# Draft Programme

**Conference Registration: 2:00 to 9:00 pm, 08 June 2025 (Venue: Royal Garden Hotel, Dongguan)**

**Day 1: 09 June 2025 (Venue: Royal Garden Hotel, Dongguan)**

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| 0730-0900 | Registration | | | | | | | |
| 0900-0955 | Opening Ceremony (Venue: Royal Garden Hotel, Dongguan) | | | | | | | |
| 0900-0905 | Opening Remark: Prof. Jonathan Wong Conference Chair, Dongguan University of Technology | | | | | | | |
| 0905-0910 | Welcome Speech: Prof. Hongwei Ma, President, Dongguan University of Technology | | | | | | | |
| 0910-0925 | Opening Speech: Representative, Dongguan Municipal Government | | | | | | | |
| 0925-1000 | Group Photo and Coffee Break | | | | | | | |
| 1000-1200 | Keynote Session: Prof. Jonathan Wong, Conference Chair (China) | | | | | | | |
| 1000-1030 | Keynote Speech 1: A454/ Prof.Qirong Shen/ China/ Dual Enhancement of Thermostability and Activity of Xylanase through Computer-Aided Rational Design to Increase the Yield of Xylooligosaccharides from Corncob | | | | | | | |
| 1030-1100 | Keynote Speech 2: A461/ Prof.Raffaello Cossu/ Italy/ Lights and Shadows in Circular Economy Strategies and Practices | | | | | | | |
| 1100-1130 | Keynote Speech 3: Prof.Beidou Xi/ China/ Organic Solid Waste Resource Utilization and Pollution Reduction with Carbon Emission Synergy | | | | | | | |
| 1130-1200 | Keynote Speech 4: A549/ Prof.Jianhua Yan/China/ Thermal Conversion of Complex Organic Solid Waste and High-Value Utilization of Products | | | | | | | |
| 1200-1400 | Lunch (1200-1300) and Poster Viewing (1245-1400, Lobby) | | | | | | | |
| | Session A – Room: 1 | | Session A – Room:8 | | Session C – Room: 9 | | Session D – Room: Ballroom | |
| 1400-1530 | A1: Anaerobic Digestion | | B1: Bioenergy and Biofuel | | C1: AI application in Waste Treatment Technology | | D1: Sustainable Strategies | |
| | Chair: | | Chair: | | Chair: | | Chair: | |
| | Co-Chair: | | Co-Chair: | | Co-Chair | | Co-Chair: | |
| 1400-1425 | P1 | A160/ Dr.Yebo Li/ United States/ Rethinking Anaerobic Digestion for Bioenergy and Biopolymers Production: Challenges and Opportunities | P7 | A190/ Prof.Agamuthu Pariatamby/ Malaysia/ Bio Circular Economy in Sustainable Biomass Management | P13 | A458/ Prof.Qunxing Huang/ China/ AI Based Smart Control System for Efficient Waste Incineration Based on Novel On-line Detection Technologies | P19 | A339/ Prof.Rainer Stegmann/ Germany/ Transformation of Waste Management to Ecological Waste Management |
| 1425-1440 | I1 | A285/ Prof.Yanling Cheng/ China/ Innovative Early Warning and Enzymatic Optimization Strategies for High-Temperature Anaerobic Fermentation of Food Waste | I14 | Dr.Luo Liwen (TBC) | O61 | A282/ Dr.Jie Chen/ China/ A New Insight for CO2 Sequestration with Heavy Metal Immobilization by Calcium Recycling using Interpretative Machine Learning | I40 | A469/ Prof.Marco Ritzkowski/ Germany/ the Role of Landfilling in Climate Protection |
| 1440-1455 | I2 | A460/ Assoc. Prof. Suyun Xu/ China/ Process Optimization of $CO_2$ Injected Anaerobic Digestion System: Response Mechanism of Organic Loading Rate and Substrate Ratio Digester | O30 | A650/ Assoc. Prof. Jun Zhao/ China/ Development and Optimization of a ZnIn2S4/CuO-Based Photocatalytic System for Efficient HMF Oxidation to DFF in Aqueous Media | O62 | A452/ Mr.Sathieesh Sounderarajan/ India/ Machine Learning Approach for the Optimization of Biological Parameters for the Esterase Production from Trichoderma Harzianum and Hydromechanical Stress Study in a Shake Flask | O83 | A186/ Dr. Xianlai Zeng/ China/ Fostering the Waste Management with Environmental-Resource Interacting Attribute |
| 1455-1510 | O1 | A263/ Assoc. Prof.Le Zhang/ China/ Utilizing Magnetic Field to Enhance Methane Production from Anaerobic Digestion of Nitrogen-Rich Organic Wastes | O31 | A273/ Mr.Heedo Ryou/ South Korea/ Environmentally Friendly Production of Ethylene from Waste Plastic Pyrolysis Oil | O63 | A242/ Mr.Hualiang Li/ China/ Catalytic Pyrolysis of Polyolefin Plastics: Machine Learning-Driven Product Prediction and Process Optimization | O84 | A384/ Mrs.Cinthya Lara/ Germany/Enhancing Waste-to-Energy Knowledge Through Multilingual Micro-Lectures |
