

ICBS 2026

The 4th International Conference on Bioprocess and Sustainability



June 22–23, 2026



Hong Kong



Preface

On behalf of the International Society of Bioprocess and Sustainability (ISBS), I am delighted to extend a warm welcome to all participants of the 4th International Conference on Bioprocess and Sustainability (ICBS2026). This event will be held from June 22-23, 2026, at City University of Hong Kong, Hong Kong SAR, China. We are excited to have you with us for this significant occasion, which promises to be an extraordinary convergence of individuals committed to advancing biotechnology and sustainability.

The ISBS was founded with the aim of nurturing talents in the realms of biotechnology and sustainability. Our organization is dedicated to promoting the exchange of innovative technical knowledge and equipping skilled professionals who can meet the dynamic demands of the industry. We strive to make a meaningful impact on the development of waste and wastewater reclamation practices that foster a circular economy, not just in Japan and Asia, but on a global scale. This flagship conference series, ICBS, provides a vital platform for experts across various disciplines to share their most important research outcomes and engage in insightful discussions regarding the future of sustainable practices. Throughout the upcoming days, you will have the chance to listen to prominent researchers, engage in stimulating sessions, and discover innovative solutions that can address the human resource gaps faced by both academia and industry.

I would like to express my sincere appreciation to our co-organizers and sponsors, whose invaluable support has made this conference a reality. To all attendees, thank you for your presence and your commitment to the pursuit of knowledge and innovation. Your participation enhances our discussions and contributes to our shared goal of achieving a more sustainable future. I encourage you to fully engage with the diverse programs we have organized, which will offer unique perspectives on the practical applications of our discussions. Lastly, I want to acknowledge the hard work of our teams at City University of Hong Kong, University of Tsukuba, and other partner institutions. This conference would not have been possible without your dedication and effort.

Once again, welcome, and I hope you enjoy the conference!



A stylized handwritten signature in black ink, appearing to read 'DJL'.

Duu-Jong Lee

President, International Society of Bioprocess and Sustainability (ISBS)

22nd June 2026

Schedule

21 June (Sun) 2026	Registration
22 June (Mon) - 23 June (Tue) 2026	Conference dates
24 June (Wed) - 26 June (Fri) 2026	Technical visit (subject to prior registration due to limited availability)
27 June (Sat) 2026	Field trip (Optional)

Organizers

City University of Hong Kong

JC STEM Lab of Circular Bio-economy, City University of Hong Kong

International Society of Bioprocess and Sustainability (ISBS)

Co-organizers

University of Tsukuba

Tsinghua Shenzhen International Graduate School

Guangdong University of Technology

Organizing Committee

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Co-chair: Dr. Lin, Carol Sze Ki: Professor, City University of Hong Kong

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International Conference on Bioprocess and Sustainability 2026 (ICBS2026)
June 22-23, 2026
City University of Hong Kong

Time (HKT)	June 21st, 2026 (Sun.)
14:00 – 18:00	Onsite Registration (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)
Time (HKT)	June 22nd, 2026 (Mon.)
8:00 – 8:30	Onsite Registration (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)
8:30 – 9:30	Opening Ceremony (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)
8:30 – 9:00	Opening Remark Prof. Duu-Jong Lee, President of ISBS, City University of Hong Kong Prof Yong Yang, Head, Department of Mechanical Engineering, City University of Hong Kong Dr. Jiafu Tang, Secretary of CPC Group, Shanghai Municipal Bureau of Ecology and Environment Plenary Speech Prof. Duu-Jong Lee, Director of JC STEM Lab of Circular Bioeconomy, City University of Hong Kong
9:00 – 9:30	Group Photo and Coffee Break

9:30	–	12:00	Plenary Session Chairs: Prof. Pinjing He (Tongji University) and Prof. Fengting Li (Tongji University) (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)		
9:30	–	10:00	Microalgae Assisted Membrane Bioreactors for Fouling Control Prof. Huu Hao Ngo, University of Technology Sydney		
10:00	–	10:30	On Critical Issues Toward Carbon-Neutral Municipal Wastewater Treatment Prof. Yu Liu, Nankai University		
10:30	–	11:00	Advancing Anaerobic Dynamic Membrane Bioreactors for Enhanced Bioenergy and Resource Recovery: From Mechanisms to Applications Prof. Zhiwei Wang, Tongji University		
11:00	–	11:30	Advanced Physiochemical + Biological Processes for Mitigation of Unwanted Organic Matters Prof. J. Paul Chen, Shenzhen University		
11:30	–	12:00	Circular Biorefinery of Food and Yard Waste for the Production of Sustainable Chemicals, Materials and Fuels Prof. Carol Sze Ki Lin, City University of Hong Kong		
12:00	–	13:00	Lunch (City Express (5/F, Bank of China (Hong Kong) Complex) & Faculty Lounge (Invited guests only, 9/F, Bank of China (Hong Kong) Complex))		
13:00	–	14:00	Poster Session 1 (Purple Zone C, 4/F, Yeung Kin Man Academic Building)		
14:00	–	15:35	Keynote Speech & Oral Presentation (Main Hall LT18) Topic: Biological waste/wastewater treatment	Keynote Speech & Oral Presentation (Classroom P4701) Topic: Biological waste/wastewater treatment	Keynote Speech & Oral Presentation (Classroom P4703) Topic: Bioenergy and resource recovery

