



International Symposium on
Advanced Bioprocessing Technologies for Biomass Waste Conversion
[ISABC-2024]

先进废弃生物质转化生物加工技术国际会议
会议手册

4-6 Dec 2024 | Dongguan, China
2024年12月4至6日 | 东莞市 中国

Sponsor



Organizer



Conference Chairs (大会主席)

Prof. Jonathan W.C.Wong,
 Dongguan University of Technology, China

Conference Co-Chairs (大会副主席)

Prof. Duu-Jong Lee,
 City University of Hong Kong

Prof. Dan Tsang,
 Hong Kong University of Science and Technology

Prof. Rajeshwar Dayal Tyagi,
 Dongguan University of Technology

Introduction for Dongguan University of Technology

东莞理工学院简介

Dongguan University of Technology (DGUT) is the only model university of novel high-level science and engineering jointly constructed by Guangdong Province and Dongguan City. It is the first public full-time regular university in Dongguan, and we are proud to have Dr. Chen-Ning Yang, a Nobel Laureate in Physics, leading us as our Honorary President. Work on establishing DGUT commenced in 1990 and it was finally approved in April 1992. DGUT was listed among the initial institutions for national "Outstanding Engineers Cultivation Project" and has risen to a level of being one among the "first-group" of local universities.

DGUT has established a unique discipline and major structure with engineering as the focus and coordinated development of management, literature, science, economics, law, education, and other disciplines. The university has 20 colleges, 59 undergraduate programs and 11 postgraduate programs. Fourteen programs have been selected in the first batch of national first-class programs. Fourteen programs have been selected as first-class programs in Guangdong Province.

DGUT has two campuses, in Songshan Lake and Guancheng, covering a total area of 351 acres (including 61 acres of international collaboration and innovation zone). There are approximately 20,000 full-time students in the university and about 120,000 students have been trained so far, with 95% of graduates worked or started their business in Dongguan. Since the recruitment of international students commenced in May 2016, a total of more than 400 international students from more than 40 countries have enrolled at DGUT.

东莞理工大学 (DGUT) 是广东省与东莞市共建的唯一一所新型高水平理工大学示范校，是东莞第一所公立全日制普通大学，诺贝尔物理学奖获得者杨振宁博士担任名誉校长。建立东莞理工的工作始于 1990 年，于 1992 年 4 月获得批准。DGUT 被列为国家“杰出工程师培养工程”首批院校之一，并已上升到地方大学“首批”之一的水平。

DGUT 建立了以工程为重点，管理、文学、科学、经济、法律、教育等学科协调发展的独特学科和专业结构。该大学有 20 个学院，59 个本科专业和 11 个研究生专业。14 个项目入选首批国家一级项目。14 个项目被选为广东省一级项目。

DGUT 有两个校区，分别位于松山湖和莞城，总占地面积 351 英亩（包括 61 英亩的国际合作与创新区）。该大学约有 2 万名全日制学生，迄今为止培养了 12 万名大学生，95% 的毕业生在东莞工作或创业。自 2016 年 5 月开始招收国际生以来，DGUT 共招收了来自 40 多个国家的 400 多名国际学生。

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PART ONE- CONFERENCE ORGANIZATION

一、会议组织

HONORARY CHAIRS OF THE CONFERENCE

大会荣誉主席

Prof. Qirong Shen, Academician, Chinese Academy of Engineering, Nanjing Agricultural University

沈其荣 中国工程院院士 南京农业大学教授

Prof. Hongwei Ma, Deputy Party Secretary, President, Dongguan University of Technology

马宏伟 东莞理工学院党委副书记、校长

Prof. Ashok Pandey, Chief Advisor of the Indian Biotechnology Research Association and the Indian Institute of Chemical Technology

Ashok Pandey 印度生物技术研究协会及印度化学技术研究所首席顾问

CONFERENCE CHAIR

大会主席

Prof. Jonathan W.C. Wong, Academician, European Academy of Sciences and Arts, Top Talent Professor, Dongguan University of Technology

黄焕忠 欧洲科学与艺术院院士，东莞理工学院顶尖人才教授

CONFERENCE CO-CHAIR

大会联合主席

Prof. Duu-Jong Lee, City University of Hong Kong 李笃中 香港城市大学教授

Prof. Dan Tsang, Hong Kong University of Science and Technology

曾超华 香港科技大学教授

Prof. Rajeshwar Dayal Tyagi, Academician, European Academy of Sciences and Arts, Dongguan University of Technology

Rajeshwar Dayal Tyagi 欧洲科学与艺术院院士 东莞理工学院特聘教授

ACADEMIC COMMITTEE 学术委员会

CHAIR 主席

Prof. Changping Li, Director, Scientific Research Department, Dongguan University of Technology