| 1510-1525 | O2 | A200/ Dr.Surendra KC/ United States/ Substrate-Specific Effects of Micro-Aeration on Anaerobic Digestion Performance | O32 | A108/ Dr.Manman Xu/ China/ Melaleuca Bark based Biochar for Rapid Removal of PFOA and High-Performance Supercapacitors | O64 | A411/ Dr. Minghao Jin/ China/ Mechanism of K/Na Removal from Sewage Sludge during Hydrothermal Treatment with Process Water Recirculation: Based on Machine Learning and Path Analysis | O85 | A403/ Mr.Rami Shahrabi/ Germany/ System Dynamics Approach to Optimize Extended Producer Responsibility Schemes for Integrated Waste Management |
| 1525-1550 | Coffee Break | | | | | | | |
| 1550-1750 | A2: Anaerobic Digestion | | B2: Bioenergy & Biofuel | | C2: Industrial Waste Management | | D2: Sustainable Strategies | |
| | Chair: | | Chair: | | Chair: | | Chair: | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair: | |
| 1550-1615 | P2 | A424/ Prof.Fan Lv/ China/ Scent of An Anaerobic Digester | P8 | A665/Prof. Guanyi Chen/China/Solid Waste Circulation and Conversion/Utilization Technology | P14 | A425/ Prof.Patrick Drogui/ Canada/ Eternal Pollutants – Per-and Polyfluoroalky Substances (PFAS): Which Problems? Which Treatments? So, Which Solutions for the Protection of Water Resources and Aquatic Ecosystem? | P20 | A456/ Prof. Lin Ma/ China/ Nutrient Recycling in Food Systems for Carbon Neutrality and Circular Economy in China |
| 1615-1630 | I3 | A316/ Prof.Guanyu Zheng/ China/ CaO2 Pre-treatment Improves the Elimination of Fecal Pollution Indicators in Municipal Sewage Sludge during Mesophilic Anaerobic Digestion: Effects and Mechanistic Insights | I15 | A495/ Prof.Sunita Varjani/ India/ Sustainable Management of Agricultural Waste: Biochar for Adsorbing Anthracene and Benzo[a]pyrene | I25 | A109/ Prof.Deepak Pant/ India/ Recycling Challenge and Sustainable Recycling of Lithium Ion Battery Waste | I41 | A322/ Dr.Ammaiyappan Selvam/ India/ Effect of C/N Ratio of Food Waste Anaerobic Digestate on Growth and Lipid Accumulation of Oleaginous Yeast Strain Cryptococcus Curvatus - 2698 |
| 1630-1645 | O3 | A494/ Prof.Abdel Hamied Mohamed Rasmey/ China/ Hydrogen Production from Anaerobic Digestion of Banana Peels Waste using A Ruminant Bacterial Consortium: Maximization and Application of Kinetic Models | O33 | A423/ Prof.Lisandra Meneses/ Estonia/ Simulation and Optimization of Bio-oil, Biochar, and Syngas Obtained from the Co-pyrolysis of Date Seeds and Tire Plastic Waste | O65 | A430/ Miss.Lu Peng/ China/ Remediation of PFAS Pollution in Groundwater using a Photo-Regenerable Composite of In-Doped TNTs@BC | O86 | A265/ Prof.Shunchang Yang/ China/ Recovery of Nutrient from Digested Cellulosic Ethanol Stillage and Carbon Sequasation Life Cycle Accessment |
| 1645-1700 | O4 | A264/ Dr.Xingyu Chen/ Hong Kong S.A.R., China/ Impact of Light-Induced Microaerobic Conditions on Enhancing Anaerobic Digestion of Algal-Bacterial Aerobic Granular Sludge | O34 | A256/ Dr.Armin Rezayan/ Hong Kong S.A.R., China/ Efficient Production of Bio-diol/triol Chemicals from 5-Hydroxymethylfurfural | O66 | A232/ Mr.Florian Feucht/ Austria/ Mapping Key Regions of Spent Refractory Generation Across Europe | O87 | A221/ Mr.Thomas Kremlicka/ Austria/ Fine Fractions in Waste Management – A Challenge and a Resource |
| 1700-1715 | O5 | A503/ Dr.Wei Peng/ China/ Advanced Hyperspectral Imaging for Monitoring of Biowaste Anaerobic Digestion | O35 | A300/ Dr.Dandan Dong/ South Korea/ Comparison of Pretreatment Efficiency between Ionic Liquid and Alkali for Fermentative Hydrogen Production from by Rice Husk | O67 | A465/ Dr.Qiuxia Zou/ China/ Industrial Solid Waste Management Systems: Model Development and Strategic Implementation from a Machine Learning Perspective | O88 | A548/ Dr. Qiong Nan/ China/ Achieving Carbon Neutrality through Fully Resource-Oriented Disposal of Municipal Solid Waste in China |
| 1715-1730 | O6 | A396/ Miss.Jingsai Ren/ China/ The Influence of PFAS on the Performance of the Coanaerobic Digestion Process of Sludge and Kitchen Waste and its Transformation Mechanism | I16 | A664/ Assoc. Prof. Tianwei Hao/ China/ Chemical–Free Electrochemical Pretreatment Coupled with Anaerobic Digestion for Volatile Fatty Acid Production from Sewage Sludge | O68 | A236/ Ms.Cornelia Rutkowski/ Austria/ Revealing Inconsistencies: Does the Lithium-Ion Battery Recycling Require Unified Analytical Approaches? | O89 | A420/ Mr.Yu Zhang/ China/ Combination of PFAS and Sludge EPS |
| 1730-1830 | Poster Viewing (1730-1830, Lobby) | | | | | | | |

| | Day 2: 10 June 2025 | | | | | | | |
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| 0800-0900 | Poster Viewing | | | | | | | |
