

International Conference on

Advanced Bioprocessing Technologies for Biomass Conversion - Sustainability & Bioresource Management (IBA-IFIBiop XI)

1st - 6th December 2024 | Hong Kong & Dongguan

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Organised & Hosted By



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



中国生物工程学会
Chinese Society of Biotechnology

Conference Program

Day 1: 02 Dec 2024 (Venue: The Hong Kong Polytechnic University)

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|------------|---|---------------------------------------|-------------------------|
| 0730- 0900 | Registration (Chiang Chen Studio Theatre) | | |
| 0900-0955 | Opening Ceremony (Chiang Chen Studio Theatre) | | |
| 0900-0905 | Opening Address: Chair - Prof. Jonathan Wong, Dongguan University of Technology & Hong Kong Baptist University | | |
| 0905-0910 | Welcome Speech: Prof. Ashok Pandey, General Chair, International Bioprocessing Association | | |
| 0910-0925 | Opening Speech: Dr. Samuel Chui, Director, Hong Kong Environmental Protection Department | | |
| 0925-0955 | Opening Keynote Speech: A3201/ Prof. Roger Ruan/ United States/ Waste Valorisation for Circular Economy Development | | |
| 0955-1030 | Group Photo and Coffee Break | | |
| 1030-1230 | Keynote Session: Chair – Prof. Jonathan Wong (Chiang Chen Studio Theatre) | | |
| 1030-1100 | Keynote Speech 1: A1213/ Prof. Huu Hao Ngo/ Australia/ Insightful Exploration of Algae in Circular Economy | | |
| 1100-1130 | Keynote Speech 2: A1917/ Prof. Ashok Pandey/ India/ Sustainable Solid Waste Management: A Case Study in India | | |
| 1130-1230 | International Bioprocess Association Award Presentation Ceremony 2024 (Prof. Ashok Pandey) | | |
| 1230-1400 | Lunch (1230-1330) and Poster Viewing (1300-1400, Room: CD 302 &303) | | |
| | Session A – Room: HJ302 | Session B – Room: HJ303 | Session C – Room: HJ304 |
| 1400-1535 | A1: Bioprocesses and Products Development | B1: Biofuels and Biorefineries | C1: Anaerobic Digestion |
| | Chair: Prof. Huu Hao Ngo | Chair: Prof. Apostolis Koutinas | Chair: Prof. Roger Ruan |
| | Co-Chair: Prof. Arun Goyal | Co-Chair: Prof. Rajeshwar Dayal Tyagi | Co-Chair: Dr. Lu Feng |