	Chairs: Prof. Shao-Yuan (Ben) Leu (The Hong Kong Polytechnic University) and Prof. Caixia Ellen Wan (University of Missouri)	Chairs: Prof. Hongbo Liu (Shanghai University of Science and Technology) and Prof. Weiwei Huang (Hainan University)	Chairs: Prof. Yuhu Zhang (Capital Normal University) and Prof. Qian Xiao (Tongji University)
14:00 – 14:25	Energy-efficient Approaches to Water Treatment Prof. Qiang Fu, University of Technology Sydney	Anaerobic Digestion Performance and Microbial Response Mechanisms under High Salinity Stress Prof. Yueqin Tang, Sichuan University	Mechano-Photocatalytic Biorefinery: Advanced Porous Carbon Catalysts from Biomass Prof. Juan Carlos Colmenares Quintero, Polish Academy of Sciences
14:25 – 14:50	Process-Control-Guided Sequencing Fractionation Improves Monolignol Recovery from Food-Processing Lignocellulosic Biomass Prof. Shao-Yuan (Ben) Leu, The Hong Kong Polytechnic University	Enhanced methane production from waste activated sludge: Calibrated ADM1-guided optimization and mechanistic insights Prof. Yongmei Li, Tongji University	Mechanistic Insight into Enhanced Florfenicol Degradation by Micro-nano Bubbles Ozonation in Mariculture Wastewater Prof. Chaoxiang Liu, Fuzhou University
14:50 – 15:05	O-A-14 Vermicomposting: A Green Solution for Food Waste Resource and Sustainable Agriculture Dr. Fatima Hamed, Tongji University	O-A-27 Fe(III) Dosage Regulates Microbial Synergy and Carbon-Nitrogen Co-removal in Anaerobic Digestion-Feammox-Denitrification Systems Treating Aquaculture Wastewater Prof. Weiwei Huang, Hainan University	Preliminary Study on Methane Emission Characteristics and Emission Reduction Pathways of Urban Sewage Treatment System in Shanghai Dr. Jie Dai, Shanghai Academy of Environmental Sciences
15:05 – 15:20	O-A-31 Unraveling Sulfur Biotransformation in Coal Gangue Co-composting: Insights from $\delta^{34}\text{S}$ Isotope Fingerprinting and Metagenomics Prof. Jun Yang, Chinese Academy of Sciences	O-D-96 Immobilization of Pb and Cd in Contaminated Soil with Composite of Phosphate, Bentonite and Calcium Hydroxide Prof. Weihua Cui, China University of Geosciences (Beijing)	O-B-32 Iron Nanoparticles-Confined Graphene Oxide Membranes Coupled with Sulfite-Based Advanced Reduction Processes for Ultrafast and Stable Removal of Bromate Prof. Qian Xiao, Tongji University

15:20 – 15:35	O-A-36 Redox-active conductive carrier with superior wettability governs direct electron transfer and steady-state evolution in anaerobic process Dr. Junli Tian, Nankai University	O-A-12 Decoupling Functional Selection Pressures via Return Sludge Fermentation for Energy-Efficient Shortcut Nitrogen and Phosphorus Removal Dr. Feiyi Yuan, Tongji University	O-B-40 Synergistic Catalysis for Sustainable Biodiesel Production from Biomass Platform Compounds: Combining Solid Acid Catalysts with Commercial Hydrogenation Metals Dr. Peng Zheng, Southeast University
15:35 – 15:50	Coffee Break		
15:50 – 17:00	Special Session in Honor of Prof. Pinjing He (Main Hall LT18) Chair: Prof. Fan Lyu, Tongji University	Keynote Speech & Oral Presentation (Classroom P4701) Topic: Biological waste/wastewater treatment Chairs: Prof. Dongsheng Wang (Zhejiang University) and Prof. Feng Xiao (North China Electric Power University)	Keynote Speech & Oral Presentation (Classroom P4703) Topic: Biological waste/wastewater treatment Chairs: Prof. Zhongfang Lei (University of Tsukuba) and Prof. Lin Lin, (Tsinghua University)
15:50 – 16:15	Career & Academic Legacy	Process-dependent transformation behaviors and conserved reaction networks in a full-scale textile dyeing wastewater treatment train Prof. Li Li, Guangdong University of Technology	Phosphorus Recovery from Municipal Wastewater Targeting Battery-Grade Iron Phosphate Prof. Lin Lin, Tsinghua University
16:15 – 16:30	Tributes from Mentees	O-A-44 Green and Efficient Disinfection of Antibiotic-Resistant Bacteria via PI/H ₂ O ₂ Homogeneous System Dr. Boaiqi Zhang, China University of Geosciences (Beijing)	O-A-61 A Comparative Experimental Study of Different Water Treatment Bio-carriers in Recirculating Aquaculture Systems for Enhanced Nitrogen Removal Dr. Yankai Zhao, University of Tsukuba
16:30 – 16:45	Tributes from Peers & Collaborators	O-A-16 Effects of Industrial Wastewater Effluents on Irrigation Water Quality Around Bompai Industrial Area of Kano State Nigeria Dr. Abdulrahman Babangida Hussaini, Tongji University	O-A-13 Real-Time Hyperspectral Video Monitoring of Biological Waste and Wastewater Treatment Using Edge Computing Mr. Andy Luo, Beijing Visen Innovation Technology Co., Ltd.