| 0900-1035 | A3: Composting | | B3: Biochar | | C3: | | C3:大湾区可持续固废专场 - 粤港澳固废区域共治 共建无废湾区 Great Bay Area Sustainable Waste Management (Bilingual Interpretation Provided) | |
| | Chair: | | Chair: | | Chair: | | Chair: Zhanjun Quan | |
| | Co-Chair: | | Co-Chair: | | Co-Chair | | Co-Chair: Zhiyong Tian | |
| 0900-0915 | I4 | A431/ Prof.Xuan Wang/ China/ Microbial Electrochemical Composting: A Sustainable Strategy to Enhance Lignocellulose Conversion into Humus | I17 | A349/ Dr.Mukesh Kumar AWASTHI/ China/ Biochar Regulating Humification of Livestock Manure Composting and its Improvement on Soil Quality | | NO PRESENTATION IN THIS SESSION | 0900-0940 | Opening Ceremony 开幕式<br>Opening Remarks by the Leader 领导致辞<br>Prof.Beidou Xi/ President of the Chinese Research Academy of Environmental Sciences 席北斗/中国环境科学研究院<br>TBD:Led by the Department of Science Department of Solids, Ministry of Ecology and Environment of the People's Republic of China.待 定 生态环境部固体司领导<br>Xiaoxia Xu/ the Department of Ecology and Environment of Guangdong 徐晓霞/广东省生态环境厅厅领导<br>Shuxian Huang/ Led by Environment and Ecology Bureau of the Government of the Hong Kong Special 黄淑娴/ 香港特别行政区环境及生态局<br>TBD/ Led by Environmental Protection Services Directorate,Macao Special Administrative Region 待定/澳门特别行政区环境保护局<br>TBD/Leader of Dongguan City 待定/ 东莞市人民政府 |
| 0915-0930 | O7 | A283/ Mr.Xiaofeng Liang/ China/ Biochar Reduced Nitrogen Leaching during Digestate Field Application by Inhibiting Nitrification and Enhancing Nitrate Conversion | O36 | A432/ Dr.Subhojit Bhowmick/ India/ Application of Hydrochar Derived from Sugar Mill Press Mud via Hydrothermal Pretreatment as an Economical Adsorbent for Methylene Blue Removal | | | | |
| 0930-0945 | O8 | A237/ Dr.Dongyi Li/ China/ Multi-Strategy Approach for Enhancing Low C/N Ratio Composting of Food Waste Digestate | O37 | A408/ Dr.Sri Shalini Sathyanarayanan/ Thailand/ Production of Biochar from Green Waste and Coconut Husk for Soil Amendment and Environmental Pollution Control | | | 0940-10.00 | Launched the initiative to strengthen the in-depth cooperation of the "Waste-free Bay Area" and the launching ceremony of the Guangdong-Hong Kong-Macao Greater Bay Area Solid Waste Innovation Alliance 发起加强"无废湾区"深度合作倡议暨粤港澳大湾区固废创新同盟启动仪式 |
| 0945-1000 | O9 | A225/ Mr.Zelong Liu/ Australia/ Mitigating Emissions in Poultry Litter Composting: Lignite Granules as a Dual-Function Solution for Odour and Nitrogen Retention | O38 | A281/ Mr.Hongyu Feng/ China/ Carbide Slag-Assisted Pyrolysis of Sewage Sludge for Bioavailable Phosphorus-Rich Biochar Production | | | 10.00-10:15 | Group Photo 专场合影 |
| 1000-1015 | O10 | A324/ Mr.M Arun Kumar/ India/ Approaches to Enhance Municipal Solid Waste Compost Quality by using Different Type of Inoculums through Decentralized Composting | O39 | A198/ Mr.Tong Luo/ China/ N, S co-doping Enteromorpha Prolifera Biochar for Removal of Enrofloxacin from Aqueous Solution: Effects and Mechanisms | | | | |
| 1015-1045 | Group Photo and Coffee Break | | | | | | | |
| 1055-1125 | Keynote Speech 5: A415/ Prof.William Clarke/ Australia/ the Composition of Residual MSW if Waste Reduction and Diversion Targets are Met | | | | | | | |
| 1125-1155 | Keynote Speech 6: Prof.Yong Chen/ China/ Advancing New Quality Productive Forces in the Environmental Sector of the Guangdong-Hong Kong-Macao Greater Bay Area | | | | | | | |
| 1155-1225 | Keynote Speech 7: A535/ Prof. Jonathan Wong/ Hong Kong S.A.R., China/ Biocircular Economy for Sustainable Biomass Waste Management in Greater Bay Area | | | | | | | |
| 1225-1255 | Keynote Speech 8: A596/ Prof.Deli Chen/ Australia/ Recovery of nitrogen from livestock waste for use as high-value fertilisers | | | | | | | |
| 1255-1400 | Lunch (1255-1330) and Poster Viewing (1330-1400, Lobby) | | | | | | | |
| 1400-1510 | A4: Composting | | B4:Biochar | | C4: Circular Economy | | Topic 1: Policy Standards for Solid Waste Management | |
| | Chair: | | Chair: | | Chair: | | Chair: Yi Huang | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair: Gong Cheng | |
| 1400-1415 | P3 | A287/ Prof.Ji Li/ China/ Sustainable Transition of China's Organic Fertilizer Industry: Resource Potential, Historical Evolution, Current Challenges, and Future Pathways | P9 | A195/ Prof.Weixiang Wu/ China/ Long-term Effect of Biochar Incorporation on Carbon Emissions Reduction in Paddy Soil | P15 | A421/ Prof.Duu-Jong Lee/ Hong Kong S.A.R., China/ Challenges and Potential in the Circular Bioeconomy Framework and Implementation | 1400-1415 | Prof.Qifei Huang/ China/ Discussion on the Construction of Standard System for the Prevention and Control of Hazardous Waste pollution 危险废物污染防治标准体系建设探讨 |