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| 1400-1425 | P1 | Plenary Lecture: A104/ Prof. Rui F Oliviera/ Portugal/ Physics-informed Neural Networks (Pinns) for Bioprocess Digitalization | P6 | Plenary Lecture: A1528/ Prof. Dan Tsang/ Hong Kong/ Renewable Hydrogen Production from Food Waste | P11 | Plenary Lecture: A2007/ Prof. Helene Carrere/ France/ Feedstock Preparation for Dry Batch Anaerobic Digestion in Leach Bed Reactor: From Lab-Scale to Full Scale Application |
| 1425-1445 | I1 | Invited Lecture: A1301/ Prof. Reeta Rani Singhania/ India/ Bioprospecting of Marine Fungi for Polysaccharide Degrading Enzymes | I10 | Invited Lecture: A3021/ Assoc. Prof. Michalis Koutinas/ Greece/ Harnessing the Potential of Biochar as an Advanced Functional Immobilization Carrier for Cells and Enzymes in Bioethanol and Starch Hydrolysis Bioprocesses | I19 | Invited Lecture: A2025/ Assoc. Prof. Suyun Xu/ China/ Optimization of Loading Rate and Food Waste-Sludge Ratio in CO ₂ -Enhanced Anaerobic Digestion Systems |
| 1445-1505 | I2 | Invited Lecture: A3579/ Prof. Emmanouil Papamichail/ Application of varied immobilization protocols of two plant proteases, in chitosan, and their influences on the clarification and quality of white wines | I11 | Invited Lecture: A1527/ Prof. Zhiping Zhang/ China/ Impact of Pre- and Post-Activation Selenium-Enriched Yeast on Photo-Fermentation Bio-Hydrogen Production | I20 | Invited Lecture: A1518/ Prof. Panyue Zhang/ China/ Adaptability of Anaerobic Digestion to Aquatic Plant Species and Its Strengthening Measures |
| 1505-1520 | O1 | A203/ Dr. Yi-Sheng Tseng/ Taiwan / The Development of Bioprocess to Synthesize Microalgae-Bacterial Cellulose Bio-Floccules | O20 | A1510/ Prof. Nadeem Tahir/ Pakistan/ Catalysing the Metabolism Through Magnetic Photocatalyst for Photo Fermentative Biohydrogen Production: Selectivity and Recyclability | O39 | A1501/ Assoc. Prof. Le Zhang/ China/ Utilizing Magnetic Field to Enhance Methane Production from Anaerobic Digestion of Nitrogen-Rich Organic Wastes |
| 1520-1535 | O2 | A702/ Mr Yumnam Robinson Singh/ India/ Unveiling the Biochemical, Structural and Degumming Application Attributes of a Thermostable Xylobiohydrolase, ACGH30A from <i>Acetivibrio Clariflavus</i> | O21 | A1523/ Prof. Danping Jiang/ China/ Shifting the Sunlight by Phosphorus: Solar Spectral Conversion Towards High Light Conversion Efficiency of Photo-Fermentative Hydrogen Production | O40 | A1001/ Dr. Wenyan Zhao/ Elevated Caproic Acid Production from One-Stage Anaerobic Fermentation of Organic Waste and Its Selective Recovery by Electro-Membrane Process |
| 1535-1555 Coffee Break | | | | | | |
| 1555-1720 | A2: Bioprocesses and Products Development | | B2: Biofuels and Biorefineries | | C2: Anaerobic Digestion | |
| | Chair: Prof. Rui F. Oliviera | | Chair: Prof. Ajay Kalamdhad | | Chair: Prof. Hans Oechsner | |
| | Co-Chair: Assoc. Prof. Jun Zhao | | Co-Chair: Prof. Sang Jun Sim | | Co-Chair: Assoc. Prof. Suyun Xu | |
| 1555-1615 | I3 | Invited Lecture: A2029/ Prof. Donghyuk Kim/ Korea/ Explainable Deep Learning Model Leveraging Attention Analysis for NAD/NADP Cofactor Specificity | I12 | Invited Lecture: A1401/ Prof. Athanasios A. Koutinas/ Greece/ Bacterial Cellulose Promotional Effect Study on Starch Simultaneous Saccharification –Alcoholic Fermentation without GMO | I21 | Invited Lecture: A202/ Prof. In Seop Chang/ Korea, Republic of/ CO Dehydrogenase (CODH) Overexpression Primarily Boosts Up Metabolic Rates in Biological CO ₂ Capture via Acetogenesis |
| 1615-1635 | I4 | Invited Lecture: A609/ Prof. Chunhong Wang / China/ Progress in Development and Application of Blast Fiber Reinforced Bio-Based Composites | I13 | Invited Lecture: A1322/ Prof. Apostolis Koutinas/ Greece/ Biorefinery Electrification as a Sustainable and Circular Approach for the Production of Succinic Acid from Crude Renewable Resources | I22 | Invited Lecture: A1901/ Prof. Yen Wah Tong/ Singapore/ Improving Food Waste Anaerobic Digestion Efficiency with Biochar in Decentralized Systems |
| 1635-1650 | O3 | A401/ Assoc. Prof. Hua Li/ China/ Electrochemical Disinfection Modifies and Promotes Community-Wide Permissiveness Towards the Conjugative antibiotic Resistance Plasmid Pkjk5 | O22 | A1314/ Dr. Susan Grace Karp/ Brazil/ Efficient Saccharification of Aspen Wood and Waste Pulp Using <i>Penicillium Verruculosum</i> and <i>Trichoderma Reesei</i> Enzyme Preparations | O41 | A1511/ Dr. Lu Feng/ China/ Biological Conversion of CO ₂ to CH ₄ : Impact of Process Impurities on in-Stu and Ex-Situ Biofilm-Based Process. |

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| 1650-1705 | O4 | A2902/ Dr. Prarabdh Chandrakant Badgajar/ India/ formulation of A Functional Millet Based Probiotic Dairy Product by Phytase Producing Lactobacilli and assessing Its Impact on Iron Bioavailability in anaemic Rats | O23 | A1508/ Dr. Davidraj Johnravindar/ India/ Hydrochar Enhanced Hydrogen Production from Cassava Industrial Waste Residue Using <i>Enterobacter Aerogenes</i> MTCC 2822 | O42 | A2005/ Assoc. Prof. Jingxin Zhang/ China/ Mechanistic Insights into Microbial Extracellular Electron Transfer Enhanced by Iron/Carbon-Based Materials in Anaerobic Digestion Processes |
| 1705-1720 | O5 | Stephen Shen/ China/ Unleash Your Research Impact with Wiley Life Sciences Journals and Special Issue Program | O24 | A610/ Miss Olga Psaki/ Greece/ Biotechnological Production of Poly(3-hydroxybutyrate) and Chemical Recycling of Post-consumer Bioplastics | O43 | A1930/ Prof. Patrick Drogui/ Canada/ Electro-catalytic Degradation of Per- and Polyfluoroalkyl (PFAS) Persistent Pollutants in Water and Wastewater by Using Plasma Torch Synthesized Pure-Magnéli Phase-Ti4O7 Anodes |

17:20-18:30

Poster Viewing (Room CD 302 & 303)

Day 2: 03 Dec 2024 (Venue: The Hong Kong Polytechnic University)