李长平 东莞理工学院“学科方向领军”岗位教授，科研部部长

COMMITTEE MEMBERS 委员

Prof. Lin Ma, Nanjing University 马林 南京大学教授

Prof. Guoxue Li, China Agricultural University 李国学 中国农业大学教授

Prof. Lixiang Zhou, Nanjing Agricultural University 周立祥 南京农业大学教授

Prof. Fan Lv, Tongji University 吕凡 同济大学教授

Prof. Huu Hao Ngo, Sydney University of Technology

Huu Hao Ngo 悉尼科技大学教授

Prof. Roger Ruan, University of Minnesota Roger Ruan 美国明尼苏达大学教授

Prof. Guanyu Zheng, Nanjing Agricultural University 郑冠宇 南京农业大学教授

Assoc. Prof. Jun Zhao, Hong Kong Baptist University 赵峻 香港浸会大学副教授

OPERATION COMMITTEE 组织委员会

CHAIR 主席

Prof. Yu Zheng, Dean of the School of Ecological Environment and Building Engineering, Dongguan University of Technology

郑愚 东莞理工学院学科方向领军特聘教授，生态环境与建筑工程学院院长

COMMITTEE MEMBERS 委员 (Arranging in No Particular Order 排名不分先后)

Assoc. Prof. Qiangqiang Rong, Vice-Dean of the School of Ecological Environment and Building Engineering, Dongguan University of Technology

荣钱钱 东莞理工学院副教授，生态环境与建筑工程学院副院长

Prof. Gui Chen, Vice-Dean of the School of Ecological Environment and Building Engineering, Dongguan University of Technology

陈贵 东莞理工学院教授，生态环境与建筑工程学院副院长

Prof. Haiming Huang, Dongguan University of Technology

黄海明 东莞理工学院教授

Prof. Zhen Yu, Dongguan University of Technology

余震 东莞理工学院教授

PART TWO- CONFERENCE PROGRAMME

二、会议日程



Conference Programme (As on 05/12/2024)

Day 1: 05 Dec 2024 (Venue: Dongguan University of Technology)

| | | |
|-------------|--|--|
| 08:30-09:00 | Registration | |
| 09:00-09:20 | Opening Ceremony (Room: Academic Conference Hall) MC: Assoc. Prof. Gan Sin Yee (颜杏倚) | |
| 09:00-09:05 | Opening Address: Academician Prof. Jonathan Woon Chung Wong (黄焕忠), Conference Chairman | |
| 09:05-09:15 | Welcome Address: Prof. Hongwei Ma (马宏伟), President, Dongguan University of Technology | |
| 09:15-09:20 | Welcome Address: Prof. Jishuang Chen (陈集双), Nanjing Tech University | |
| 09:20-09:50 | Photo Session and Coffee Break | |
| 09:50-11:50 | Keynote Session: Chair: Prof. Hélène Carrere Co-Chair: Prof. Guoyin Kai | |
| 09:50-10:20 | Opening Keynote Speech: A3546/ Prof. Qirong Shen (沈其荣)/ China/ An Innovation of Combined Prebiotics and Probiotics to Manipulate Soil Microbiome | |
| 10:20-10:50 | Keynote Speech 1: A3539/ Prof. Andrew Stephen Ball/ Australia/ Advances in Linking Microbial Ecology and Performance in Anaerobic Digesters | |
| 10:50-11:20 | Keynote Speech 2: A3543/ Prof. Duu-Jong Lee/ Taiwan China/ Machine-learning Technologies for Biochar Applications | |
| 11:20-11:50 | Keynote Speech 3: A3574/ Prof. Jonathan Woon Chung Wong/ Hong Kong China/ Innovative Biovalorization Technologies for Waste Biomass | |
| 11:50-14:00 | Lunch (Qiankunrun Songhu Hotel, No. 6, Libin Road, Songshan Lake District) & Poster viewing (13:15 to 14:00) | |
| | Session A–Room: Lecture Hall | Session B–Room: Multi-Function Hall |
| 14:00-16:25 | A1: Biorefinery and Bioprocess (English/英语) | B1: 中国生物工程学会专场/ Bioprocesses and Products Development (Chinese/中文) |