| 1415-1430 | I5 | A473/ Prof.Qing Chen/ China/ Phosphorus Mobilization Mediated by Organic Carbon Stability: Comparing Manure Amendment and Straw Incorporation | I18 | A217/ Prof.Qiyong Xu/ China/ Biochar Production and Application from Food Waste Digestate: A Pathway to Circular Economy | I26 | A317/ Prof.Murugesan Kumarasamy/ India/ Resource Recovery and Circular Economy from Poultry Waste in India | 1415-1430 | Prof.Mingyang Zhang/ China/The Strategic Path of Collaborative Co-Construction of Zero-Waste Cities and Zero-Waste Bay Areas in Guangdong Province 广东省全域无废城市与无废湾区协同共建策略路径 |
| 1430-1445 | I6 | A410/ Dr.B. Ravindran/ South Korea/ Influence of Hydrated Lime Co-additives on Nitrogen Conservation during Livestock Waste Composting | I19 | A258/ Prof.Lei Wang/ China/ Recycling Biochar into Climate-Positive Functional Composites | I27 | A459/ Dr.Loh Soh Kheang/ Malaysia/ Technology Innovation of Oil Palm Biomass for Circular Economy Adoption | 1430-1445 | Prof.Nengwu Zhu/ China/ QiFei Huang/ Solid and Hazardous Waste Recycling and Zero-Waste City Construction 固危废循环利用与无废城市建设 |
| 1445-1500 | O11 | A512/ Dr. Clayton Butterly/ Australia/ Lignite Stabilises Nitrogen and Phosphorus in Broiler Litter: Critical to A Circular Waste Economy | O40 | A290/ Mr.Kassé Jean Hugues Angbé/ Germany/ Harnessing Cocoa Waste for Biochar Production and Emission Reduction to Promote Sustainability in West Africa | O69 | A191/ Dr.Dhundi Raj Pathak/ Nepal/ Exploring Organic Waste Recovery for a Circular Economy and Climate Mitigation: Insights from Municipalities in Nepal | 1445-1500 | Prof.Yi Zhang/ China/Regional Practice of "Zero-Waste Bay Area", A Typical City in the Greater Bay Area: A case study of Shenzhen 大湾区典型城市"无废湾区"区域实践-以深圳市为例 |
| 1500-1515 | O12 | A450/ Dr.Brendon Costello/ Australia/ Disentangling the Nitrogen Retention Potential of Australian Lignite: The Effect of Water Activity and Humic Acids on Nitrogen Dynamics in Broiler Litter | O41 | A187/ MissMonika Raczkiewicz/ Poland/ Boosting Sewage Sludge Safety with Nano-Biochar for Polycyclic Aromatic Hydrocarbons Immobilization and Ecotoxicity Reduction | O70 | A447/ Dr.Loan Nguyen/ Vietnam/ Challenges and Opportunities to Approach Circular Economy for Municipal Solid Waste Management in Ho Chi Minh City | 1500-1515 | Hong Kong Solid Waste Management Policy 香港固体废物管理政策<br>TBD Hong Kong Environmental Protection Department 待定 香港环境保护署 |
| | | | | | | | 1515-1530 | Prof.Qingbin Song/ Macao/ Towards a Sustainable Waste Management City – Macao's Experiences and Challenges 迈向可持续废物管理城市-澳门的经验和挑战 |
| 1515-1535 | Coffee Break | | | | | | | |

| 1535-1645 | A5: Food Waste | | B5: Biochar | | C5: Innovative and Emerging Technologies | | Topic 2 Transformation of technological achievements in the field of solid waste | |
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| | Chair: | | Chair: | | Chair: | | Chair: Lian Liu | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair: Ming Chang | |
| 1535-1550 | P4 | A407/ Prof. Katia Lasaridi/ Greece/ Beyond the Bin: the Importance and Pathways to Success in Preventing Food Waste | P10 | A196/ Prof.Hailong Wang/ China/ Biochar: A Sustainable Solution for Waste Management and Carbon Neutrality in a Circular Economy | P16 | A298/ Prof.Roger Ruan/ United States/ Integrated Biological and Thermochemical Approaches for Emerging Contaminant Management (ONLINE) | 15:35-17:05 圆桌会议 | Mr.Zhiwei Zhan/ Bureau Ecology and Environment of Dongguan City 詹志薇/ 东莞市生态环境局<br>Mr.Zongshuang Wang/Chinese Research Academy of Environmental Sciences 王宗爽/ 中国环境科学研究院<br>Mr.Nengwu Zhu/ South China University of Technology 朱能武/ 华南理工大学<br>Mr.Yongzhan Li/ Hunan Fortune Technology Co., Ltd 李永战/ 湖南福尔程科技股份有限公司<br>Mr.Jingheng Zhong/ Norrick Innovation Technology Services (Dongguan) Co., Ltd 钟敬恒/ 诺睿创新科技服务（东莞）有限公司<br>Mrs.Grace Kwok/ Allied Sustainability and Environmental Consultants Group Limited 郭美珩/ 沛然环保顾问有限公司 |
| 1550-1605 | I7 | A222/ Prof.Konstadinos Abeliotis /Greece /Evaluating the Environmental Footprint of Household Food Waste in Greece | I20 | A338/ Assoc.Prof.Anthony Lau/ Canada/ Effects of Biochar Derived from the Catalytic Pyrolysis of Solid Digestate on the Anaerobic Digestion of Manure | I28 | A428/ Prof.Kai Zhang/ Germany/ Sustainable Soft Materials | | |