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| Poster Viewing | | | | | | |
| 0800-0900 | | Poster Viewing | | | | |
| 0900-1035 | | A3: Bioprocesses and Products Development | B3: Biofuels and Biorefineries | | C3: Anaerobic Digestion | |
| | | Chair: Prof. Cheng-Di Dong | Chair: Dr. Susan Grace Karp | | Chair: Prof. Zhiping Zhang | |
| | | Co-Chair: Dr. Jialin Liang | Co-Chair: Prof. Reeta Rani Singhania | | Co-Chair: Prof. Michael Sauer | |
| 0900-0925 | P2 | Plenary Lecture: A2018/ Prof. Hans Oechsner/ Germany/ Fibres and Biogas from Separately Collected Municipal Biowaste | P7 | Plenary Lecture: A2502/ Prof. Su Shiung Lam/ Malaysia/ Transforming Waste to Wealth: Microalgae for High-Value Products and Eco-Friendly Wastewater Management | P12 | Plenary Lecture: A2030/ Prof. Fan Lv / China/ Application of Biochar in Anaerobic Digestion: Challenges During a Lab-to-Field Transition |
| 0925-0945 | I5 | Invited Lecture: A3334/Prof. Hailin Tian/ China/ Enhanced methane production from lignocellulosic straw by acidified food waste coupled with hydrothermal pretreatment | I14 | Invited Lecture: A1513/ Prof. Sang Jun Sim/ Korea/ Economically and Environmentally Sustainable Biological CCUS by Microalgae towards CO ₂ -Derived Green Materials | I23 | Invited Lecture: A1902/ Prof. Cristóbal N Aguilar/ Mexico/ Solid State Fermentation as Key Tool for Valorisation of Fruit Wastes |
| 0945-1005 | I6 | Invited Lecture:A701/ Prof. Arun Goyal/ Structure and Functional analysis of Recombinant Rhamnogalacturonan Acetyl Esterase and Its Role in inhibiting Colon Cancer Cells and Colon-Targeted Drug Delivery by Forming Hydrogels | I15 | Invited Lecture: A1207/ Prof. You-Kwan Oh/ Korea, Republic of/ Astaxanthin and Lipid Production for Microalgal Biorefinery: Overcoming Challenges of Complex Life Cycle and Cell-Wall Rigidity | I24 | Invited Lecture: A1306/ Prof. Volker F. Wendisch / Germany/ Strain Engineering for Efficient Use of Agricultural and Food Side Streams |
| 1005-1020 | O6 | A2602/ Mr Piyush Verma/ India/ Green Pretreatment of Vegetable Waste for Sustainable Production of Agro-Waste Derived Xylooligosaccharides | O25 | A1201/ Prof. Pradeep Verma/ India/ Sub-Pilot Scale Two-Stage Sequential Cultivation of Microalgal Consortia in Municipal Wastewater: Effects of Seasonal Variations on Nutrient Removal Potential, Biomass and Biomolecules Production | O44 | A1512/ Prof. Dongyun Du/ China/ Optimization of Aerobic/Anaerobic System Based on Process Intensification |
| 1020-1035 | O7 | A1309/ Mrs. Reetu Saini/ Partial Purification and Evaluation of Antioxidant and Probiotic Activities of Oligomers Derived from Pineapple Leaf Waste | O26 | A2407/ Dr. Evdokia Syranidou/ Greece/ Developing Tailored Microalgal-Bacterial Communities Towards Sustainable Biological Recycling of Bioplastics | O45 | A1925/ Dr. Liwen Luo/ Hong Kong/ Closed Loop Solvent Generation and Direct Air Carbon Capture at Ambient Condition |
| 1035-1055 | Coffee Break | | | | | |

