Major research

- Production of biofuels and valuable bio-products from lignocellulosic biomass
- Green conversion process for the production of bio-building blocks and chemical platforms from biomass
- Membrane technologies such as electrodialysis, pervaporation, nanofiltration,... for the separation and recovery of bio-products

Publications

1. **Ly Thi Phi Trinh,** Jae-Won Lee**,** Hong-Joo Lee, Acidified glycerol pretreatment for enhanced ethanol production from rice straw. Biomass & Bioenergy, 94 (2016) 39-45.

2. **Ly Thi Phi Trinh**, Young Ju Lee , Jae-Won Lee , Hong-Joo Lee, Characterization of ionic liquid pretreatment and the bioconversion of pretreated mixed softwood biomass, Biomass & Bioenergy, 81 (2015) 1-8.

3. **Ly Thi Phi Trinh**, Chandan Kundu, Jae-Won Lee, Hong-Joo Lee, An integrated detoxification process with electrodialysis and adsorption from hydrolysates of yellow poplars, Bioresour. Technol., 161 (2014) 280-287.

4. **Ly Thi Phi Trinh**, Young Ju Lee, Hyeun-Jong Bae, Hong-Joo Lee, Pervaporative separation of butanol using a composite PDMS/PEI hollow fiber membrane, J. Ind. Eng. Chem. 20 (2014), 2814-2818.

5. **Ly Thi Phi Trinh**, Eun Jin Cho, Young Ju Lee, Hyeun-Jong Bae, Hong-Joo Lee, Pervaporative separation of bioethanol produced from the fermentation of waste newspaper, J. Ind. Eng. Chem. 19 (2013) 1910–1915.

6. **Ly Thi Phi Trinh**, Young Ju Lee, Jae-Won Lee, Hyeun-Jong Bae, Hong-Joo Lee, Recovery of an ionic liquid [BMIM]Cl from a hydrolysate of lignocellulosic biomass using electrodialysis, Sep. Purif. Technol. 120 (2013) 86–91.

7. So-Yeon Jeong, **Ly Thi Phi Trinh**, Hong-Joo Lee, Jae-Won Lee, Improvement of the fermentability of oxalic acid hydrolysates by detoxification using electrodialysis and adsorption, Bioresour. Technol., 152 (2014) 444–449.

8. Jae-Won Lee, **Ly Thi Phi Trinh**, Hong-Joo Lee, Removal of inhibitors from a hydrolysate of lignocellulosic biomass using electrodialysis, Sep. Purif. Technol. 122 (2014) 242-247.

9. Chandan Kundu, **Ly Thi Phi Trinh**, Hong-Joo Lee, Jae-Won Lee, Bioethanol production from oxalic acid-pretreated biomass and hemicellulose-rich hydrolysates via a combined detoxification process. Fuel, 161 (2015) 129-136.

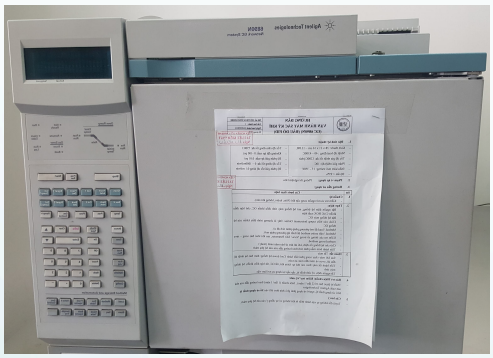
10. **Ly Thi Phi Trinh**, Jae Won Lee, Hong Joo Lee. Acidified glycerol pretreatment for enhanced ethanol production from rice straw. Biomass and Bioenergy, 94 (2016) 39-45.

11. **Ly Thi Phi Trinh**, Yong Soo Choi, Hyeun Jong Bae. Production of phenolic compounds and biosugars from flowers resources via several extraction processes. Industrial Crops and Products, 125 (2018) 261-268.

12. **Ly Thi Phi Trinh**, Young Ju Lee, Chan Song Park, Hyeun Jong Bae.Aqueous acidified ionic liquid pretreatment for bioethanol production and concentration of produced ethanol by pervaporation. Journal of Industrial and Engineering Chemistry, 69 (2019) 57-65.

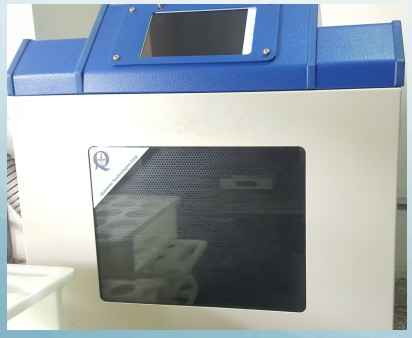
13. Nguyen Quynh Anh, Cho E. J., **Trinh T. P. L**., Jeong J. S., Bae H. J. (2017) Development of an integrated process to produce D-mannose and bioethanol from coffee residue waste. Bioresource Technology. 244: 1039-1048 (I.F. – 5.807)

Equipments



Gas chromatography (FID)

High performance liquid chromatography



Microwave assisted digestion

Gas chromatography mass spectrum