| 1605-1620 | I8 | A165/ Prof.Sze Ki Carol Lin /Hong Kong S.A.R., China/ Zero-Waste Close-Loop Biorefinery System for Food and Yard Waste Valorization | I21 | A449/Assoc.Prof.Zongsu Wei/ Denmark/ Adsorption and Thermal Degradation of PFAS by Regenerable Waste Derived Biochar | O71 | A231/ Miss.Lulu Deng/ China/ Screening Strategy based on Green Solvents for Efficiently Recover and Faster Depolymerization of Polyethylene Terephthalate | | |
| 1620-1635 | I9 | A235/ Prof.Binghua Yan/ China/ Gas-Mediated Carbon Flux Redirection in Two-Phase Digestion: Achieving Carbon-Negative Energy Recovery from Urban Food Waste | O42 | A157/ Dr.Maadeswaran Palanisamy/ India/ Biowaste Pistachio Shell Derived Activated Carbon Loaded NiBi2O4 to Enhance Photocatalytic Performance for Clean and Affordable Environmental Remediations | O72 | A311/ Ms.Yanting Chen/ China/ Reactive Oxygen Species (ROS)-Mediated Conversion of Organic Matter into Humus: A Meta-Analysis on Mechanisms and Environmental Implications | | |
| 1635-1650 | O13 | A205/ Mr.Idris Hoppie/ Malaysia/ Drivers of Waste Generation in the Supply Chain of Malaysia's Food Production Industry: Motivations & Challenges | O43 | A159/ Dr.Liangcheng Yang/ United States/ Biofuel Production from Cover Crop Residue | O73 | A216/ Mr.Yu Mao/ China/ Effects of Organic Matters on the Crystallization Kinetic of Vivianite for Phosphorus Recovery from Sludge Supernatant | | |
| 1650-1705 | O14 | A194/ Ms.Bristi Khatun/ Malaysia/ Mechanisms of Nitrogen Dynamics: Nitrification and Denitrification in Food Waste-Derived Amendments Versus Conventional Fertilizers for Butternut Squash | O44 | A164/ Prof.Patryk Oleszczuk/ Poland/ Biochar Solutions for Safer Agricultural use of Sewage Sludge | O74 | A275/ Mr.Jongil Bae/ South Korea/ Global Warming Potential Analysis of a Perovskite Solar Cell Hydrometallurgical Recycling Process | | |
| 1705-1830 | Poster Viewing (1705-1830, Lobby) | | | | | | | |
| 1900-2200 | Banquet Dinner: Ballroom Royal Garden Hotel, Dongguan | | | | | | | |

| | Day 3: 11 June 2025 | | | | | | | |
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| 0800-0900 | Poster Viewing | | | | | | | |
| 0900-1035 | A6: Bioprocess | | B6:Bioplastic | | C6: Agricultural waste management 农业废弃物管理 （中国农业大学承办专场） (China Agricultural University Special Session: In Chinese only) | | Topic 3: New Technologies and Equipment for Recycling, Utilization, Treatment, and Disposal of Solid Waste① | |
| | Chair: | | Chair: | | Chair: | | Chair: Yonghong Wang | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair: Huanliang Lu | |
| 0900-0925 | P5 | A318/ Prof.Pratap Pullammanappallil/ United States/ Anaerobic Digestion of Harmful Algae Bloom Biomass (ONLINE) | P11 | A504/ Prof.Rajeshwar D. Tyagi/ Canada/ Process Development for Bioplastics Production using Wastes as Raw Materials | P17 | A541/ Prof.Guoxue Li/ China/ Progress and Challenges of Waste Resource Utilization Technology Model in China/ 中国有机废弃物资源化利用技术与模式 | 0900-0915 | Prof.Dunqiu Wang/ China/ Study on the Electron Transfer Mechanism of Water-Soluble Organic Matter in the Composting Process/ 堆肥过程水溶性有机物的电子转移机理研究 |
| 0925-0940 | I10 | Jialin Liang (TBC) | I22 | A453/ Prof.Luciana Porto de Souza Vandenberghe/ Brazil/ From Biomass to Bioplastics: Integrating Biorefineries into a Circular Economy | I29 | A523/ Prof.Hongsheng Cheng/ China/ Technology and Equipment for Fertilizer Utilization of Livestock and Poultry Manure/畜禽粪便肥料化利用技术与装备 | 0915-0930 | Prof.Lin Tang/ China/Artificial Intelligence Empowers the Research on the Resource Treatment of Organic Solid Waste/人工智能赋能有机固废资源化处理研究 |
| 0940-0955 | O15 | A467/ Prof. Peiwen Liu/ China/ Learning from Nature: Understanding and Reconstructing Bouligand Structures | O45 | A276/ Dr.Xiaolei Zhang/ China/ Regulating Volatile Fatty Acids Production from Kitchen Wastes Fermentation for Strengthening Polyhydroxyalkanoate Synthesis with Mixed Culture | I30 | A426/ Assoc.Prof.Jing Yuan/ China/ Model Construction and Application of Compost Maturity Prediction Based on Machine Learning/ 基于机器学习预测堆肥腐熟度的模型构建与应用 | 0930-0945 | Prof.Tianxue Yang/ China/ Solid Waste Utilization and Pollution Control Help the Construction of "Zero-Waste Cities" and the Coordinated Emission Reduction of Carbon Pollution/ 固废分质利用与污染控制助力"无废城市"建设和碳污协同减排 |