16:45 – 17:00	Awarding Ceremony	O-A-84 Elucidation of the Effects of Trace Copper on Nitrifying Microbial Communities Mr. Mitsuki Hayashi, Shibaura Institute of Technology	O-A-77 Synergistic Mechanism underlying N ₂ O Mitigation in ABGS Systems Driven by Chlamydomonas reinhardtii Mr. Yuqi Liu, South China Institute of Environmental Sciences, Ministry of Ecology and Environment
17:00 – 18:00	Plenary Session Chair: Prof. Huu Hao Ngo (University of Technology Sydney) and Prof. Yu Liu (Nankai University) (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)		
17:00 – 17:30	Digestate to Dinner: Microalgae-Driven Single-Cell Protein for the Urban Bioeconomy Prof. Yen Wah Tong, National University of Singapore		
17:30 – 18:00	Red Mud Valorization: From Waste Management to Metal Resource Recovery in the Circular Economy Prof. Fengting Li, Tongji University		
18:00 – 18:40	Internal ISBS Meeting (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)		
19:00 – 21:00	Banquet (City Chinese Restaurant, 8/F, Bank of China (Hong Kong) Complex)		

June 23rd, 2026 (Tue.)				
8:00 – 08:30	Onsite Registration (LT18, 4/F, Yeung Kin Man Academic Building)			
8:30 – 9:00	Plenary Session Chair: Prof. Zhongfang Lei (University of Tsukuba) (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)			
8:30 – 9:00	Aerobic Sludge Granulation for Efficient Biological Wastewater Treatment - Experimental Study, Process Modeling and Pilot Test Prof. Xiao-yan Li, Tsinghua University, The University of Hong Kong			
9:00 – 10:35	Keynote Speech & Oral Presentation (Main Hall LT18) Topic: Biomass-based agriculture and bioeconomy creation & Biological waste/wastewater treatment Chairs: Prof. Chaoxiang Liu (Fuzhou University) and Prof. Bing Li (Tsinghua University)	Keynote Speech & Oral Presentation (Classroom P4701) Topic: Bioenergy and resource recovery Chairs: Prof. Yueqin Tang (Sichuan University) and Prof. Fan Lyu (Tongji University)	Keynote Speech & Oral Presentation (Classroom P4703) Topic: Bioenergy and resource recovery Chairs: Prof. Yasuhisa Adachi (University of Tsukuba) and Prof. Wenli Huang (Nankai University)	
9:00 – 9:25	A New Generation of Biofertilizers: Trichoderma-Driven Bioactivation of Organic Matrices Prof. Fabrizio Adani, University of Milan	Early Prediction of Volatile Fatty Acids Concentration Using Microbial Electrochemical Sensor and Machine Learning Prof. Suyun Xu, Shanghai University of Science and Technology	Exploration of the Control and Resource Utilization Pathways of Enteromorpha Prof. Hongbo Liu, Shanghai University of Science and Technology	
9:25 – 9:50	From Agricultural Waste to Soil Solutions: Sustainable Conversion and Economic Viability Prof. Ling Zhao, Shanghai Jiao Tong University	Integrated Valorization of Food Waste Digestate: From Carbon Materials Engineering to Selective Nutrient Recovery Prof. Qiyong Xu, Peking University Shenzhen Graduate School	From High-Purity Al ₁₃ to Adaptive Coagulation: Resolving the Trade-Off Between Purity and Species Selectivity Prof. Dongsheng Wang, Zhejiang University	

