



## **International workshop on technologies for a sustainable society - Biorefinery and water-treatment -**

**Date: December 21<sup>st</sup> (Monday) 2020**

**Time: 09:50 Thailand / (11:50 Japan) - 12:30 / (14:30)**

**Via: ZOOM**

Scope: According to the IEA Bioenergy, biorefinery is defined as "the sustainable processing of biomass into a spectrum of bio-based products (food, feed, chemicals, materials) and bioenergy (biofuels, power and/or heat)". Various technologies need to be developed to get the benefits of using bio-materials and bio-energy. In addition, treatments of residue, such as waste water from bio-refinery processes, should be taken into consideration to realize more environmentally friendly technologies.

This workshop targets to strengthen the research platform among Silpakorn university, Chulalongkorn University and Yamaguchi University. The workshop aims also to integrate young researchers to the international cooperation to tackle the above R&D challenges. An appropriate gender balance is maintained in our workshop. Female researchers and young researchers will be encouraged to participate in our ongoing projects.

**09:50 Thai / (11:50 Japan) Welcoming and “Introduction to each group”**

**10:00-11:00(12:00-13:00)**

10:00 – 10:12(12:00-12:12)

“Bio-Circular-Green economy Technology & Engineering Center”  
Prof. Suttichai Assabumrungrat, Chulalongkorn University, Thailand

10:12 –10:24(12:12-12:24)

“The Institute of Biotechnology and Genetic Engineering”  
Prof. Nuttha Thongchul, Chulalongkorn University, Thailand

10:24– 10:36(12:24-12:36)

“Membranes and membrane reactors; a sustainable option for bio-refinery  
downstream processes”  
Izumi Kumakiri, Yamaguchi University, Japan

10:36 – 10:48(12:36-12:48)

“Designs of functional nanoparticles”  
Haruyuki Ishii, Yamaguchi University, Japan

10:48 – 11:00(12:48-13:00)

“Lipid-based Biorefinery Platform”  
Dr. Worapon Kiatkittipong, Silpakorn University, Thailand

**11:10 – 12:00(13:10-14:00)**

**“Student presentations” (10 minutes presentation + 5 minutes Q&A)**

11:10 – 11:25(13:10-13:25)

“Valorization of hydrosol after steam distillation of citrus residues by  
a membrane dehydration”  
Misaki Sawa, Yamaguchi University, Japan

11:25 – 11:40(13:25-13:40)

“Value-added products from palm-based methyl ester industry”  
Chulita Pornpitakdamrong, Silpakorn University, Thailand

11:40 – 11:55(13:40-13:55)

“Zeolite-TiO<sub>2</sub> composite membranes for water treatment”

Kohei Murasaki, Yamaguchi University, Japan

**12:00– 12:30(14:00- 14:30) “Round table”**

Organizers:

Izumi Kumakiri, Yamaguchi University, Japan

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Worapon Kiatkittipong, Silpakorn University, Thailand