| 1055-1200 | | A4: Bioprocesses and Products Development | | B4: Biofuels and Biorefineries | | C4: Biological Waste Treatment | |
|-----------|-----|--|-----|--|-----|---|--|
| | | Chair: Prof. Suyun Xu | | Chair: Prof. Su Shiung Lam | | Chair: Prof. Fabrizio Adani | |
| | | Co-Chair: Dr. Leilei Dai | | Co-Chair: Prof. You-Kwan Oh | | Co-Chair: Prof. Yonghong Wu | |
| 1055-1115 | 17 | Invited Lecture: A3102/ Prof. Alain Brillard/ France/ Analysis of the Combustion of Wet Feedstock | 116 | Invited Lecture: A3013/ Prof. Cheng-Di Dong/ Taiwan, Province of China/ Advanced Applications of Cow Manure-Derived Biochar in Water Treatment: Adsorption and Catalytic Degradation of Organic Pollutants | 125 | Invited Lecture: A1928/ Mr. Zhaopeng Cheng/ China/ Using waste to produce green methanol | |
| 1115-1130 | O8 | A1320/ Dr. Katiana Filippi/ Greece/ Pretreatment of Sawdust Using Deep Eutectic Solvents for Succinic Acid Production | O27 | A2106/ Assoc. Prof. Abha Kumari/ India/ Taguchi Orthogonal Design for Optimization of Enzymatic Pretreatment of Marigold Flower Petal for Complete Recovery of Lutein Ester | O46 | A1918/ Assoc. Prof. Xiaoqian Zhang/ China/ Recent Advances in Sustainable Recovery of Lignin and Protein from Brewer's Spent Grain | |
| 1130-1145 | O9 | A2601/ Dr. Erminta Tsouko/ Greece/ Innovative Rotary Disk Bioreactor for Enhanced Bacterial Cellulose Production and Its Application in Biopolymeric Packaging Films | O28 | A1316/ Prof. Zhiliang Fan/ United States/ Sugar Acid Based Biorefinery | O47 | A607/ Mr Sik Chun Johnny Lo / Hong Kong/ Superhydrophobic Membranes from Food Waste-Derived PHBV Biopolymer and Silica Nanoparticles via Co-Electrospinning-Electrospray | |
| 1145-1200 | O10 | A606/ Miss. Yahui Miao/ China/ Enhancing Lactic Acid Tolerance and Sophorolipids Production of Starmerella Bombicola by Atmospheric and Room-Temperature Plasma (ARTP) and Adaptive Laboratory Evolution (ALE) | O29 | A1302/ Miss Aishwarya Aishwarya / India/ an Integrated Approach towards the Co-Production of Green Bioethanol and High-Value Compound, Xylitol from Elephant Grass | O48 | A2115/ Mr Mingjiang Zhang/ China/ Regulation on the Production of VFAS from Food Waste Fermentation by Fungal Mash and Its Enhancement on Biological Nitrogen Removal from Wastewater | |
| 1200-1400 | | Lunch (1200-1300) & Poster Viewing (1300-1400, Room: CD 302 & 303) | | | | | |
| 1400-1510 | | A5: Thermal Treatment | | B5: Biofuels and Biorefineries | | C5: Biological Waste Treatment | |
| | | Chair: Prof. Tianwei Hao | | Chair: Prof. Prof. Volker F. Wendisch | | Chair: Prof Ji Li | |
| | | Co-Chair: Prof. Alain Brillard | | Co-Chair: Prof. Prof. Zhiliang Fan | | Co-Chair: Prof. Qiyong Xu | |
| 1400-1425 | P3 | Plenary Lecture: Plenary Lecture: A3333/Prof. Qunxing Huang/ China/ New pyrolysis system for producing high quality black carbon from end-life-tire | P8 | Plenary Lecture: A2027/ Prof. Ajay Kalamdhad/ India/ Waste to Wealth: A Comprehensive Study on Biogas in India | P13 | Invited Lecture: A1916/ Prof. Michael Sauer/ Austria/ the Microbial World Shows A Way from Waste to Circularity | |
| 1425-1440 | O11 | A3023/ Dr. Maadeswaran P / India/ Removal of Environmental Pollutants Using ZnO/Bi ₂ O ₃ /CO ₃ -Biochar Generated from Manikara Zapota Peel Hybrid Nanocomposite | O30 | A3209/ Dr. Evanthiananaki/ Greece/ Exploiting Residual Lipids via thermochemical Processes for Advanced Sustainable Fuels: the Case Study of a Greek Refinery | O49 | A103/ Prof. Guangming Zhang / China/ Predicting Photosynthetic Bacteria-Derived Protein Synthesis from Wastewater Using Machine Learning and Causal Inference | |
| 1440-1455 | O12 | A1913/ Dr. Leilei Dai/ China/ Microwave-assisted Pyrolysis of Solid Waste for the Production of Fuels and Chemicals | O31 | A1410/ Prof. KA Ramesh Kumar / India/ A Novel Biodiesel Blend for Sustainable Development | O50 | A2401/ Prof. Yonghong Wu/ China/ Biofilm-Mediated Nutrient Removal | |