| 0955-1010 | O16 | A271/ Dr.Guilin Du/ China/ Valorization of Caragana Waste as Mycoprotein Feed: Two-Stage Bioaugmentation for Optimizing Nutrition Composition, Palatability, and Microbial Contaminant Control | O46 | A270/ Dr.Yuchen Zhang/ China/ Degradation-Conversion Mechanism in Thermophile-Driven Upcycling of Biodegradable Plastics into Polyhydroxyalkanoates | O75 | A312/ Miss.Liping Zhang/ China/ Microbial-Driven Sulfur Cycle in Biological Treatment of Organic Solid/ 微生物驱动的硫循环在有机固体废弃物生物处理中的应用 | 0945-1000 | Prof.Huanliang Lu/ China/Current Status and Utilization/Disposal Technologies of Secondary Aluminum Dross in Guangdong Province/ 广东省二次铝灰管理现状及利用处置技术 |
| 1010-1025 | O17 | A189/ Mr.Jun Deng/ China/ Cascading Fractionation of Sugarcane Bagasse via A Novel Bio-based Organic Amine Solvent Mediated Pretreatment without Liquid Waste Emission | O47 | A201/ Mr.Paul Demschar/ Austria/ From Waste to Resource - Recycling and Reuse of Valuable Materials from Shooting Ranges | O76 | A244/ Mr.Wenjie Chen/ China/ Changes of Bacterial Necromass and Their Roles in Humus Conversion during Organic Wastes Composting from Different Sources/ 有机堆肥中细菌坏死体动态与腐殖质转化机制 | 1000-1015 | Prof.Yulin Kang/ China/ Thinking on Regional Multi-Source Solid Waste Big Data and Recycling Path Optimization Technology/ 区域多源固废大数据与循环利用路径优化技术思考 |
| 1025-1050 | Coffee Break | | | | | | | |

| 1050-1200+B89:J107 | A7: Bioprocess | | B7: Plastic Waste Management | | C7: Agricultural waste management 农业废弃物管理 （中国农业大学承办专场）(China Agricultural University Special Session: In Chinese only) | | Topic 4: New Technologies and Equipment for Recycling, Utilization, Treatment, and Disposal of Solid Waste② | |
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| | Chair | | Chair: | | Chair: | | Chair:Ming Chang | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair:Jialin Yu | |
| 1050-1105 | I11 | A457/ Prof.Jun Zhou/ China/ Anaerobic Conversion of Low-Quality Biomass to Biogas: From Theory to Practice | I23 | A213/ Prof.Sandhya Babel/ Thailand/ Navigating Microplastics Contamination in Thailand's Environment - Issues and Challenges | I31 | A543/ Dr.Dawei Feng/ China/ Research on the Composting Process of Marine Biomass and Development of Soil Amendment Products/ 海洋生物堆肥过程研究及土壤改良产品开发 | 1050-1105 | TBC/ Hong Kong/ Hong Kong Low Carbon Approach to Decentralized Food Waste Pretreatment/ 香港分散式餐厨垃圾预处理的低碳方案 |
| 1105-1120 | O18 | A204/ Assoc.Prof.Jiayu Zhang/ China/ Microbial Function Discovery and Risk Identification in Wastewater Biotreatment Systems Based on Multi-omics Technologies | O48 | A406/ Mrs.Trang Hoang/ Vietnam/ Plastic Waste Stream and 3R Potentials in Shrimp Farming: A Case Study of Soc Trang Province, Vietnam | I32 | A520/ Dr.Wenhai Luo/ China/ An Integration of High-solid Anaerobic Digestion with Aerobic Composting for Rapid Resource Recovery from Organic Wastes: from Lab to Field/ 厌氧-好氧耦合发酵：从理论到装备 | 1105-1120 | TBC/ Hong Kong/ Return on Experience from Opark2 for HKSAR Government Project Delivery - Difficulties and Opportunities/ 怡和机器有限公司Opark2项目经验总结 |
| 1120-1135 | O19 | A257/ Dr. Xiaodong Xin/ China/ Synchronous Production of Bioethanol and Short-Chain Fatty Acids Associated with Microbial Mechanisms via the Short-Term Cultivation of Waste Molasses Inoculated with *Aspergillus Oryzae* | O49 | A409/ Dr.Trang Tran/ Vietnam/ Household Solid-Waste Generation Rate for Estimation of Climate Benefit of Recycling Plastic Bag usage in Ho Chi Minh City, Vietnam | I33 | A524/ Prof.Yanming Li/ China/ Promoting Effect of Ammonia Oxidation on Sulfur Oxidation during Composting: Nitrate as a Bridge/ 堆肥过程中氨氧化对硫氧化的促进作用：以硝酸盐为桥梁 | 1120-1135 | Prof.Haiwei Liu/ China/ Digital Transformation of Waste-to-Energy Plants and Cases of Black-Light factories/ 垃圾焚烧发电厂数字化转型及黑灯工厂案例 |
| 1135-1150 | O20 | A314/ Ms.Yahui Miao/ Hong Kong S.A.R., China/ Green and Sustainable Production of Biosurfactants using Waste Streams as Feedstocks | O50 | A434/ Dr.Truong Le/ Vietnam/ From Source to Sea: How Plastics Leak from Land and What Integrated Management Means in the Case of Duong Dong River, Vietnam | I34 | A500/ Prof.Zhi Xu/ China/ The Development Status of the Organic Fertilizer Industry in China, the Orocess of Humification during Composting and the Product Development of Functional Bio-Organic Fertilizer using Agricultural Waste/ 中国有机肥行业现状、堆肥腐殖化与 | 1135-1150 | Prof.Hanwei Zhang/ China/ Grandblue-Mode Empowers Zero-Waste-City — Pollution Reduction, Carbon Reduction, and Synergy/ "瀚蓝模式"助力"无废城市"——减污降碳协同增效 |