| | | | | |
|-------------|-----------------------------|---|--------------------------------------|--|
| | Chair: Prof. Su Shiung Lam | | Chair: Prof. Binghua Yan (颜丙花) | |
| | Co-Chair: Prof. Weifeng Liu | | Co-Chair: Assoc. Prof. Jun Zhao (赵峻) | |
| 14:00-14:25 | P1 | Plenary Lecture: A3552/ Prof. Korneel Rabaey/ Belgium/ Electrochemical in Situ Extraction Enables High Purity Product Recovery from Bioproduction | P3 | Plenary Lecture: A3547/ Prof. Lin Ma/ China/ Exploring Sustainable and Low-Carbon Food Systems in China: Challenges and Perspectives |
| 14:25-14:45 | I1 | Invited Lecture: A3563/ Prof. Guanyi Chen /China /Integration of biomass digestion and pyro-gasification: progress and challenges | I9 | Invited Lecture: A3550/ Prof. Guoyin Kai (开国银)/ China/ Molecular Regulation of Active Compound Biosynthesis in Medicinal Plant by Metabolic Engineering |
| 14:45-15:05 | I2 | Invited Lecture: A3536/ Dr. Khang Wei Tan/ Malaysia/ One-Pot Extraction of Nanocellulose from Raw Durian Husk Fiber Using Carboxylic Acid-Based Deep Eutectic Solvent with In Situ Ultrasound Assistance | I10 | Invited Lecture: A3545/ Prof. Jianwei Mao (毛建卫)/ China/ New Space for Functional Utilization of Biomass Resources and Plant Jiaosu Biological Fermentation Technology |
| 15:05-15:25 | I3 | Invited Lecture: A3569/ Prof. Kumarasamy Murugesan/ India/ Treatment of Coir Pith Waste Water and Recovery of Resource through Biogenic Ferric Flocculant and Environmental Applications of Recovered Product | I11 | Invited Lecture: A3561/ Prof. Ding Li (李丁)/ China/ Manganese Biomineralization by <i>Providencia manganoxydans</i> and <i>Pseudomonas aeruginosa</i> Bacteria and Environmental Implications |
| 15:25-15:40 | O1 | A3529/ Dr. Gustavo Amaro Bittencourt/ Brazil/ Microbial Lipid Production by <i>Rhodospiridium toruloides</i> Using Citric Acid Pretreated Soybean Hull Hydrolysates at Bench Scale | O16 | A3524/ Prof. Chong Li (李冲)/ China/ Customization of Functional Biochar for Cd Stabilization of Acid Soil Based on Meta-Analysis |
| 15:40-15:55 | O2 | A3567/ Dr. Neelu Raina/ India/ Impact of Binary DES and Sequential Pretreatment Techniques on the Structural Integrity and Fermentable Sugar Release from Lignocellulosic Biomass | O17 | A3509/ Prof. Qingang Xiong (熊勤钢)/ China/ Mechanism Of Natural Rubber-Lignin Interface Based On Molecular Dynamics Simulation |
| 15:55-16:10 | O3 | A3556/ Assist. Prof. Muthu Kumar Sampath/ India/ Process Development for the Production of Biobutanol from Agricultural Residues: Towards Sustainable Development | O18 | A3503/ Dr. Guangyu Cui (崔广宇)/ China/ Valorization of Soybean Processing Wastewater Sludge <i>via</i> Black Soldier Fly Larvae and Bacterial Driving Mechanism |
| 16:10-16:25 | O4 | A3564/ Assoc. Prof. Bridgid Chin Lai Fui/ Malaysia/ Investigation of Catalytic Co-Pyrolysis of Water Hyacinth and Tetra Pak Packaging Waste Mixtures using Thermogravimetric Analysis | O19 | A3522/ Assoc. Prof. Yucong Geng (耿宇聪)/ China/ Optimization of Manure-Based Substrate Preparation to Reduce Nutrients Losses and Improve Quality for Growth of <i>Agaricus bisporus</i> |
| 16:25-16:40 | Coffee Break | | | |