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| 1455-1510 | O13 | A3213/ Dr. Gan Sin Yee/ Malaysia/ Hydrothermal Synthesized Kenaf Core Cellulose Carbamate Using Autoclave | O32 | A402/ Miss Triya Mukherjee/ India/ Bio-Succinic Acid Production Using CO ₂ as A Feedstock | O51 | A1318/ Miss Yuehan Li/ China/ Efficient Production of Volatile Fatty Acids from Corn Stalks Using Rumen Solid Residues Fermentation |
| 1510-1530 | Coffee Break | | | | | |
| 1530-1715 | A6: Environmental Bioremediation | | B6: Circular bioeconomy and energy & environmental sustainability | | C6: Composting | |
| | Chair: Prof. Qunxing Huang | | Chair: Prof. Dan Tsang | | Chair: Prof. Fan Lv | |
| | Co-Chair: Assoc. Prof. Jun Zhao | | Co-Chair: Prof. Mark R. Wilkins | | Co-Chair: Dr. Cristóbal N. Aguilar | |
| 1530-1555 | P4 | Plenary Lecture: A2032/ Prof. Lixiang Zhou/China/Recovery of Organic Matter and Nutrients from the Anaerobic Digestate of animal Waste or Food Waste by Biological Conditioning and Dewatering | P9 | Plenary Lecture: A3212/ Prof. Qiyong Xu / China/ A Hydrothermal Coupled Pyrolysis Process for Effective Management of Food Waste Digestate | P14 | Plenary Lecture: A507/ Prof. Ji Li/ China/ Composting industry in China: Situation and Perspectives |
| 1555-1615 | I8 | Invited Lecture:A1929/ Prof. Tianwei Hao/ China/ Non-Equilibrium Thermodynamic analysis of Anaerobic Membrane Bioreactors for Sulfate-Laden Wastewater Treatment | I17 | Invited Lecture: A1915/ Assoc. Prof. Eldon Rene/ India/ an analysis of the Recent Initiatives in Nigeria to Promote Circular Bio-Economy and industrial Symbiosis | I26 | Invited Lecture: A502/ Prof. Fabrizio Adani/ Italy/ Renewable Fertilizers from Organic Wastes to Make Agriculture More Sustainable Reconnecting Urban and Rural Areas |
| 1615-1630 | O14 | A3027/ Assoc. Prof. Kanchan Deoli Bahukhandi/ India/ Nature-Based Solutions for the Treatment and Remediation of Emerging Contaminants and Microplastics in Aquatic Water Bodies of the Himalayan Region : an Approach to Rejuvenate River Ecosystems | I33 | A1924/ Mr Mari Selvam S/ India/ Exploring the Effectiveness of Enhanced Crop-Residue Based Flocculants in Microalgae Harvesting | I52 | A2004/ Dr. Zhenye Tong / China/ Efficient Removal of Antibiotics Resistance Genes from Biogas Slurry Using Plant-Scale Composting: Further Enhancement Via Food Waste Hydrochar Addition and Molecular Membrane Covering |
| 1630-1645 | O15 | A2901/ Dr. Karuna Narsappa Nagula/ India/ Unusual Nutraceuticals for anti-Cancer Activity | O34 | A1701/ Dr. Dimitrios Ladakis/ Greece/ Sustainability Analysis of Aviation Bio-Fuels' Production via Fermentation Process Utilizing Spent Coffee Grounds and Orange Peel Residues | O53 | A2023/ Dr. Ruonan Ma / China/ Bioaerosol Emission Characteristics and Potential Risks during Resistance Composting: Focus on Pathogens and antimicrobial |
| 1645-1700 | O16 | A3006/ Miss Qingyi Liu/ China/ Achieving Efficient Microwave-assisted Degradation of Organic Contaminates Through Carbon-Mineral Composite Design | O35 | A1305/Mr. Aditya Yadav/India/Valorization of Cocoa Pod Husk Biomass for optimized Production and Purification of Xylooligosaccharides | O54 | A504/Dr. Elisa Clagnan/ Italy/ Microbiologically activated bio-based fertilizers as efficient substitute of chemical fertilization: Application effects on yield and quality of tomato and wheat plants |
| 1700-1830 | Poster Viewing, Room: CD 302 & 303 | | | | | |
| 1900-2200 | Banquet Dinner: Choi Fook Royal Banquet (iSquare), Tsim Sha Tsui | | | | | |

Day 3: 04 Dec 2024 (Venue: The Hong Kong Polytechnic University)

