anthocyanins from Garcinia indica in the Nano-complexes formed by Sodium Caseinate and Carboxymethyl Cellulose*
Technical Session 4		
TS4.1	Ms. Subhanki Padhi, NIT Rourkela	*Extraction of cellulose from lignocellulosic biomass: Dependence of rheological properties on the concentration, ionic strength and pH of cellulose*
TS4.2	Ms. Monika Chandrakant Diwathe, NIT Raipur	*Ultrasound-assisted extraction and Quantification of Antioxidant Activity and Phenolic Content of Cordia Dichotoma leaf extracts*
TS4.3	Ms. Shristi Shefali Saraugi, NIT Rourkela	*Biochar as a potential filtration and separation media*
TS4.4	Ms. Aparna Singh, NIT Surathkal	*Harnessing Microbial cell -Biochar Synergy for Eco-Friendly Wastewater Treatment*
Poster Session		
PS1.1	Ms. Rituparna Saikia, Tezpur University	*Arresting ammonia evaporation by precipitation of calcium and magnesium ammonium phosphate fertilizer*
PS1.2	Ms. Tushmita Das, Tezpur University	*Simultaneous removal of Fluoride with Manganese and Mercury by Fluoride Nilogon (PACLT) Method*
PS1.3	Mr. Shamiran Baroi, Tezpur University, Assam	*Simultaneous Removal of Mercury, Lead, Manganese, and Iron from Groundwater by Arsiron Nilogon Method*
PS1.4	Mr. Neelesh Nandan, IIT Patna	*Crystallization of 4-acetaminophen (paracetamol) through continuous slug flow crystallizer*
PS1.5	Ms. Anindita Saha, IIT Patna	*A study on the synthesis and characterization of 1:1 SMZ-ASA cocrystal with improved aqueous solubility and dissolution rate*
PS1.6	Ms. Rashi Srivastava, IIT Patna	*Hydrophobic-Polar natural deep eutectic solvent-based phytochemical extraction from Aegle marmelos leaves*