| | Session A–Room: Lecture Hall | | Session B–Room: Multi-Function Hall | |
|---|--|---|--|--|
| 16:40-18:20 | A2: Biorefinery and Bioprocess (English/英语) | | B2: Biological Waste Treatment (AD & composting) (Chinese/中文) | |
| | Chair: Prof. Rajeshwar Dayal Tyagi | | Chair: Prof. Yufeng Sun (孙宇峰) | |
| | Co-Chair: Assoc. Prof. Sunita Varjani | | Co-Chair: Prof. Ding Li (李丁) | |
| 16:40-17:00 | I4 | Invited Lecture: A3554/ Prof. Weifeng Liu (刘伟峰)/ China/ Applications of Industrial Lignin in Polymer Materials | I12 | Invited Lecture: A3575/ Prof. Yeqing Li (李叶青)/ China/ Anaerobic Digestion of Biomass And The High-value Utilization of Biogas |
| 17:00-17:20 | I5 | Invited Lecture: A3555/ Prof. Wei-Hsin Chen/ Taiwan China/ Province of China/ Spent Coffee Ground Valorization from Torrefaction for Circular Bioeconomy and Sustainability | I13 | Invited Lecture: A3542/ Prof. Binghua Yan (颜丙花)/ China/ Microbial Communities and Metabolic Pathways in Anaerobic Fermentation of Vegetable Waste for Enhanced Propionic Acid Production |
| 17:20-17:35 | O5 | A3560/ Dr. Mohammed Abiola Akanbi/ Nigeria/ Effect of Earthworms on Physicochemical Parameters and Microbial Community Succession during Vermicomposting of Fresh Kitchen Waste and Sewage Sludge | O20 | A3568/ Dr. Bo Zhou (周博)/ China/ A Novel Approach for Purifying Food Waste Anaerobic Digestate through Bio-Conditioning Dewaering Followed by Activated Sludge Process |
| 17:35-17:50 | O6 | A3541/ Miss. Clara Matte Borges Machado/ Brazil/ Second-Generation Polyhydroxybutyrate (PHB) Production from Pre-treated Corn Lignocellulosic Fraction in a Biorefinery Concept | O21 | A3573/ Dr. Chao Yang (杨超) /China/ Response of Exogenous and Indigenous Microorganisms in Alleviating Acetate-ammonium Co-Inhibition during Thermophilic Anaerobic Digestion |
| 17:50-18:05 | O7 | A3572/ Dr. Jie Bu / China/ Upcycling Bone Meal for Bioenergy and Nutrient Recovery towards Sustainable Vegetable Production | O22 | A3577/ Prof. Wangwang Yan (严汪汪)/ China/ Trichoderma's Dual Impact on Anaerobic Digestion of Waste Activated Sludge: Enhancer or Inhibitor |
| 18:05-18:20 | O8 | A3557/ Miss. Shristy Sonal/ India/ Valorization of Lanatan Camara for Efficient Sugar Production | O23 | A3558/ Dr. Qianzhu Zhao (赵倩竹)/ China/ Enhancing Anaerobic Digestion of Food Waste with CVD Biochar: Effective Enrichment of Methanosarcina and Hydrogenotrophic Methanogens |
| 18:20-19:00 | Poster Viewing | | | |
| 19:00-21:30 | Banquet Dinner: Qiankunrun Songhu Hotel, No. 6, Libin Road, Songshan Lake District | | | |
| Day 2: 06 Dec 2024 (Venue: Dongguan University of Technology) | | | | |

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|-------------|--|---|---|---|
| 8:00-9:00 | Poster Viewing | | | |
| | Session A–Room: Lecture Hall | | Session B–Room: Multi-Function Hall | |
| 9:00-10:50 | A3: Sustainable Resource Management and Environmental Remediation (English/英语) | | B3: Biological Waste Treatment (Chinese/中文) | |
| | Chair: Prof. Guanyi Chen | | Chair: Prof. Jishuang Chen (陈集双) | |
| | Co-Chair: Dr. Khang Wei Tan | | Co-Chair: Prof. Wangwang Yan (严汪汪) | |
| 9:00-9:25 | P2 | Plenary Lecture: A3553/ Prof. Su Shiung Lam/ Malaysia/ Transforming Waste to Wealth: Microalgae for High-Value Products and Eco- Friendly Wastewater Management | P4 | Plenary Lecture: A3535/ Prof. Yufeng Sun (孙宇峰)/ China/ Comprehensive Application and Development Prospects of Industrial Hemp Biomass Resources |
| 9:25-9:45 | I6 | Invited Lecture: A3562/ Prof. Hongbo Liu /China / Low carbon management and resource utilization of solid waste from multi perspectives | I14 | Invited Lecture: A503/ Prof. Xuan Wang (王选)/ China/ Diminishing Heavy Metal Co-Resistance Aids in Antibiotic Resistome Elimination from Manure |
| 9:45-10:05 | I7 | Invited Lecture: A3548/ Assoc. Prof. Sunita Varjani/ India/ Waste-to-Wealth Nexus: Approaches for Sustainable Resource Recovery from Agricultural and Municipal Solid Waste | I15 | Invited Lecture: A3540/ Prof. Shan He (何山)/ China/ Upsized Vortex Fluidic Device Enhancement of Mechanical Properties and Microstructure of Biomass Based Biodegradable Films |
| 10:05-10:20 | O9 | A3571/ Assist. Prof. Jitendra Kumar Saini/ India/ Efficient Degradation of Emerging Phenolic Pollutant Bisphenol A by Laccase of <i>Trametes Cubensis</i> | O24 | Invited Lecture: A3515/ Assoc. Prof. Mingjie Chen (陈铭杰)/ China/ Modified Lignin for Antimicrobial Applications |
| 10:20-10:35 | O10 | A3570/ Dr. Dharani Krishnamurthi/ India/ Integrated Approaches for Tannery Sludge Management: Enhancing Dewaterability and Pollutant Removal with Biochar and <i>Acidithiobacillus Ferrooxidans</i> | O25 | A3517/ Assoc. Prof. Yuanwang Liu (刘元望)/ China/ Temperature Dominates The Dissemination of ARGs Mediated by MGEs during Composting with Gentamicin Fermentation Residue and Swine Manure |
| 10:35-10:50 | O11 | A3526/ Miss. Blessy Silvester/ India/ Adsorption Characteristics of Vancomycin from Aqueous Solution Using Cassava Industrial Waste Residue Biochar | O26 | A3511/ Dr. Yuchen Zhang (张雨辰)/ China/ Degradation of Biodegradable Plastics in Biological Waste Treatment: Potential Mechanisms and Pathways |
| 10:50-11:05 | Coffee Break | | | |
| 11:05-11:35 | Chair: Prof. Andrew Stephen Ball Co-Chair: Prof. Yen Wah Tong | | | |
| 11:05-11:35 | Keynote Speech 4: A3527/ Prof. Hélène Carrere/ France/ Overview of Pretreatments for Anaerobic Digestion : Link between Full Scale and Lab-scale | | | |