| 1150-1205 | O21 | A418/ Mr.Niyi Olukayode/ Nigeria /Scaling Up Microbial Fuel Cells for Municipal Solid Waste Treatment: Prospects, feasibility, and Critical Barriers | O51 | A162/ Mr.Chuanqi Shi/ China/ Plasma-driven Rapid Degradation of Microplastics | O77 | A306/ Miss.Yan Yang/ China/ Insights into the Role of Fungi in Variations of Antibiotics Resistance Genes during Facultative Composting/兼性堆肥过程真菌对抗生素抗性基因的驱动作用 | 1150-1205 | Prof.Yongzhan Li/ China/ In the Context of Pollution Reduction and Carbon Reduction, How can Solid Waste Enterprises Actively Transform through Scientific and Technological Innovation?/ 减污降碳背景下固废企业如何通过科技创新积极转型 |
| 1205-1220 | O22 | A438/ Miss.Xian Yang/ China/ Preparation of Lignin-based Nano Drug-Carrying Microcapsules from Sorghum Straw and Their Drug Release Characteristics | O52 | A334/ Dr. Pawena Limpiteeprakan/ Thailand/ Plastic Waste Management and Consumption Patterns in Ubon Ratchathani's Mekong River Region | O78 | A308/ Mr.Baoju Liu/ China/ Towards Data-driven Smart Composting Techniques and Control Systems/ 基于数据驱动的智能堆肥技术和控制系统 | 1205-1220 | Dr. Feng Luo/ China/ Exploration and Practice of Constructing Municipal Sludge Treatment System in Megacities: A case study of Dongguan City/ 构建特大城市市政污泥治理体系的探索实践——以东莞市为例 |
| 1220-1400 | Lunch (1220-1300) and Poster Viewing (1300-1400, Lobby) | | | | | | | |
| 1400-1510 | A8: Bioprocess | | B8: Thermal Technologies | | C8:Agricultural waste management 农业废弃物管理 （中国农业大学承办专场）(China Agricultural University Special Session: | | Topic 5: New Model of "Technology + Finance" for Solid Waste in the Greater Bay Area | |
| | Chair: | | Chair: | | Chair: | | Chair: Jonathan Wong | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair:Xingyi Yan | |
| 1400-1425 | P6 | Prof. Solange Mussatto (TBC) | P12 | A471 / Prof.Dezhen Chen/ China/ Wastes to Energy & fuels: Routes and Choice | P18 | A246/ Prof.Lixiang Zhou/ China/ Deciphering the Metabolic Pathway of Propionic Acid Fermented from Food Waste Mediated by Fungal Enzyme Additive through Metagenome Analysis/ 基于宏基因组解析真菌酶添加剂介导的餐厨垃圾发酵产丙酸的代谢途径 | 1400-1525 圆桌会议 | Dr. Pawan Pati/ Hong Kong /International Bank for Reconstruction and Development (IBRD) 国际复兴开发银行<br>Prof.Jun Ma/ Hong Kong/Hong Kong Green Finance Association 马骏/ 香港绿色金融协会<br>Prof.Qifeng Ma/ China/ China Development Bank 马琦峰/ 国家开发银行<br>Prof.Dennis Wu / Hong Kong / AEC Capital Group<br>TBC /Hong Kong/ Bank of China 中国银行<br>TBC /China/ Dongguan Rural Commercial Bank 东莞农业商业银行 |
| 1425-1440 | O23 | A385/ Assoc.Prof.Liang Zhang/ China/ Medium-Chain Fatty Acid Biosynthesis under High Ammonia Stress: Mechanisms and Process Optimization | O53 | A310/ Dr.Zhigang Que/ China/ Facilitating Oil Separation from Steel Rolling Oily Sludge via Hydrothermal Liquefaction | I35 | A431/ Prof. Xuan Wang/ China/ Microbial Electrochemical Composting: A Sustainable Strategy to Enhance Lignocellulose Conversion into Humus/ 微生物电化学堆肥：一种促进木质纤维素转化为腐殖质的可持续策略 | | |
| 1440-1455 | O24 | A468/ Dr.Ruey Shan Chen/ Malaysia/ Valorizing Rice Husk and Mixed Polyolefin Waste in Foamed Graphene-Reinforce | O54 | A294/ Prof.Leilei Dai/ China/ Catalytic Microwave-Assisted Pyrolysis of Waste Plastics for Valuable Chemicals | I36 | A566/ Dr. Chaohong Shi/ China/ The Complete Technology for High-Value Transformation and Utilization of Organic Solid Waste with Black Soldier Fly/ 黑水虻有机固体废弃物高值化转化利用配套技术 | | |
| 1455-1510 | O25 | A328/ Assoc.Prof.Sin Yee Gan/ Malaysia/ Sustainable Nanocellulose-Graphene Hybrid for High-Performance Phase Change Materials | O55 | A188/ Mr.Yunqing Zhou/ China/ In-situ Photoionization Mass Spectrometry for Elucidating Initial Pyrolysis Products of Polystyrene | O79 | A299/ Assoc.Prof.Zhicheng Xu/ China/ Role and Underlying Mechanisms of Oxygen to Activate Energy Metabolisms and Chemotactic Motility of Indigenous Bacteria for Effective Organic Biodegradation during Composting/好氧堆肥过程能量代谢和趋化性运动协同驱动有机质转化的作用机制 | | |
| 1510-1525 | O26 | A286/ Dr.Zhenye Tong/ China/ The New Strategies for High Efficiency Removal of Antibiotics and Antibiotic Resistance Genes by Direct Bio-Drying of Biogas Slurry: Microbiological Mechanisms | O56 | A202/ Mr.Cheng Hou/ China/ Molecular Insights into Heteroatom Compounds in Heavy Components of Bio-Oil from Microwave-Assisted Copyrolysis of Microalgae and Polyethylene | O80 | A304/ Dr.Yilin Kong/ China/ Deciphering the Phytotoxicity of Different Organic Waste in Composting by Linking Microbial Community Structure with Molecular Composition of Dissolved Organic Matter/ 微生物与溶解性有机质结合解析不同有机废弃物堆肥中的植物毒性 | | |
