

BBRL AWARDS:

The proposal of **Mr. Ratanachat (Siam) Racharaks** (graduate student) entitled: "A Study of the Simultaneous Use of Two Waste Streams for Biofuel Production: The Cultivation of Microalgae in Hydraulic Fracturing Fluid and Anaerobic Digestion Effluent (2013)" was funded by the **OARDC SEEDS program**

Mr. Johnathon Sheets (graduate student) passed the Fundamentals of Engineering Exam (FE) for the State of Ohio. Those interested in engineering licensure can find information at <http://www.peps.ohio.gov/>

BBRL MEMBER SPOTLIGHT

Shengjun Hu – Shengjun joined the BBRL as a PhD student in September, 2010. He is originally from Zhongjiang in the Sichuan province of China. After receiving his BS at Huazhong Agricultural University in Wuhan, China, he received his MS degree at the University of Idaho in Moscow, ID. His current research focuses on bio-based polyols and polyurethanes from crude glycerol and lignocellulosic biomass.



Shengjun enjoys watching and playing sports – especially basketball – in his free time. He also enjoys beautiful and quiet places in the wilderness. Currently, he is living with his wife, Yi, in Columbus. After he graduates, he hopes to continue his studies as a postdoctorate researcher.

Upcoming events, deadlines, and grants

Jul 12, 2013 – Oral examination report due (sum.)

Jul 19, 2013 – Approved thesis due (sum.)

Jul 21-24, 2013 – ASABE Annual Meeting (Kansas City)

BBRL RESEARCH

2013 Publications

Cai, T., Park S., Siam Racharaks, Li, Y. B. 2013. Cultivation of *Nannochloropsis salina* in anaerobic digestion effluent for nutrient removal and lipid production. *Applied Energy*. 108 (2013) 486–492.

Canam, T., Dumonceaux, T. J., Record E., Li, Y. B. 2013. White Rot Fungi: The key to sustainable biofuel production? *Biofuels* 4(3):247-250.

Luo, X. L., Hu, S. J., Zhang, X., Li, Y. B. 2013. Thermochemical conversion of crude glycerol to biopolyols for the production of polyurethane foams. *Bioresource Technology* 139:323-329.

Shi, J., Wang Z. J., Stiverson, J. A., Yu, Z. T., Li, Y. B. 2013. Reactor performance and microbial community dynamics during

solid-state anaerobic digestion of corn stover at mesophilic and thermophilic conditions. *Bioresource Technology*. 136:574-581

Cai, T., Park, S., Li, Y. B. 2013. Nutrient recovery from wastewater streams by microalgae: status and prospects. *Renewable and Sustainable Energy Reviews* 19: 360-369.

Cherosky P., Li, Y. B. 2013. Hydrogen sulfide removal from biogas by bio-based iron sponge. *Biosystems Engineering* 114:55-59

Xu, F. Q., Shi, J., Lv, W., Yu, Z. T., Li, Y. B. 2013. Comparison of different liquid anaerobic digestion effluents as inoculum and nitrogen sources for solid-state batch anaerobic digestion of corn stover. *Waste Management* 33: 26–32.

Wan, C. X. and Li, Y. B. 2013. Solid-state biological pretreatment of lignocellulosic biomass for biofuel production. In "Green biomass pretreatment and processing methods for bioenergy production". Edited by Gu, Tingyue. Netherlands: Springer. 67-86.

Accepted with minor/major revision

Cai, T., Ge, X. M., Park, Y. S., Li, Y. B. 2013. Comparison of *Synechocystis* sp. PCC6803 and *Nannochloropsis salina* for lipid production using nutrients from anaerobic digestion effluent. *Bioresource Technology*.

Under review

Wang, Z. J., Xu, F. Q., Li, Y. B. 2013. Effects of total ammonia nitrogen concentration on solid-state anaerobic digestion of corn stover. *Bioresource Technology*.

Presentations

Zhu, J., Zheng, Y., Xu, F., Li, Y. B. 2013. Co-digestion of soybean processing waste and deteriorated hay in solid-state anaerobic digestion for biogas production. *OARDC Annual Meeting. Second Place Post-Doc Category.*

Zhao, J., Zheng, Y., Li, Y. B. 2013. Enhancement of methane production in solid-state anaerobic digestion from yard trimmings by fungal pretreatment. *OARDC Annual Meeting.*

Hu, S., Li, Y. B. 2013. Glycerol based liquefaction of corn stover: effects of crude glycerol impurities on polyol properties. *OARDC Annual Meeting.*

Sheets, J.P., Li, Y. B. 2013. *Nannochloropsis salina* cultivation in diluted anaerobic digester effluent under simulated seasonal climatic conditions. *OARDC Annual Meeting.*

Editors

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