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|-----------|---|--|--|--|---|--|
| 0900-1030 | A7: Environmental Bioremediation | | B7: Biofuels and Biorefineries | | C7: Composting | |
| | Chair: Prof. Hailong Wang | | Chair: Prof. Guanyu Zheng | | Chair: Prof. Helene Carrere | |
| | Co-Chair: Prof. Yen Wah Tong | | Co-Chair: Assoc. Prof. Eldon Rene | | Co-Chair: Prof. Luciana Vandenberghe | |

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| 0900-0925 | P5 | A1411/ Assoc. Prof. Jun Zhao/ China/ Photocatalytic Valorization of Biomass-Derived Alcohols | P10 | Plenary Lecture: A601/ Prof. Mark R. Wilkins/ United States/ PHB Production from Simultaneous Utilization of Maize Fiber Hydrolysate and Maize Distillers' Oil | P15 | Plenary Lecture: A509/ Prof. Guoxue Li / China/ Clean Production of Organic Fertilizer from Livestock Manure |
| 0925-0945 | 19 | Invited Lecture: A2026/ Prof. Guanyu Zheng/ China/ Persistence Evaluation of Faecal Pollution Indicators in Dewatered Sludge and Dewatering Filtrate of Municipal Sewage Sludge: the Impacts of Ambient Temperature and Conditioning Treatments | 118 | Invited Lecture: A1202/ Prof. Luciana Vandenbeerghe/ Brazil/ Strategies for Polyhydroxyalkanoates Production in a Biorefinery Concept | 127 | Invited Lecture: A3029/ Prof. Chen Qing/ China/ Assessing Phosphorus Speciation in Carbon-Based Materials from Manure Sources and Their Influence on Soil Phosphorus Geochemical Cycling |
| 0945-1000 | O17 | A2302/Prof. Izabela Michalak/ Poland/ Sawdust as a Soil Additive increasing the Efficiency of Phytoremediation of Soil Contaminated with Cadmium Ions | O36 | A1303/Mr. Aayush Mathur/ India/ Valorization of Pearl Millet Straw for Enhanced Bioethanol Production | O55 | A2017/ Dr. Zhicheng Xu/ China/ Microbial Sources and Sinks of Nitrous Oxide During Organic Waste Composting |
| 1000-1015 | O18 | A1919/ Assoc. Prof. Shamsundar Subbarao / India/ Design, Development, Fabrication and Testing of PSA for Bio-CNG at NIE CREST, NIE Mysuru | O37 | A1319/ Prof. Made Tri Ari Penia Kresnowati/ indonesia/ integrated Biorefinery of Oil Palm Empty Fruit Bunches for the Production of Ethanol, Xylitol, Vanilin, and Carotene | O56 | A2111/Dr. Liu Yan/ China/ Dicyandiamide Shifts the Production Pathway from Denitrification to incomplete Nitrification Dominated by the AmoA Gene During Composting |
| 1015-1030 | O19 | A2204/ Prof. Suresh Kumar Dubey/ India/ Omics Perspectives of Fipronil Degradation Through Bacterial Population Isolated from Native Contaminated Soil | O38 | A1404/ Dr. Shazia Rehman/ Hong Kong/ Synergistic Bioprocessing of Non-Sterile Food Waste for 2,3-butanediol Production – A Green Approach to Sustainable Aviation Fuel | O57 | A2107/ Dr. Xia Gao/ China/ Dynamics of Antibiotic Resistance Genes During Manure Composting: Reduction in Herbivores Manure and Accumulation in Carnivores |
| 1030-1050 | Coffee break (Chiang Chen Studio Theatre) | | | | | |
| 1050-1220 | Keynote Session: Chair – Prof. Duu-Jong Lee (Chiang Chen Studio Theatre) | | | | | |
| 1050-1120 | Keynote Speech 3 A3018/ Prof. Hailong Wang/ New Zealand/ Biochar: Transforming Waste Biomass into a Negative Emissions Solution | | | | | |
| 1120-1150 | Keynote Speech 4: A2033/ Prof. Rajesh Tyagi/ Canada/ Wastes as Raw Material for Bioplastics: Challenges and Opportunities | | | | | |
| 1150-1220 | Keynote Speech 5: A806/Prof. Korneel Rabaey/ Belgium/Electrochemical in Situ Extraction Enables High Purity Product Recovery from Bioproduction | | | | | |
| 1220-1240 | Closing Session and Award Presentation (Prof. Ashok Pandey, Prof. Jonathan Wong) (Chiang Chen Studio Theatre) | | | | | |
| 1240-1430 | Lunch | | | | | |