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| 11:35-12:00 | Poster Award Presentation and Closing English Session | | | |
| 12:00-14:30 | Lunch (Qiankunrun Songhu Hotel, No. 6, Libin Road, Songshan Lake District) | | | |
| | Session A–Room: Lecture Hall | | Session B–Room: Multi-Function Hall | |
| 14:30-15:50 | A4: Biorefinery and Bioprocess (Chinese/中文) | | B4: Composting (Chinese/中文) | |
| | Chair: Prof. Shan He (何山) | | Chair: Prof. Guanyu Zheng (郑冠宇) | |
| | Co-Chair: Assoc. Prof. Yeqing Li (李叶青) | | Co-Chair: Prof. Dengmiao Cheng (成登苗) | |
| 14:30-14:50 | 18 | Invited Lecture: A3528/ Prof. Jun Zhou (周俊)/ China/ Novel Process for Production of Calcium Carbonate Nanoparticles by Immobilizing CO ₂ from Coal-to-Hydrogen Exhaust Gas with Calcium-Based Solid Wastes | 116 | Invited Lecture: A3576/ Assoc. Prof. Xiaolei Zhang (张小磊)/ China/ Direct Carbon Recovery from Raw Wastewater for Bioenergy Production by Anaerobic Digestion |
| 14:50-15:05 | O12 | A3538/ Assoc. Prof. Jialin Liang (梁嘉林)/ China/ Triclocarban Transformation in Sludge Conditioning Process | O27 | A3501/ Dr. Ning Wang (王宁)/ China/ Using Activated Carbon to Promote Humification during Digestate Composting and Predicting The Maturity of Compost with Machine Learning Models |
| 15:05-15:20 | O13 | A3518/ Assoc. Prof. Nianjie Feng (冯年捷)/ China/ The Effect of Packing Density and Hydrophobic Interaction of Lignin Particles on Enzymatic Hydrolysis | O28 | A3504/ Dr. Lu Zhang (张陆)/ China/ Microbial Electrochemical Composting: A Sustainable Strategy to Enhance Lignocellulose Conversion into Humus |
| 15:20-15:35 | O14 | A3516/ Dr. Qinghao Zhao (赵擎豪)/ China/ Machine Learning-Supported Deep Eutectic Solvents Multiscale Screening to Maximize Bagasse Pretreatment toward Controllable Producing Cellulose Microfiber, Lignin Nanoparticles, and Furfural | O29 | A3507/ Prof. Jiachao Zhang (张嘉超)/ China/ Greenhouse Gas Emission and Pollutant Reduction during Manure Composting with Different Conditioning Strategies |
| 15:35-15:50 | O15 | A3514/ Dr. Jing Mai (麦景)/ China/ Metabolic Division of Labor Between Acetivibrio Thermocellus DSM 1313 and Thermosaccharolyticum MJ1 Enhanced Hydrogen Production from Lignocellulose | O30 | A3508/ Dr. Yubo Cao (曹玉博)/ China/ Ammonium Enrichment in Livestock Manure Driven by Ammonia-abatement Practices Can Reduce Nitrous Oxide Emissions |
| 15:50-16:10 | Coffee Break | | | |
| | Session A–Room: Lecture Hall | | Session B–Room: Multi-Function Hall | |
| 16:10-17:10 | A5: Postgraduates Forum/ Biological Waste Treatment (Chinese/中文) | | B5: Postgraduates Forum/ Composting (Chinese/中文) | |