9:50 – 10:05	O-N-54 Potential Impacts on Aquatic Environments of Organic Fertilizer Produced from Granular Sludge via Hydrothermal Treatment Ms. Rammuni Dilini Vasundara Kumari Silva, University of Tsukuba	O-B-26 Cascade Valorization of Furcellaria lumbricalis Processing Residues Using Green Extraction Strategies Mr. Loveille Jun, Sapienza University of Rome	O-B-73 Highly Selective Hydrodeoxygenation of Furfural to 2-Methylfuran over Cu–Nb/Al-MCM-41 under Mild Conditions Dr. Wuyu Wang, Southeast University
10:05 – 10:20	O-B-85 Redirecting Dissolved Organic Matter Transformation during Anaerobic Digestion via External Electric Field-Driven Microbial Network Succession Mr. Bo Zhou, Tongji University	O-B-30 Enhanced 2,3-Butanediol Bioproduction via isFBB and Catalytic Upgradation to 1,3-Dioxolane: A Route to SAF Building Blocks Mr. Ziyao Liu, City University of Hong Kong	O-B-8 Syngas Production from Pyrolysis Catalytic Steam Reforming of Plastic Wastes over Char Catalysts Dr. Yukun Li, Tsinghua University
10:20 – 10:35	O-C-21 Dynamic Steering of H* Spatiotemporal Matching Strategy Boosts Selective Electrocatalytic Hydrogenation of Phenol to Cyclohexanone Dr. Chen Cheng, Tongji University	O-O-57 Integrating Receptor-Molecule Interaction Refines Odor Prediction Dr. Jun Zhan, Tongji University	O-B-91 Predict Flocculation and Sedimentation in High-Turbidity Water Based on Multimodal Physical-informed Constraints Mr. Yejie Shen, Tongji University
10:35 – 10:50	Coffee Break		
10:50 – 12:00	Keynote Speech & Oral Presentation (Main Hall LT18) Topic: Biological waste/wastewater treatment Chairs: Prof. Hua Zhang (Tongji University) and Prof. Ling Zhao (Shanghai Jiao Tong University)	Keynote Speech & Oral Presentation (Classroom P4701) Topic: Microalgal-bacterial consortium and its advancements Chairs: Prof. Suyun Xu (Shanghai University of Science and Technology) and Prof. Sang-Hyoun Kim (Yonsei University)	Keynote Speech & Oral Presentation (Classroom P4703) Topic: Greenhouse gases emission/mitigation and carbon/nitrogen neutrality Chairs: Prof. Xiaojing Zhang (Zhengzhou University of Light Industry Institution) and Prof. Yi Zhang (Fudan University)

10:50 – 11:15	Influence of Discharge Standards on Water-Energy-Carbon Nexus of Wastewater Treatment Plants Prof. Hongtao Wang, Tongji University	Sedimentation and Flowing Behavior of Flocculated Slurry in Dilute and Semi-Dilute Regime Prof. Yasuhisa Adachi, University of Tsukuba	Rethink the GHG Emission of Anaerobic Digestion Prof. Fan Lyu, Tongji University
11:15 – 11:30	O-A-83 Effects of Trace Amounts of Antibiotics on a Biofilm-based Nitrification Reactor Mr. Takahito Yojima, Shibaura Institute of Technology	O-M-18 Deciphering Microalgal Response Mechanisms to High Ammonium-Nitrogen Stress Mr. Enzhe Yang, Sichuan University	O-L-63 Biochar Preparation and Carbon Sequestration and Emission Reduction Technologies in Paddy Fields Prof. Yuhu Zhang, Capital Normal University
11:30 – 11:45	O-A-93 Impact of Temperature on Nitrogen Transformation and Community Structure in a Hybrid Membrane-Aerated Biofilm Reactor for Treating Coking Wastewater Dr. Wentao Zhu, Tongji University	O-M-62 Research on the Microbial Synergistic Mechanism in the ABGS System under Ciprofloxacin Antibiotic Stress Dr. Wei Xiong, Nankai University	O-L-72 Assessment of Greenhouse Gas Emission Reduction Benefits of Rice Biochar Returning to the Field Based on Life Cycle Assessment Ms. Fuhui Sun, Capital Normal University
11:45 – 12:00	O-A-87 The Urban-Regional Synergistic Model for Food Waste Treatment via Black Soldier Fly Larvae: A Quantitative Assessment of Carbon Reduction Benefits Based on Life Cycle Assessment Dr. Guangyu Cui, Peking University Shenzhen Graduate School	O-M-86 Quorum Sensing Signal Molecules Regulate the Microbial-Algae Membrane Aeration Biofilm for Nutrients and Sulfadiazine Removal: Community Response and ARGs Transfer Ms. Lulu Ma, Tongji University	O-L-55 Quantifying the Spatiotemporal Characteristics and Regionally Heterogeneous Drivers of Synergistic Pollutant-Carbon Control in China's Municipal Wastewater Treatment Plants Ms. Yatang Jin, Tongji University
12:00 – 13:00	Lunch (City Express (5/F, Bank of China (Hong Kong) Complex) & Faculty Lounge (Invited guests only, 9/F, Bank of China (Hong Kong) Complex))		
13:00 – 14:00	Poster Session 2 (Purple Zone C, 4/F, Yeung Kin Man Academic Building)		