Poster Programme

| Poster Viewing | Special Viewing Time |
|---|---|
| All Day Open from 2 nd to 3 rd Dec | 2 nd December: 13:00-14:00 & 17:20-18:30; 3 rd December 08:00-09:00, 13:00-14:00 & 17:15-18:30 |

| Abstract ID | Position No. | Name/Nationality | Title |
|--|--------------|--|---|
| Anaerobic Digestion | | | |
| 3202 | P1 | Dr. Lisandra Meneses / Portugal | Hydrothermal Pretreatment with and without Oxidant for Biogas Production from Sludge, Dairy, and Wood Residues: a Case Study Utilizing Conventional Activated Sludge |
| 1912 | P2 | Assoc. Prof. Jialin Liang / China | Triclocarban Transformation in Sludge Conditioning Process |
| 3007 | P3 | Miss Wenjing Tian / China | Facilitating Intracellular Electron Bifurcation by Mediating Flavins-Based Extracellular and Transmembrane Electron Transfer: a Novel Role of Biochar in Dark Fermentation for Hydrogen |
| 1522 | P4 | Mr. Wenjian Dong / China | Pig Urine Induced Ternary Buffering Complex and Associated Microbial Community Coping with Acid Inhibition During High Solid Anaerobic Digestion of Rice Straw |
| 804 | P5 | Dr. Youli Yang / China | The Dual Role of Magnesium Carbonate in the Anaerobic Production of Propionic Acid from Vegetable Waste |
| 1519 | P6 | Mr. Jian Su / China | Mechanism of Acid Inhibition Alleviation During Anaerobic Co-Digestion of Pig Manure and Straw in a Micro-Oxygenated Environment |
| 1529 | P7 | Miss Lijun Luo / China | Assessing the Impact of Inoculum Types on Mono-Digestion and Co-Digestion of Food Waste and Sewage Sludge |
| 2011 | P8 | Mr. Jiahao Zhang / China | Establishing a Cost-Effective Pathway for Anaerobic Sanitation Treatment of Animal Manure: Dependence on Feeding Solid Content |
| 2022 | P9 | Dr. Ho Ka Kin / Hong Kong | An Innovative, Convenient and Hygienic Way of Collecting Household Food Waste – Food TranSmarter |
| 1504 | P10 | Dr. Xing Yan / China | High-yield direct biohydrogen production from undetoxified pretreated garden waste: Enhanced substrate tolerance and synergistic degradation by co-culture of thermophiles |
| 1515 | P11 | Mrs. Xiao-Xing Li / China | Improved Biogas Production via Biochar-Assisted Thermophilic Dry Anaerobic Co-Digestion of Tobacco Stalk and Sludge: Long-Term Performance and Mechanism |
| Composting | | | |
| 2116 | P12 | Miss Xinyuan Zhang / China | Stratified a Eration Supplied an Effective Way for Ammonia and Greenhouse Gas Mitigation in Composting |
| 2009 | P13 | Miss Ruolan Tang / China | Iron-Modified Biochar of Mitigate Nitrogen Loss During Pig Manure Composting: Performance and Mechanisms |
| 901 | P14 | Miss Jiani Wang / China | The Enrichment of Antibiotic Resistance Genes in Swine Manure Compost Was Related to the Bulking Agent Types |
| 2015 | P15 | Miss Lanxia Zhang / China | Unravelling Biotic and Abiotic Mechanisms of Mature Compost to Alleviate Gaseous Emissions in Kitchen Waste Composting by Metagenomic Analysis |
| 2020 | P16 | Miss Ruohan Xia / China | Deciphering the Horizontal Transfer Mechanisms of Antibiotic Resistance Genes during Kitchen Waste Composting Inoculated with Mature Compost Using Metagenomics |
| 501 | P17 | Dr. Yumin Duan / China | Biochar Regulating Dissolved Organic Matter and Bacterial Community Structure of Sheep Manure Composting |
| 2008 | P18 | Mr. Zhaoyong Sun / China | Microbial Mechanisms of Biochar Addition on Carbon and Nitrogen Synergistic Retention During Distilled Grain Waste Composting: Insights from Metagenomic Analysis |
| 102 | P19 | Dr. Dongyi Li / China | Synergetic Effect of Combined Biochar and Nitrifying Inoculum on Nitrogen Conservation during Food Waste Digestate Composting |
| Biofuels and Biorefineries | | | |
| 1409 | P20 | Mr. Sahil Dhull / India | Maximizing Bioethanol Productivity: A Dual Strategy of Room Temperature Pretreatment and Cyclic Temperature Shifting |
| 1505 | P21 | Dr. Ting Yang / China | Transition Metal-embedded Organic Frameworks Preparation and Research on Their Catalytic Activity in Hydrogen Production |
| Bioprocesses and Products Development | | | |
| 1313 | P22 | Miss Shristy Sonal | Valorization Of Lanatan Camara for Efficient Sugar Production |
| 1305 | P23 | Mr. Aditya Yadav /India | Valorization of Cocoa Pod Husk Biomass for Optimized Production and Purification of Xylooligosaccharides |
| 1312 | P24 | Miss Akanksha Shree / India | Sustainable Pretreatment of Lignocellulosic Biomass Using Deep Eutectic Solvent: Pathway to Efficient Biomass Conversion |
| 2024 | P25 | Mr. Socheatha Chea Tork / United States | Design and Operating A Modular Controlled Environment System for Black Soldier Fly (BSF) Egg Production |
| 606 | P26 | Miss Yahui Miao / China | One-Step Sophorolipid Production from Food Waste via Evolved Starmerella Bombicola and Modified Bioreactor Design |
| 2408 | P27 | Miss Fryni Pyrilli / Cyprus | Mineralisation of Thermochemically Pretreated Thermoplastic Starch Using an Active Microbial Community |
| 2410 | P28 | Mr. Hsieh, Cheng - En / Taiwan Province Of China | Enhancing the PVC Wastewater Treatment Efficiency of Algae-Bacteria Symbiotic Systems through Engineering Strategies |
| Bioproducts | | | |
| 1904 | P29 | Dr. Sheetal Kishor Parakh / India | From Food Waste to Single-Cell Microalgae Protein |
| 2021 | P30 | Mr. Wei Fang / China | A Novel Strategy for Waste Activated Sludge Treatment: Recovery of Structural Extracellular Polymeric Substances and Fermentative Production of Volatile Fatty Acids |