| | | Chair: Prof. Jun Zhou (周俊) | Chair: Prof. Xuan Wang (王选) | |
|-------------|-------------------------------|---|-------------------------------|---|
| | | Co-Chair: Prof. Jiachao Zhang (张嘉超) | Co-Chair: Prof. Chong Li (李冲) | |
| 16:10-16:20 | SO1 | A3531/ Miss. Jiani Wang (王佳妮)/ China/ The Enrichment of Antibiotic Resistance Genes in Swine Manure Compost Was Related to the Bulking Agent Types | SO7 | A3566/ Miss. Ruolan Tang (唐若兰)/ China/ Iron-modified Biochar to Mitigate Nitrogen Loss during Pig Manure Composting: Performance and Mechanisms |
| 16:20-16:30 | SO2 | A3532/ Miss. Lanxia Zhang (张兰霞)/ China/ Unravelling Biotic and Abiotic Mechanisms of Mature Compost to Alleviate Gaseous Emissions in Kitchen Waste Composting by Metagenomic Analysis | SO8 | A3513/ Miss. Yan Yang (杨燕)/ China/ Risk Level and Removal Performance of Antibiotic Resistance Genes and Bacterial Pathogens in Static Composting with Different Temperature |
| 16:30-16:40 | SO3 | A3551/ Miss. Xinyuan Zhang (张新媛)/ China/ Stratified Aeration Supplied an Effective Way for Ammonia and Greenhouse Gas Mitigation in Composting | SO9 | A3533/ Miss. An Geer (安格尔)/ China/ Polymeric Membranes to Retain Gas Emission during Organic Waste Composting: Performance and Moisture Impacts |
| 16:40-16:50 | SO4 | A3537/ Mr. Chengjian Li (李城坚)/ China/ In-Situ Generation of Iron Activated Percarbonate for Sustainable Sludge Dewatering | SO10 | A3534/ Miss. Ruohan Xia (夏若涵)/ China/ Deciphering the Horizontal Transfer Mechanisms of Antibiotic Resistance Genes During Kitchen Waste Composting Inoculated with Mature Compost using Metagenomics |
| 16:50-17:00 | SO5 | A3510/ Miss. Wanning Li (李万宁)/ China/ Cornstalks Regulate Bacterial Succession and Functions for Organic Matter Degradation in the Composting of Food Waste Digestate | SO11 | A3512/ Miss. Yilin Kong (孔艺霖)/ China/ Deciphering The Phytotoxicity of Different Organic Waste in Composting by Linking Microbial Community Structure with Molecular Composition of Dissolved Organic Matter |
| 17:00-17:10 | SO6 | Mr. Ruipeng Li (李瑞鹏)/ China/ Iron Spin-State Regulation For Selective Persulfate Activation into Singlet Oxygen | SO12 | Miss. Linjuan Li (李林娟)/ China/ Hydrolase Preparation for Producing Volatile Fatty Acids <i>via</i> Anaerobic Co-fermentation of Food Waste and Waste Sludge: Performance and Mechanisms |
| 17:10-17:30 | Closing Session and Departure | | | |

Part THREE- CONFERENCE POSTER

三、会议海报

| User ID | Position No. | Name/nationality | Title |
|-----------------------------------|--------------|---------------------------|--|
| Anaerobic Digestion | | | |
| 113 | P1 | Ms. Linjuan Li / China | Self-culture Biological Enzymes Strengthen the Acid Production Efficiency and Mechanism of Sludge Fermentation |
| 163 | P2 | Dr. Xiqi Li / China | New Understanding of Microbial Growth Cycle for Efficient Waste-activated Sludge Disposal by Preserving Microbial Self-degradation Activity during the Decline Phase |
| 42 | P3 | Mr. Haozheng Wang / China | High-efficient Synthesis of Straw-derived Carbon Quantum Dots for Facilitating Methanogenic Performance in High-load Co-digestion of Food Waste and Excess Sludge |
| 128 | P4 | Mr. Haiyang Zhang / China | Evaluating the Effects of Digestate-derived Biochar and Hydrochar on Anaerobic Digestion of Food Waste: Performance, Mechanisms, and Implication |
| 175 | P5 | Ms. Yanning Hou / China | Elevated Methane Production from Anaerobic Co-digestion of Rice Straw and Pig Manure using Nanobubble Water |
| 175 | P6 | Ms. Xiao Xiao / China | Effect of Headspace H ₂ /CO ₂ Ratios on Butyric Acid Production from Anaerobic Fermentation of Food Waste |
| 34 | P7 | Ms. Xiaoxing Li / China | Improved Biogas Production <i>via</i> Biochar-assisted Thermophilic Dry Anaerobic Co-digestion of Tobacco Stalk and Sludge: Long-term Performance and Mechanism |
| 48 | P8 | Dr. Xing Yan / China | Enhanced Bioelectricity Generation in Thermophilic Microbial Fuel Cell with Lignocellulose as an Electron Donor by Resazurin-mediated Electron Transfer |
| Composting | | | |
| 28 | P9 | Prof. Jun Fang / China | Comparison Analysis of Microbial Agent and Different Compost Material on Microbial Community and Nitrogen Transformation Genes Dynamic Changes during Pig Manure Compost |
| 119 | P10 | Dr. Chen Wang / China | Investigation of Nutrient Retention and Maturity Mechanism in Vegetable Waste Composting with Subsidiary Material in an Industrial Scale |
| 99 | P11 | Dr. Dongyi Li / China | Synergetic Effect of Combined Biochar and Nitrifying Inoculum on Nitrogen Conservation during Food Waste Digestate Composting |
| Biofuels and Biorefineries | | | |
| 135 | P12 | Ms. Xiaomin Chen / China | Hydrogen Production by Rapid Pyrolysis of Biomass and On-line Steam Reforming Using Ni-Co Catalyst |
| 123 | P13 | Dr. Ting Yang / China | Transition Metal-embedded Organic Frameworks Preparation and Research on Their Catalytic Activity in Hydrogen Production |
| 92 | P14 | Ms. Yujie Wang / China | An Industrial-scale Practice about the Waste-to-caproate Biorefinery |