14:00 – 15:45	Keynote Speech & Oral Presentation (Main Hall LT18) Topic: Biomass reclamation and recycling & Bioenergy and resource recovery Chairs: Prof. Yongmei Li (Tongji University) and Prof. Qiang Fu (University of Technology Sydney)	Keynote Speech & Oral Presentation (Classroom P4701) Topic: Sustainable management and analysis & Other related topics Chairs: Prof. Qiyong Xu (Peking University Shenzhen Graduate School) and Prof. Hongtao Wang (Tongji University)	Keynote Speech & Oral Presentation (Classroom P4703) Topic: Biological waste/wastewater treatment & Biosystem and bioassay Chairs: Prof. Juan Carlos Colmenares Quintero (Polish Academy of Sciences) and Prof. Xiaoyuan Zhang (Nankai University)
14:00 – 14:25	Advances in Sustainable Bioprocess Systems for Waste Carbon Conversion Prof. Caixia Ellen Wan, University of Missouri	Nondestructive Spectroscopic and Optical Techniques Combined with Machine Learning for Solid Waste Identification: A Review Prof. Hua Zhang, Tongji University	Microbial Risks Triggered by Oral Administration of Antibiotics in Fish Aquaculture Persist Long After the Legally Mandated Antibiotic Withdrawal Time Prof. Bing Li, Tsinghua University
14:25 – 14:50	Solvent-free Recovery of Polyhydroxyalkanoates (PHA) from Mixed Microbial Cultures (MMCs), and Cost and Scalability Analysis Prof. Yi Zhang, Fudan University	Simultaneous Recovery of Phosphorus and Organic Acids from Organic Waste via Vivianite Formation Prof. Sang-Hyoun Kim, Yonsei University	Apparent DOC Loss Underestimates Source-Dependent Autochthonous DOM Turnover under Intense Summer Irradiation in an Urban River Prof. Feng Xiao, North China Electric Power University
14:50 – 15:05 or 14:50 – 15:15	O-E-58 Deciphering the Formation Mechanism of Non-biodegradable Microplastics during Bioplastic Degradation in Aerobic Environment Ms. Yaxin Xu, Tongji University	O-A-17 Advanced Nitrogen Removal and PFASs Transformation in the SAD/A System Treating Municipal Secondary Effluent Prof. Xiaojing Zhang, Zhengzhou University of Light Industry Institution	Redox-active conductive carrier enables direct electron transfer for efficient methanogenesis in anaerobic biofilms Prof. Xiaoyuan Zhang, Nankai University

15:15 – 15:30	O-A-103 Genomic Insights into Cellulose Anaerobic Digestion of CEPT Sludge for Net Energy Recovery Dr. Huichuan Zhuang, The Hong Kong Polytechnic University	O-A-104 Uncovering Batch-to-Batch Heterogeneity in Dewatered Food Waste Digestate: Seasonal Physicochemical Variation and Heavy-Metal Profiles with Implications for Resource Recovery Mr. Ze Zhuang, The Hong Kong Polytechnic University	O-A-97 Steering Microbial Succession via a Transient Influent Carbon Pulse Towards Rapid Assembly of Halotolerant Algal-Bacterial Granular Sludge for Robust Nitrogen Removal from Saline Carbon-Limited Mariculture Wastewater Dr. Qian Wang, Ocean University of China
15:30 – 15:45	O-O-25 Sustainable Valorization of Composite Agricultural Residues for the Rapid Cultivation of <i>Pleurotus ostreatus</i> Mycelium Bioleather Ms. Mohana Priya Shankar, Indian Institute of Technology		O-C-67 Catalytic Wet Air Oxidation of Municipal Sludge for Simultaneous Carbon Recovery and Nitrogen Removal Dr. Kaiyu Fang, Tongji University
15:45 – 16:00	Coffee Break		
16:00 – 16:45	Closing ceremony (LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building)		
Time (HKT)	June 24-27, 2026		
8:00 – 20:00	Field survey		

Session Guidelines

1. Oral Presentation Guidelines

Time Allocation:

- **Plenary Speech:** 30 minutes (25-minute presentation + 5-minute Q&A)
- **Keynote Speech:** 25 minutes (20-minute presentation + 5-minute Q&A)
- **Oral Presentation:** 15 minutes (12-minute presentation + 3-minute Q&A)

Important Notes:

- Please upload and test your presentation slides at least 15 minutes before the session begins.
- To ensure the conference runs smoothly and on schedule, all speakers are kindly requested to strictly follow the allocated time slots.

2. Poster Presentation Guidelines

- Poster presenters are requested to prepare their posters using the official Poster Template. Please refer to the conference program for your assigned Poster ID.
- Posters should be printed in A0 size (841 mm × 1189 mm) and brought to the conference venue for display.
- Posters must be set up before the designated Poster Session and removed by the end of the session. Any posters left after the removal deadline will be discarded.

Poster Sessions & Exhibition Schedule

Time: 13:00-14:00, 22-23 June 2026

Venue: Purple Zone C, 4/F, Yeung Kin Man Academic Building

Theme I: Biological waste/wastewater treatment

P-A-7 Selective Phosphate Recovery from Real Digestate by Waste-Derived LDH/Biochar MCDI: Linking Separation Performance with Fouling Dynamics

○Yuxin Qu, Qiyong Xu*

Peking University Shenzhen Graduate School

P-A-9 Optimization of hydrogen fermentation conditions using cow manure and waste milk

○Toshihiko Otsuka^{1*}, Eisuke Kawamura², Ryozi Noguchi^{3*}

Toyo university

P-A-24 Bimetallic oxides with package structure for enhanced degradation of bisphenol a through peroxymonosulfate activation

○Jiabin Dan, Qiongfang Wang*

Tongji University

P-A-37 N₂O Emission from Algal-bacterial Granular Sludge Systems Fed with Different Volatile Fatty Acid Species

