International Symposium on Bioenergy and Biorefinery (ISBB 2026)

Detailed Session Profile & Technical Program Overview

▪ Session Overview

Session Number:	Session #8
Session Title:	Hydrothermal Conversion Technologies (HCT)
Scope & Focus:	Thermochemical conversion of wet carbonaceous resources to co-produce biocrude oil, hydrochar, and bio-fertilizers via high-pressure subcritical aqueous environments.

▪ Committee & Invited Speakers

SESSION CHAIR

Prof. Yuling WU

Tsinghua University

Email: wylong@tsinghua.edu.cn

Wu Yulong is a professor at the Institute of Nuclear and New Energy Technology, Tsinghua University. He has been selected as a national high-level leading talent and serves as the chief scientist for National Science and Technology Major Project and National Key Research and Development Program. His main research areas include the thermal chemical conversion of low-rank carbon resources (such as biomass, sludge, and low-rank coal), and industrial catalytic technologies. He leads over 30 research projects, including key national research and development projects and seven National Natural Science Foundation projects (one of which is a Major Project). He has published more than 190 SCI papers in journals such as Energy & Environmental Science, JACS, Applied Catalysis B, and AIChE Journal, with over 8,800 SCI citations. He serves on the editorial boards of Carbon Resources Conversion (IF=7.5) and as a vice-chairman of the Expert Committee of the China Energy Society, as well as a committee member of three specialized committees of the Chinese Chemical Society. He has won multiple awards, including the HouDebang Chemical Innovation Award, the Engineering Thermochemistry Innovation Award, and the First Prize of the 'Invention and Innovation Award' from the China Association for Inventions, all as the first recipient.

SESSION CO-CHAIR

Prof. Zhidan LIU

China Agricultural University

Email: zdliu@cau.edu.cn

Presentation Title: Hydrothermal technology and sustainable Food-Energy-Water nexus

Dr. Zhidan Liu is a Leading Professor at China Agricultural University, Deputy Director of the Key Laboratory of Facility Agriculture Engineering of MARA. He has been awarded as the Chang Jiang Young Scholars, IAAM Fellow, Elsevier Highly Cited Chinese Researcher and Stanford Top 2% of the World's Most-cited Scientists. He focuses on developing hydrothermal conversion technologies for biomass waste to co-produce biocrude oil, hydrochar, and fertilisers. He serves as Council Member of the IAAM Asia-Pacific Council, Member of the National Technical Committee on Solid Biofuels Standardisation, Vice Chair of relevant divisions within the Chinese Society of Agricultural Engineering. He serves in editorial capacities for IJHE and BEJ. He has published over 100 first or corresponding author papers in journals like Nature Communications and Science Bulletin, more than 30 authorised invention patents, and authorship of 13 books. He has led research projects funded by National Key R&D Program of China and NSFC. His research was awarded as the Natural Science Award from the Ministry of Education.

SESSION CO-CHAIR

Prof. Donghai XU

Xi'an Jiaotong University, China

Email: xudonghai@mail.xjtu.edu.cn

Presentation Title: Catalytic upgrading of biocrude derived from wet biomass hydrothermal liquefaction (Tentative Title)

Professor Xu works at the School of Energy and Power Engineering, Xi'an Jiaotong University, and is a national-level young talent. His research focuses on hydrothermal conversion of wet biomass, catalytic hydrotreating and upgrading of bio-oil, hydrothermal reactor development, and integrated system design for biomass conversion. In these areas, Professor Xu has led 16 national and provincial-level research projects. As first or corresponding author, Professor Xu has published 104 SCI papers as the first/corresponding authors. These publications have received over 8,000 citations, with an H-index of 47. In addition, Professor Xu has authored five books in Chinese and English and holds 68 authorized invention patents.