EREGCE

International Conference on Environment, Renewable Energy and Green Chemical Engineering

Editorial Board:

April 22-24, 2022

Organized by:
Hunan Normal University

Keynote Speakers

Zhanying Zhang
(Queensland University of Technology)

Shahid Hussain
(Jiangsu University)

Peigao Duan
(Xi'an Jiaotong University)

Sponsors

Conference Program
Sponsored by

Committee

General Chairs

Prof. Chunming Yang
Hunan Normal University, China
Prof. Peigao Duan
Xi'an Jiaotong University, China
Prof. Feipeng Jiao
Central South University, China
Prof. Juai Wu
Nanjing University of Posts and Telecommunications, China

Program Chairs

Prof. Zonglin Chu
Hunan University, China
Prof. Zhiguo He
Central South University, China
Prof. Weizhi Zhou
Shandong University, China
Assoc. Prof. Wenjihao Hu
Central South University, China
Prof. Mohd Hasmadi Ismail
Universiti Putra Malaysia, Malaysia
Prof. Muhammed Bashir Mu'azu
Ahmadu Bello University, Nigeria

Technical Chairs

Prof. Rajendra P. SHRESTHA
Asian Institute of Technology, Thailand
Prof. Chang Xu
Hohai University, China
Assoc. Prof. Haoming Chen
Nanjing University of Science and Technology, China
Assoc. Prof. Neslihan Kulözü Uzunboy
Atatürk University, Turkey
Assoc. Prof. Chang Wen
Huazhong University of Science and Technology, China

Technical Program Committees

Prof. Hanfeng Liang
Xiamen University, China
Prof. Lehua Zhang
East China University of Science and Technology, China

Preface

It was our great honor and pleasure to organize the International Conference on Environment, Renewable Energy and Green Chemical Engineering (EREGCE 2022) online on April 22nd to 24th, 2022.

As Chemical industry plays a vital role in the development process of national economy, a large number of poisonous and harmful substances pose a great threat to the ecological environment and human. Therefore, it is a general trend to promote the development of renewable energy and green chemical engineering towards a greener environment. The conference focused on the latest research fields of environment, renewable energy and green chemical engineering, presenting scientific research results and its practical solutions to these matter. It has taken into account the principles of sustainable development, which provides an international platform for experts, professors, scholars and engineers from universities, scientific research institutes, enterprises and institutions at home and abroad to share their professional experiences, expand their professional networks and display their research results.

The comprehensive content of the conference has attracted great attention due to its wealthy information that may be useful to professionals working in the related fields. Many researchers in the related field had participated in the conference and made oral presentations. The conference proceedings contain 50 papers divided into 3 sections: Environment, Renewable Energy and Green Chemical Engineering.

The keynote speeches on April 23, 2022, were given by three scholars, Zhanying Yang, Shahid Hussain and Peigao Duan, and an invited lecture by Chunming Yang. In addition to the presentations brought by the authors, there were three parallel sessions. Session I: Ecosystem sustainability was hosted Haoming Chen (Nanjing University of Science and Technology, China) and Yuanming Guo (Nanjing University of Science and Technology, China), Session Ⅱ: Remediation of water and soil pollution was hosted by Da Tian (Anhui Agricultural University, China) and Gongwen Luo (Key Laboratory of Soil Environment and Pollution Remediation, Institute of Soil Science, Chinese Academy of Sciences,China), and Session Ⅲ: Landscape ecological planning and development was hosted by Haoming Chen (Nanjing University of Science and Technology, China) and Yang Feng (Xijing University, China). Whether in the main session or in the parallel sessions, all scholars expressed their views to showcase their research, contributing to drive innovation and breakthroughs in the whole field.

Many thanks to all the authors who had submitted papers for their participation. It is they who have put a lot of effort and creativity to make this work complete. And we feel honored that they are willing to present their excellent work on this conference. Many thanks also to all the editors and reviewers who had contributed a lot of time in their busy schedules to carefully read and evaluate all the manuscripts.

Finally, due to the epidemic prevention policy, it's a pity that we could not have offline communication and discussion, but still we would like to thank all the supporting organizations for their hardwork and the organizing committee for the extensive preparation that made this online conference a great success. We look forward to having a live conference next year to share the results.

Guest Editors

Chunming Yang (Hunan Normal University)

Haoming Chen (Nanjing University of Science and Technology)

Peigao Duan (Xi'an Jiaotong University)

Feipeng Jiao (Central South University)

Chang Wen (Huazhong University of Science and Technology)

录制中

BEST PAPERS

Number: A801

Title:Biochar amendment in the green roof substrate improve air quality

Authors: Yishu Hu and Haoming Chen

录制中

Chunming YANG的屏幕共享

聊天

小助手

Thank you for sharing. Is there anyone who might want to ask a few questions to our speaker?