○Yunqiang Fan, Zhichen Li, Thi Hang Ho, Yuan Tao, Zhongfang Lei*, Tian Yuan, Motoo Utsumi

University of Tsukuba

P-A-39 Size-dependent Nitrous Oxide Emissions from Algal–bacterial Granular Sludge under Anaerobic and Aerobic Conditions

○Zhichen Li, Yuan Tao, Yunqiang Fan, Zhongfang Lei*, Tian Yuan, Motoo Utsumi

University of Tsukuba

P-A-41 Advanced Stratified Biofilm Carriers for Anammox Processes: Design, Functionalization, and Microbial Synergies

○Ruiqi Liu, Tian Yuan*, Baoqi Gao, Zhenya Zhang*

University of Tsukuba

P-A-46 Rapid Functionalization of Granular Sludge via Granulation of Broken Aerobic Granular Sludge with Microalgae Suspension

○Yuan Tao, Yunqiang Fan, Tian Yuan, Motoo Utsumi, Zhongfang Lei*

University of Tsukuba

P-A-47 Impact of Intermittent Aeration on Nitrogen and Phosphorus removal in Algal-bacterial Granular Sludge

○Thi Hang Ho, Ziyin Ai, Yunqiang Fan, Jian Dong, Zhichen Li, Tian Yuan, Motoo Utsumi, Zhongfang Lei*

University of Tsukuba

P-A-48 Effects of Salinity on Freshwater Algal-bacterial Granular Sludge: Ion-specific Stress

○Liwen Cao, Zhongfang Lei*, Tian Yuan, Motoo Utsumi

University of Tsukuba

P-A-52 Evaluation of a 10 L-Scale High-solid Fermentation System for High-Efficiency Biogas Production from Cattle Manure and Lignocellulosic Waste

○Yanfei Cheng^{1*}, Akio Shoji², Zhuoqi Xu¹, Yugo Arisaka¹, Ayako Tawara¹, Zhenya Zhang^{2,3}, Tian Yuan³

Oriental Shiraishi Corporation

P-A-59 Feasibility and Challenges of Microalgae-based Technologies for Microplastic Removal from Wastewater

○Vimala Aroune, Yuechong Fan, Tian Yuan, Helmut Yabar, Zhongfang Lei*
University of Tsukuba

P-A-70 Magnetic Co-N-C Catalyst for Ultrafast Non-Radical Activation of Peroxymonosulfate toward Efficient Antibiotic Wastewater Treatment

○Ziying Wu^{1,2}, Fengting Li^{1,2*}
Tongji University

P-A-71 Differential EPS Production of Filamentous Prokaryotic and Eukaryotic Algae under Temperature and Ammonium Stress

○Zhuo Xie, Tian Yuan*, Zhongfang Lei, Zhenya Zhang*
University of Tsukuba

P-A-79 Role of the Extracellular Polymeric Matrix in the Size-Dependent Mechanical Strength of Aerobic Granular Sludge under Aeration Stress

Zhihao Chen, Yixuan Bian, Dongfang Liu, ○Wenli Huang*
Nankai University

P-A-82 Seasonal Stability of Bacterial and Algal-bacterial Granular Sludge under Summer-Winter-Summer Disturbances

○Sizhou Liang, Zhongfang Lei*
University of Tsukuba

P-A-83 Unveiling the Enhanced Performance and Fouling Mitigation in an Algal-bacterial Granular Sludge-membrane Bioreactor for Liquor Wastewater Treatment

Ziwen Zhao¹, Lan Tang^{2*}, Ziyang Zhang¹, ○Yuqi Liu¹, Kaiqi Li^{1,3}, Qijin Luo¹, Jingshi Li¹
South China Institute of Environmental Sciences, Ministry of Ecology and Environment

Theme II: Bioenergy and resource recovery

P-B-81 High Resolution Analysis of Phosphorus Speciation and Functionality of Algal-bacterial Granular Sludge

○Xinyu Lyu, Xi Zhao, Han Shao, Zhongfang Lei*, Tian Yuan, Motoo Utsumi
University of Tsukuba

Theme III: Biomass reclamation and recycling

P-C-20 Scalable and Green Synthesis of MOF/Carbon Composites from Agricultural Waste for CO₂/CH₄ and CO₂/N₂ Separation

○Zhiheng Lu, Yihui Ding, Fengting Li*
Tongji University

P-C-69 Recovery of Bioactive Polysaccharides from Food Waste through Plant Ash-Modulated Enzymatic Hydrolysis: A Circular Bioeconomy Approach

○Lei An, Zhiqiang Wang, Xiaoyuan Zhang*, Yu Liu*
Nankai University

Theme IV: Sustainable management and analysis

P-E-78 Toward Agentic Intelligence: Foundations, Architectures, and Challenges of Autonomous AI Systems

○Qirui Zhou¹, Chenhao Tian², Zhiyuan Jin^{1,2}, Yilin Zhang¹, Junhao Jin¹, Dongsheng Wang^{1*}
Zhejiang University