| | | | | | | | | |
| 1525-1540 | Coffee Break | | | | | | | |

| 1540-1645 | A9: Construction Waste | | B9: Thermal Technologies | | C9:Agricultural waste management<br>农业废弃物管理 （中国农业大学承办专场）<br>(China Agricultural University Special Session: In Chinese only) | | "Topic 6: A new green The Belt and Road model in the Greater Bay Area | |
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| | Chair: | | Chair: | | Chair: | | Chair:Louie, Kwok Keung Peter | |
| | Co-Chair: | | Co-Chair: | | Co-Chair: | | Co-Chair:Xu Liang | |
| 1540-1600 | I12 | A661/ Assoc.Prof.Jianli Hao/ China/ Key Drivers for Integrating Blockchain and Reverse Logistics in Transforming Construction Waste Management towards a Circular Economy | I24 | A210/ Dr.Suchithra Thangalazhy-Gopakumar/ Malaysia/ Hydrothermal Co-liquefaction of Palm Biomass with Plastics | I37 | A536/ Prof.Yan Xu/ China/ Optimization of the Proportion of Multi-component Rural Solid Wastes in Mixed Composting using a Simplex Centroid Design/<br>采用单纯形质心设计优化混合堆肥中多组分农村固体废弃物的比例 | 1540-1700 | TBC"The Belt and Road International Coalition for Green Development"<br>TBC"一带一路绿色发展国际联盟" |
| 1600-1615 | I13 | A455/ Assoc.Prof.Martin Anda/ Australia/ Database on Mine Tailings for Sustainable Concrete and Circular Economy Practices in SE Asia | O57 | A113/ Mr.Weichao Kong/ China/ Synthesis of Ca-Al Layered Double Oxides from Municipal Waste Incineration Fly Ash for Heavy Metal Removal | I38 | A542/ Prof.Qiuliang Yan/ China/ Current Status and Key Technologies in Province-wide Integrated Advancement of Livestock Manure Resource Utilization in Jilin Province/<br>吉林省全域统筹推进畜禽粪污资源化利用现状与主推技术 | | Dr.Guoshen Wen/ China/Cutting Global Solid Waste Emissions to Meet Paris Agreement and Methane Pledge Goals<br>全球固废减排路径与《巴黎协定》及《甲烷承诺目》的协同实现 |
| 1615-1630 | O27 | A224/ Mr.Martin Findl/ Austria/ Sustainable Use of Tunnel and Excavation Material with Sensor Based Classification | O58 | A271/ Miss.Yueting Zheng/ China/ Characteristics of Hydrothermal Treatment for Disintegration of Tylosin Fermentation Residue and Degradation of Residual Antibiotics | I39 | A522/ Dr.Longli Zhang/ China/ Development of Agricultural Waste Resource Utilization Equipment and Typical Application Cases/<br>农业废弃物资源化利用装备开发及典型应用案例 | | Dr.Ye Yuan/ China/From Global to Local: Net-Zero Solid Waste Architectural Innovation and Practice Based on Whole Life Cycle/全球视野下基于全生命周期的净零固废建筑思考 |
| 1630-1645 | O28 | A295/ Miss.Yaqian Shi/ China/ Hydrothermal Activation of Incinerated Sewage Sludge Ash for Sustainable Construction Blocks Preparation | O59 | A162/ Miss.Xiaoxiao Wang/ China/ The Pilot-Scale Experimental Study on High-Temperature Melting of Municipal Solid Waste Incineration Fly Ash | O81 | A323/ Dr.Xia Gao/ China/ Dynamics of Antibiotic Resistance Genes during Manure Composting: Reduction in Herbivores Manure and Accumulation in Carnivores/<br>粪便堆肥过程中抗生素抗性基因的动态变化：草食动物粪便的减少和食肉动物粪便的积累 | | Prof.Qiming Liang/ China/Topic 5: New Model of "Technology + Finance" for Solid Waste in the Greater Bay Area/中东和南美的发展机会 |
| 1645-1700 | O29 | A223/ Mrs.Bettina Ratz/ Austria/ Recycling of Austrian Mineral Waste in Alkali-Activated Construction Materials for A Circular Economy | O60 | A356/ Miss.Lulu Dong/ China/ Prediction of PCDD/Fs Emissions from Municipal Solid Waste Incineration with Small Samples Based on Data Dimensionality Reduction and Virtual Sample Generation | O82 | A325/ Dr.Ruonan Ma/ China/ Risk Assessment of Pathogen and Antimicrobial Resistance during Multi-material Co-composting: Role of Temperature and Moisture/<br>多物料协同堆肥过程中病原菌和抗菌素耐药性风险评估：温度和水分的作用 | | Prof.Jian Gao/ China/Strengthen the Overseas Dissemination of Chinese Experience to Support High-Quality Development of a Community with a Shared Future/加强中国经验海外传播，助力命运共同体高质量发展 |
| | | | | | | | | Prof.Mingtu Hao/ China/ Contributing to the Green Development of the Belt and Road Initiative，Supporting Chinese Enterprises' Global Expansion"/<br>服务共建"一带一路"绿色发展、助力中国企业"走出去" |
| 1700-1730 | Keynote Speech 9: A238/ Prof.Michael Nelles/ Gemany/ Biogenic Waste and Residues - Carbon Source, Bioenergy and Negative Emissions （ONLINE） | | | | | | | |
| 1730-1800 | Keynote Speech 10: A539/ Prof.Samir Kumar Khanal/ United States/ Advances in Anaerobic Digestion for Organic Waste Valorization | | | | | | | |
| 1800-1830 | Closing Session and Award Presentation (Prof. Jonathan Wong) | | | | | | | |