小助手

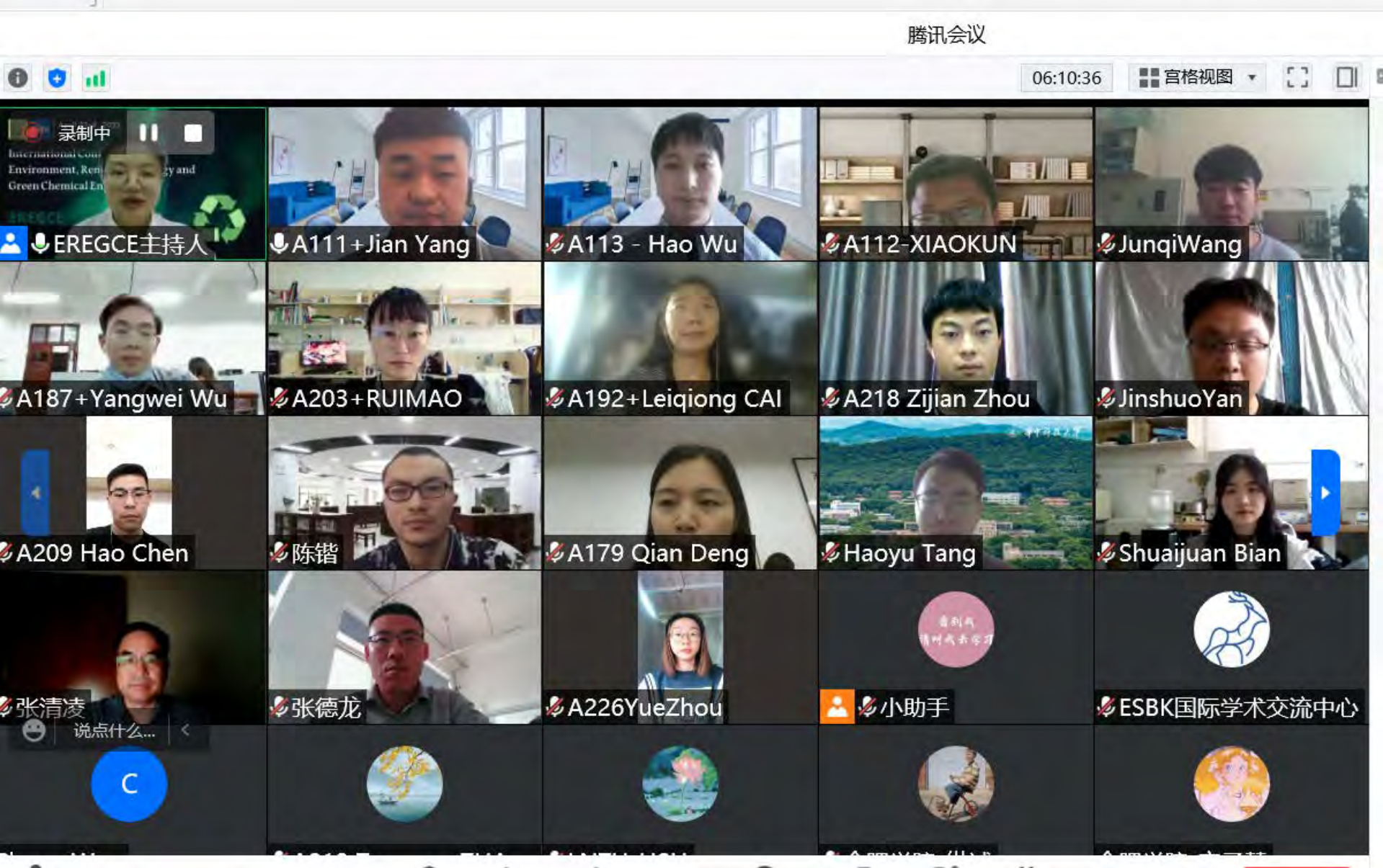
ok, our[表情]next[表情]speaker[表情]would be our general chair —— Prof. Chunming Yang ,he is the editor in chief of【Journal of Natural Science of Hunan Normal University】

【Journal of Natural Science of Hunan Normal University】 has made great contributions to the successful convening of this EREGCE conference.Let' s welcome Prof. Chunming Yang to introduce the【Journal of Natural Science of Hunan Normal University】

发送至: 所有人

发送(S)


录制中
EREGCE主持人
Zhanying Zhang
陈颢明njust
A203+RUIMAO
Shuaijuan Bian
张清凌
A210-Sichun Ding
Junqi Wang
A808JinxingCai
Chunming YANG
A179 Qian Deng
Shahid Hussain
A214-Lipeng WANG
A209 Hao Chen
A189-Kai-Chen
Baishan Li
蒋好
HaoyuTang
安农田达
A187-Yangwei Wu
A221-Yang Feng
A196/A202-张德龙
A804Fangfang Min
A188+Yuhao Liu
合肥学院-陈俊