Theme V: Greenhouse gases emission/mitigation and carbon/nitrogen neutrality

P-L-65 Carbon Footprint Accounting and Analysis in the Operation Stage of Multi-campus Universities: A Case Study of University A in Beijing

○Xinyi Zhang, Fuhui Sun, Huili Bao, Yuhu Zhang*
Capital Normal University

P-L-90 Crop-Soil-Environment Benefits of Equivalent Carbon Input from Organic Amendments in Rice Production Ecosystems

○Xian Xiao*, Yuan Zhao, Baohua Tu, Wenyi Zhang
Changzhou University

Theme VI: Microalgal-bacterial consortium and its advancements

P-M-19 Algal-Mediated miR-7 Suppression via STTM Technology for Sustainable *Aedes aegypti* population Control

○Jianping Cao, Lin Ling*
Southeast University

P-M-34 Phosphorus Accumulation and System Performance Recoverability of Algal-bacterial Granular Sludge after Experiencing Low-light Stress

○Sicheng Zhang, Yihao Huang, Jian Dong, Tian Yuan, Motoo Utsumi, Zhongfang Lei*
University of Tsukuba

P-M-53 Low-intensity Intermittent Artificial Aeration Sustains Granular Stability with Efficient Nitrogen Removal in Continuous-flow Algal-bacterial Granular Sludge-based Recirculating Aquaculture System

○Jian Dong, Wenjun Liu, Ziyin Ai, Sicheng Zhang, Tian Yuan, Motoo Utsumi, Zhongfang Lei*
University of Tsukuba

Theme VII: Other related topics

P-O-7 Application of Dark Septate Endophytes for Improving Heat Stress Tolerance in Plant Cultivation

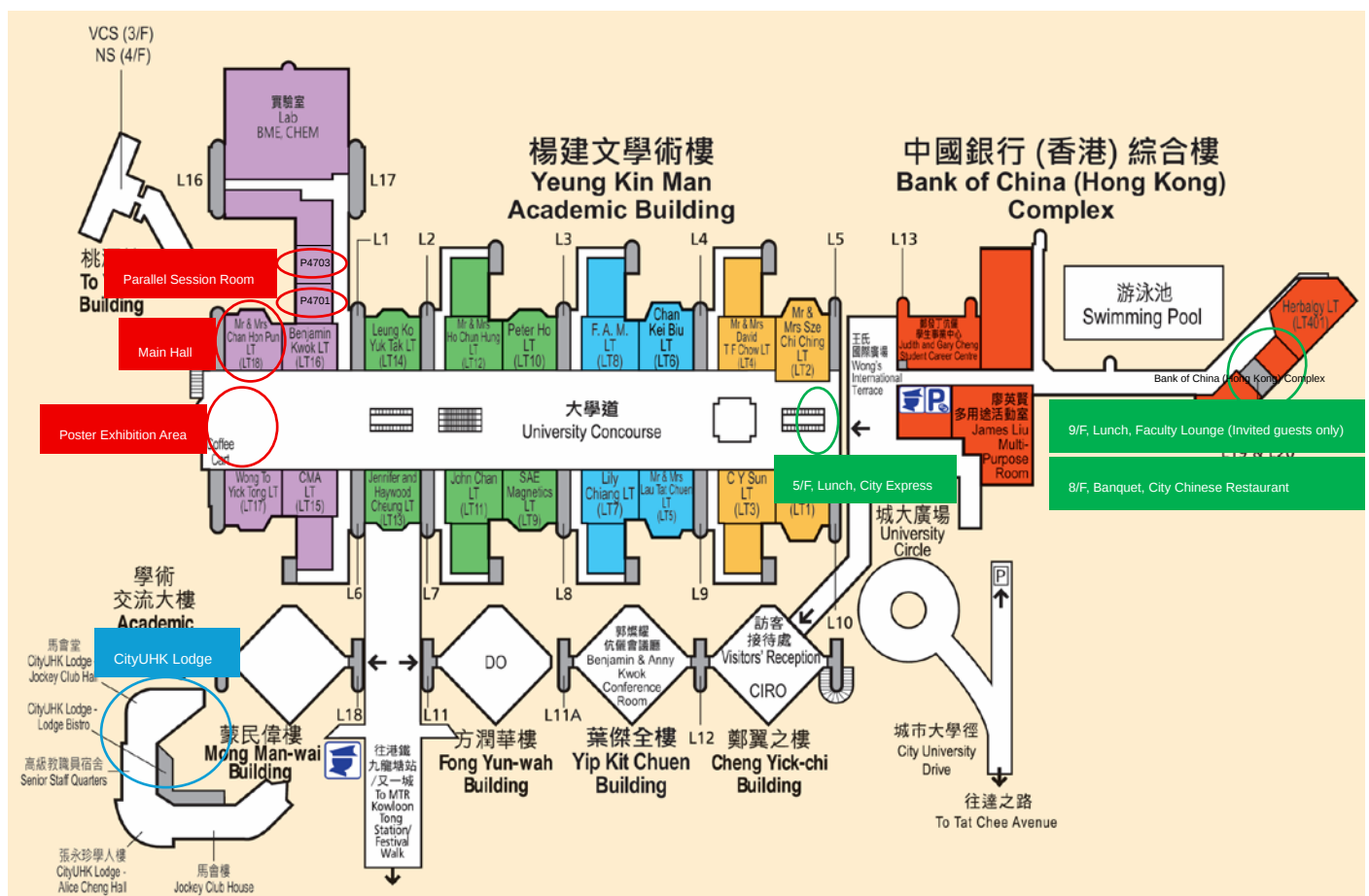
○Jing Xu, Mijung Kim*, Chikako Okabe
Technology Development & International Business Development Division, Endophyte Inc.