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| 1909 | P31 | Mr. Prashant Kumar / India | Revolutionizing Astaxanthin-Rich Microalgae Harvesting with A High-Efficiency Fe@Urea Nanocomposite |
| 1203 | P32 | Miss Henna Mohi Ud Din Wani / India | Unleashing the Power of Arthrospira platensis: Bioactive Peptides for Antioxidant Benefits |
| 703 | P33 | Dr. Ayon Tarafdar / India | Preparation, Characterization and Application of Spent Hen Meat Hydrolysate Powder |
| 611 | P34 | Miss Poonam Kumari / India | Biorefinery-Enabled Synthesis of Mcl-PHAs Using Rhodospseudomonas Palustris: Environmental Sustainability Assessment |
| 2411 | P35 | Miss Ruiqi Gan / China | Study on Synthesis of PHA from Wastewater with High COD |
| 2409 | P36 | Mr. Liu Song / China | Study of the Effect of Substrate Structure on the Enrichment of A High-Load PHA-Producing Bacterial Colony Reactor |
| Thermal Treatment and Biochar- Production and Applications for Environmental Applications | | | |
| 3008 | P37 | Mr. Weijian Xu / China | Using Waste to Improve the Weak Recycled Seashell as an Ideal Way to Regulate the ITZ in Biochar-Cement Composite |
| 3009 | P38 | Miss Siqin Li / China | Effective Acceleration of Photocatalytic Degradation of Sulfamethoxazole by Layered Double Hydroxide@petrochemical Sludge Biochar |
| 3011 | P39 | Mr. Xinyu Jiang / China | Cold-bonded Biochar-cement Lightweight Aggregates for Evaporation-enhanced Permeable Bricks |
| 3012 | P40 | Mr. Jingyi Liang / China | Bond Strength and Cracking Behavior of Biochar-Cementitious Material from Cement to Mortar |
| 3016 | P41 | Mr. Muduo Li / China | A Multi-Phase Mechanical Model of Biochar–Cement Composites at the Mesoscale |
| 3014 | P42 | Dr. Izharul Haq / India | Thermodynamic Assessment and Biochar Yield from Pyrolysis of Different Biomass in a Fixed Bed Reactor |
| 3017 | P43 | Miss Yuying Zhang / China | Roles of Wood Waste Biochar in Enhancing Chloride Resistance and Promoting Carbon Neutrality in Construction Materials |
| 505 | P44 | Miss Tsang Hiu Man / Hong Kong | The Potential of Utilizing Food Waste Digestate Derived Hydrochar and Process Water as Organic Fertilizer |
| 3010 | P45 | Miss Wenxin Fu / China | Practical Pathways to Carbon Neutrality and Improved Production for Biochar-Based Agriculture |
| 3005 | P46 | Dr. Dengmiao Cheng / China | Effects of Biochars on Photodegradation Behavior of Typical Antibiotics on the Surface Soil Layer |
| 3022 | P47 | Miss Blessy Silvester/ India | Adsorption Characteristics of Vancomycin from Aqueous Solution Using Cassava Industrial Waste Residue Biochar |
| Synthesis of Catalysts and New Functional Materials | | | |
| 1304 | P48 | Miss Wang Peixin / China | Strontium Niobate as a Recyclable Catalyst for Efficient Dehydration of Fructose into 5-Hydroxymethylfurfural |
| 803 | P49 | Mr. Zihao Wang / China | Synthesis of Functional Multi-Walled Carbon Nanotube-Based Composites and Their Photocatalytic Conversion of Glucose into Lactic Acid |
| 3208 | P50 | Mr. Mian Laiq Ur Rehman / Pakistan | Insights into the Catalytic Mechanism of MoO ₂ /MoS ₂ @NC Heterostructure Catalyst for the Selective Oxidation Of 5-Hydroxymethylfurfural (HMF) into 2,5-Diformylfuran (DFF) |
| 3210 | P51 | Mr. Ruilong Zhang / China | Highly Efficient and Selective Conversion of HMF to DFF over Low-Valent MoS ₂ @Cu ₂ O Hybrid Catalysts |
| 1903 | P52 | Dr. Muhammad Idrees / Pakistan | Additive Manufacturing of Grid Reservoir-Integrated Anodes for Dendrite-free, Safe, and Ultra-Low Voltage Zinc-Ion Batteries |
| 1907 | P53 | Mr. Li Chengjian / China | In-Situ Generation of Iron Activated Percarbonate for Sustainable Sludge Dewatering |
| 1524 | P54 | Dr. Puranjan Mishra / India | Exploration of Ni/Fe ₂ O ₃ Nanocatalyst on Biological Hydrogen Production from Bakery Waste |
| 2202 | P55 | Dr. Li Zeng / China | Pulmonary Effect of 2D MXenes in Mice Immune Cell Responses and Disrupted Hematopoiesis |
| 1906 | P56 | Dr. Wei Sun / China | Enhanced Production of Fe(II) and Fe(0) by Elemental Sulfur Modification on Iron Oxide to Boost Peroxymonosulfate Activation for Pollutants Removal |
| Environmental Bioremediation | | | |
| 2205 | P57 | Miss Shruti Darshan Sharma / India | Microbial Community Profiles of Polluted Surface Water Receiving Effluent from Nearby Cetp and its Co-Occurrence with Persistent Mobile Chemicals and Heavy Metals |
| 2206 | P58 | Dr. Jitendra Kumar Saini / India | Efficient Degradation of Emerging Phenolic Pollutant Bisphenol A by Laccase of Trametes Cubensis |
| 2503 | P59 | Mrs. Yamini Javvadi / India | Fate of Antibiotic Resistance Genes in a Tri-Phasic Engineered Wetland System |
| 2303 | P60 | Dr. Jolanta Warchol / Poland | Mechanism of Chromium Sorption onto Lignocellulosic Biomass |
| 101 | P61 | Dr. Lizhu Yuan / China | Influence of C14 Alkane Stress on Cd and Nutrient Elements Uptake by Four Potential Petroleum Hydrocarbon Remediation Plants |
| 3019 | P62 | Dr. Wei Zhang / China | Study on the Performance and Mechanism of Honeycomb N-rich Biochar Loaded with Ni/Fe Bimetallic Nanoparticles for the Activation of PS Degrading Naphthalene |
| Biological Waste Treatment | | | |
| 2406 | P63 | Miss Yingxue Sun / China | Fe ³⁺ Addition for Enhancing the Formation and Stability of Aerobic Granular Sludge to Treat Low-strength Wastewater |
| 2003 | P64 | Dr. Xingyu Chen / China | Re-Granulation And Performance of Anaerobically Digested Bacterial And Algal-Bacterial Aerobic Granular Sludge |
| 2028 | P65 | Mr. Jianxiong Jian / China | Nitrogen Removal and Sludge Characteristics in Recirculating Aquaculture Wastewater via Anammox and Denitrification |
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