腾讯会议
06:10:36
宫格视图
录制中
EREGCE主持人
A111+Jian Yang
A113 - Hao Wu
A112-XIAOKUN
JunqiWang
A187+Yangwei Wu
A203+RUIMAO
A192+Leiqiong CAI
A218 Zijian Zhou
JinshuoYan
A209 Hao Chen
陈锴
A179 Qian Deng
Haoyu Tang
Shuaijuan Bian
张清凌
张德龙
A226YueZhou
小助手
ESBK国际学术交流中心
说点什么...
C

Acknowledgements

- EREGCE 2022 - conference organisers, committee and staff
- Funding

Australian Government
Department of Agriculture and Water Resources

Australian Government
Australian Research Council

Queensland Government

syngenta

sra Sugar Research Australia

UPALA

- Colleagues in China
- QUT colleagues

Zhang's Group (Dec 2021)

QUT a university for the real world

Zhanying Zhang

录制中

Shahid Hussain的屏幕共享

聊天 ··· ×

管理成员(63)

batteries. He has published high quality research articles, and also has a wealth of experience, which laid a solid foundation for the project related research. Dr Shahid Hussain has excellent working experience on gas sensors and has been working on sensor device fabrication since 2011. He has published more than 215+ SCI indexed journal research articles with H-Index is 34 in Google Scholar with 3850 citations (Till date Feb 2022). He is also working as an Editor for 16 SCI indexed journals (Elsevier, Springer, Frontiers, Hindawi, American Scientific Publishers and MDPI).

小助手

Prof. Shahid Hussain today’ s topic is Nanomaterials Derived from Metal Organic Frameworks for Gas Sensing Applications

发送至： 所有人

发送(S)

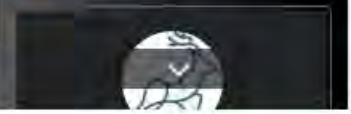
录制中

锁定画面

Keynote Speaker

Assoc. Prof Zhanying Zhang

Assoc. Prof Zhanying Zhang is the leader of Bioprocessing and Biorefining Group at the Centre for Agriculture and the Bioeconomy (CAB), Queensland University of Technology (Brisbane, Australia). He is also an Advance Queensland Industry Research Fellow. Assoc. Prof. Zhanying Zhang graduated from the University of Adelaide in 2008. He joined the CAB, QUT after he completed his PhD study. He has been working on lignocellulose pretreatment and biorefining, cellulosic biofuels and biochemicals, biomass-based materials since 2008. He developed several solvent-based innovative processes for pretreatment and fractionation of lignocellulosic biomass, which led to a number of patent applications and journal publications. His research is important to solve the real world challenges in energy, waste management and climate change. Assoc. Prof. Zhang has generated 102 publications, including 87 journal articles, 10 conferences papers and 5 book chapters. In addition, Assoc. Prof. Zhang has been granted 11 patents worldwide in the area of biomass pretreatment and biorefineries.



录制中

锁定画面

西安交通大學 XI'AN JIAOTONG UNIVERSITY

EREGCE2022

1. Background

Fossil Fuel

Energy Crisis

High Oil Price
Energy Security Risk

Climate Change

Global Warming
Hazy Weather
Sea Level Rise

3

DJANDJA

说点什么...

录制中

西安交通大学 XI'AN JIAOTONG UNIVERSITY

EREGCE2022

Table 3 Elemental analysis (wt.%) of upgraded oil obtained at different reaction time and hydrogen replacement times

	C/wt.%	H/wt.%	O/wt.%	S(PPM)	N(PPM)	HHV(MJ/kg)
Reaction time(h) (8MPaH_2,10wt.%Pt/C, replacement of H_2 at every 2h)						
4	88.78	9.99	0.82	37	5109	47.86
6	88.82	9.48	1.27	31	4976	47.06
8	89.62	9.83	0.93	32	5481	47.93
Number of H_2 replacement times (400°C, 8MPaH_2, 10wt.% Pt/C, total of 6h)						
1	87.81	10.11	1.17	53	6867	47.60
2	88.82	9.48	1.27	31	4976	47.06
3	88.15	10.51	1.14	31	4220	48.30
4	88.58	9.77	0.87	26	3220	47.46
5	88.25	10.05	1.27	27	4168	47.66

As the reaction time increases, the denitrogenation and desulfurization increases first and then decreases.

In the same reaction time, the increase in the hydrogen replacement is beneficial to denitrogenation and desulfurization.

19

DJANDJA

DJANDJA的屏幕共享

管理成员(53)

搜索成员

Rubia

Xiao Jin Yang

150****4488

Chang Wen

ESBK主持人

合肥学院-宋子慧

合肥学院-杨小红

胡倬铖

诗远小方

汤

全体静音 解除全体静音 更多

西安交通大學
XI'AN JIAOTONG UNIVERSITY

EREGCE2022

Overall Experiment Procedure

录制中

锁定画面

西安交通大學 XI'AN JIAOTONG UNIVERSITY

EREGCE2022

1. Background

Fossil Fuel

Energy Crisis

High Oil Price
Energy Security Risk

Climate Change

Global Warming
Hazy Weather
Sea Level Rise

3

DJANDJA

说点什么...