| Bioprocesses and Products Development | | | |
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| 120 | P15 | Mr. Jialiang Sun / China | Preparation and Application of Biodegradable Smart Packaging Film |
| 79 | P16 | Dr. Jing Mai / China | Metabolic Division of Labor Between <i>Acetivibrio Thermoceillus</i> DSM 1313 and <i>Thermoanaerobacterium Thermocharolyticum</i> MJ1 Enhanced Hydrogen Production from Lignocellulose |
| 91 | P17 | Dr. Nianjie Feng / China | The Effect of Packing Density and Hydrophobic Interaction of Lignin Particles on Enzymatic Hydrolysis |
| 131 | P18 | Dr. Yucong Geng / China | Optimization of Manure-based Substrate Preparation to Reduce Nutrients Losses and Improve Quality for Growth of <i>Agaricus Bisporus</i> |
| 246 | P19 | Dr. Jianbo Shuai / China | Novel Ionic Liquid-based Deep Eutectic Solvents for Biomass Straw Dissolution and Regeneration into High-value Materials |
| Bioproducts | | | |
| 65 | P20 | Mr. Xinjun Zhang / China | Unlocking the Potential of Biostimulants Derived from Organic Waste and By-product Sources: Improving Plant Growth and Tolerance to Abiotic Stresses in Agriculture |
| 82 | P21 | Dr. Qinghao Zhao / China | Machine Learning-supported Deep Eutectic Solvents Multiscale Screening to Maximize Bagasse Pretreatment toward Controllable Producing Cellulose Microfiber, Lignin nanoparticles, and Furfural |
| 124 | P22 | Ms. Xiaoqi Sun / China | Fish Gelatin and Starch Mixture as Food 3D Printing Ink |
| 74 | P23 | Ms. Fan Lin / China | The Diversified Utilization of Lignin after Alkaline Treatment |
| 265 | P24 | Dr. Xiaofang Zhou / China | Streptothricin F Biological Production and Simulated Moving Bed Purification from Food Waste Digestate |
| 140 | P25 | Mr. Qingfeng Yang / China | Research on Thermal Insulation Properties of Hemp Straw Composites |
| 141 | P26 | Ms. Huanjia Ma / China | Study on Wet Preparation and Sound Absorption of Industrial Hemp/polylactic Acid Fiber Composites |
| 30 | P27 | Dr. Qing Li / China | Upcycling the Organic Wastes into Entomo-protein and Biodiesel – Current and Future Agroecological and Socio-economic Issues |
| 257 | P28 | Dr. Archana Jain / Indian | Isolation of Endophytic Fungi and its Role on the Biosynthesis of Dendrobine |
| 256 | P29 | Prof. Surendra Sarsaiya / Indian | Dendrobine Production using Temporary Immersion Bioreactor System |
| Thermal Treatment and Biochar- Production and Applications for Environmental Applications | | | |
| 151 | P30 | Ms. Yuqi Fan / China | Preparation and Application of Cotton Fiber based Porous Carbon |
| 160 | P31 | Mr. Shiqi Fu / China | Biomass based Porous Carbon Obtained from Melaleuca Bark for Rapid Removal of PFOA and High-performance Supercapacitors |
| 40 | P32 | Mr. Zihao Wang / China | Synthesis of Functional Multi-walled Carbon Nanotube-based Composites and their Photocatalytic Conversion of Glucose into Lactic Acid |