General information

Conference Venue:

Location: City University of Hong Kong (CityUHK)

- * The Opening/Closing Ceremony will be held in LT18, Purple Zone, 4/F, Yeung Kin Man Academic Building
- * The Panel Sessions will be held in P4701 and P4703, Purple Zone, 4/F, Yeung Kin Man Academic Building
- * The Poster Sessions will be held in Purple Zone C, 4/F, Yeung Kin Man Academic Building.



About CityUHK

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Campus Access:

To enter the CityUHK campus, a visitor QR code is required at the security gates. All pre-registered participants will receive a personal visitor QR code from CityUHK by email before the conference. Please check your email and scan the QR code at the campus security gates for entry.

Lunch and Banquet arrangement:

	Jun 22	Jun 23
Lunch	① City Express (5/F, Bank of China (Hong Kong) Complex) ② Faculty Lounge (Invited guests only, 9/F, Bank of China (Hong Kong) Complex)	① City Express (5/F, Bank of China (Hong Kong) Complex) ② Faculty Lounge (Invited guests only, 9/F, Bank of China (Hong Kong) Complex)
Banquet	City Chinese Restaurant (8/F, Bank of China (Hong Kong) Complex)	/

Accommodation Recommendations:

1. CityUHK Lodge (on-campus):

- Address: Academic Exchange Building, 81 Tat Chee Avenue, Kowloon, Hong Kong.
- Room rates:
Standard Queen Room (Single HK\$920 / Double HK\$1,020 per night)
Superior Queen Room (Single HK\$980 / Double HK\$1,080 per night)
- Booking link: [CityUHK Lodge](#)
- Location/Directions: <https://www.lodge.cityu.edu.hk/about-us/location>
- Note: Rooms are subject to availability, so early booking is recommended.

2. Royal Plaza Hotel (Located at Mong Kok East Station, which is only one MTR station away from the CityU campus (Kowloon Tong Station)):

- Booking link: <https://www.royalplaza.com.hk/>

Technical Visit Schedule:

Registration for the technical visit has now closed.

The detailed schedule is as follows:

22-23 June (Mon, Tue)	8:00-18:00 ◦ International Conference on Bioprocess and Sustainability (ICBS2026) After conference ◦ Move to Shenzhen city by high-speed train	Hong Kong Supported by City University of Hong Kong, Hong Kong SAR, China Address: City University of Hong Kong, 83 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong SAR, China ☎ +852-5376 0866
24 June (Wed)	9:00-20:00 ◦ BGI Genomics ◦ Honghu Water Purification Plant ◦ Futian CBD	Shenzhen Supported by Tsinghua Shenzhen International Graduate School Address: Tsinghua Shenzhen International Graduate School, No. 2279, Lishui Road, Nanshan District, Shenzhen, Guangdong, China. ☎ +0755-2691 0448
25 June (Thu)	9:00-20:00 ◦ Huawei Songshan Lake Town ◦ Shenzhen Bay Talent Park ◦ Forum on ecological and sustainable development	Recommended hotel: Vienna International Hotel, No. 4038, Xilihu Road, Nanshan District, Shenzhen (https://hotel.bestwehotel.com/HotelDetail/?hotelId=WYN1481944&checkInDate=2026-05-08&checkOutDate=2026-05-09&extend=1,1,0,0,0,0)
26 June (Fri)	8:00-20:00 ◦ Move to Guangzhou city by high-speed train ◦ Haizhu Wetland ◦ Lijiao Wastewater Treatment Plant ◦ Canton Tower / Zhujiang New Town	Guangzhou Supported by Guangdong University of Technology Address: Guangdong University of Technology (Higher Education Mega Center Campus), No. 100, Waihuan West Road, Panyu District, Guangzhou, China ☎ +86- 17374318906 Recommended hotel: Aloft Guangzhou University Park No.66 Li De Street, Xiaoguwei, Panyu District, Guangzhou, Guangdong (https://www.marriott.com/reservation/rateListMenu.mi); search “Aloft” on this website; To enjoy the discounted rate, please book by phone and mention that you are attending ICBS2026) ☎ 020-31000888
27 June (Sat)	9:00-20:00 ◦ Joint Seminar at Guangdong University of Technology ◦ University town tour ◦ Donghaochong Museum ◦ Donghaochong deep-tunnel	



International Society of Bioprocess and Sustainability
国際バイオプロセス・サステイナビリティ学会