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| 41 | P33 | Ms. Wanting Wu / China | Study of the Effect of Temperature on the Synthesis of Carbon Quantum Dots and Hydrothermal Carbon Fuels by One-step Hydrothermal Method on Distiller Grain |
| 110 | P34 | Mr. Liqian Ma / China | Effect of Parameter Variations on the Microstructure and Nutrient Contents of Hydrochar Prepared by Hydrothermal Carbonization of Kitchen Waste |
| 142 | P35 | Dr. Na Li / China | Meta-analysis and Empirical Research on the Restorative Effect of Biochar on Tetracycline Pollution in Water Bodies |
| 116 | P36 | Dr. Dengmiao Cheng / China | Effects of Biochars on Photodegradation Behavior of Typical Antibiotics on the Surface Soil Layer |
| 89 | P37 | Mr. Qisen Lan / China | Zero Valent Iron Enhanced Iron Rich Sludge Biochar Activated Persulfate for Non Radical Dominated Removal of Compound Pollution of Roxarsone and Norfloxacin |
| 105 | P38 | Mr. Sihang Li / China | Adsorption Performance of Iron Rich Sludge Biochar-natural Zeolite Dual Carrier Composite Material for Ammonia Nitrogen and Phosphate |
| Synthesis of Catalysts and New Functional Materials | | | |
| 46 | P39 | Mr. Yuhang Cai / China | Green Synthesis of High-performance Supercapacitor Electrode Materials from Bagasse by Mild Potassium Hydroxide Soaking and an One-Step Carbonization |
| 61 | P40 | Mr. Xulei Tang / China | In Situ Immobilization of CO ₂ from Coal-to-hydrogen off-gas to Co-produce Calcium Carbonate Nanoparticles using a Modified Membrane Reactor |
| 121 | P41 | Dr. Li Zeng / China | Pulmonary Effect of 2D MXenes in Mice Immune Cell Responses and Disrupted Hematopoiesis |
| 170 | P42 | Dr. Chengjian Li / China | In-situ Generation of Iron Activated Percarbonate for Sustainable Sludge Dewatering |
| Environmental Bioremediation | | | |
| 50 | P43 | Dr. Lizhu Yuan / China | Influence of C14 Alkane Stress on Cd and Nutrient Elements Uptake by Four Potential Petroleum Hydrocarbon Remediation Plants |
| 29 | P44 | Ms. Rong Gao / China | Screening of Three Ammonia–nitrogen Degrading Strains and Construction of Efficient Compound Bacteria Agent |
| 90 | P45 | Mr. Linbing Zhu / China | Degradation Mechanisms of Isodecyl Diphenyl Phosphate (IDDP) and Bis-(2-ethylhexyl)-phenyl Phosphate (BEHPP) using A Novel Microbially-enriched Culture |
| 175 | P46 | Dr. Huimin Wang / China | Microalgal Physiological Adaptive Mechanisms and Extracellular Polymeric Substances Response to PFOA Stress |
| 70 | P47 | Ms. Yicheng Yang / China | Disintegration Kinetics of Landfilled Plastics: Views from Microplastics and Nanoplastics |
| 33 | P48 | Mr. Jinyou Xia / Hong Kong | Isolation and Identification of Common Bean (<i>Phaseolus vulgaris L.</i>) PGPR in Blackland of Northeastern China and Their Growth Promoting Effects with Two Host Varieties |
| 112 | P49 | Dr. Yuantong Yang / China | Impact of Sludge as a Soil Amendment in Forested Areas under Artificial Rainfall Conditions on Nutrient Loss and Ecological Risk Assessment |
| 44 | P50 | 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 |
| CONFERENCE POSTER | | | |

PART FOUR- CONFERENCE SERVICE

四、会议服务

CONFERENCE SECRETARIAT 会务组联系

CONFERENCE CONTACT 会议联系人：

孙炜 15822857307

徐秋翔 15116407332

谢宛蓉 15329351278

会议邮箱：ISABC2024@126.com

CONFERENCE WEBSITE 大会网站

WEBSITE ADDRESS 网站地址：<https://www.iwabc.cn/>

Application for Admission to DGUT 入校申请（松山湖校区）

Scan the QR code below 扫描下面二维码填写入校申请，从**南门**进入校

（需开车入校或单独入校的参会者需提前一天扫描下面二维码填写入校申请）



申请流程：扫码→访客申请→手机号登录→输入验证码→预约业务→访客业务→“我已阅读并知悉”
→

所在校区：松山湖校区

姓名：申请者姓名

联系电话：申请者电话

身份证号：申请者身份证号

进校类型：有校内联系部门

申请部门：生态环境工程技术研发中心

申请部门管家：李颖慧

校内邀请人：孙炜

进校时间：2024年12月4日

离校时间：2024年12月6日

车辆信息：车牌号（开车填）

工作单位：申请者工作单位

进校原因：参加学术会议，最后提交即可

PART FIVE- CONFERENCE NOTICE

五、会议须知

Conference Registration Venue 会议报到时间地点

报到时间: 12月4日 12:00-21:00

Registration time: 4th December 12:00-21:00

报到地点 Registration Venue: 东莞松山湖希尔顿欢朋酒店 (Hampton by Hilton Dongguan songshan Lake 会议指定酒店), 距离学校 5 公里

地址: 广东省东莞市松山湖风景区礼宾路松科苑三、四号楼 (Building 3 and 4, Songkeyuan, Libin Road, Songshan)

注: 住在东莞理工学院学术交流中心的学生(校内), 直接去学术交流中心报到 (松山湖校区学术交流中心也可报到注册)

Accommodation and Dining 会议住宿与就餐

松湖乾坤润酒店 (松山湖礼宾路 6 号)

Qiankunrun Songhu Hotel, No. 6, Libin Road, Songshan Lake District.

Lunch for Dec. 5 2024

Dinner for Dec. 5 2024

Lunch for Dec. 6 2024

学生住宿: 东莞理工学院松山湖校区学术交流中心

Conference Venue 会议地点

东莞理工学院松山湖校区学术会议中心 (松山湖校区)

