

BBRL NEWS:

Jia Zhao passed his master thesis defense on July 11, 2013. The title of his thesis is “*Enhancement of Methane Production from Solid-state Anaerobic Digestion of Yard Trimmings by Biological Pretreatment*”. Jia is going to pursue his PhD degree in the Department of Chemical and Biological Engineering at the Rensselaer Polytechnic Institute (RPI). Congratulations to Jia!

BBRL students and scholars presented research results on the annual **ASABE Conference** in Kansas City, KS on July 21-July 24

Li, Y. B. Overview of the U.S. research and development programs in bioenergy and bioproducts.

Zhao, J., Li, Y. B. 2013. Enhancement of methane production from solid-state anaerobic digestion (SS-AD) of yard trimmings by fungal pretreatment.

Sheets J., Li, Y. B. 2013. Cultivation of *nannochloropsis salina* in diluted anaerobic digester effluent under simulated seasonal climatic conditions and in open raceway ponds.

Hu, S. J., Li, Y. B. 2013. Crude glycerol based liquefaction of lignocellulosic biomass: effects of crude glycerol impurities on polyol properties.

Zhu, J. Y., Zheng, Y., Xu, F. Q., Li, Y. B. 2013. Solid state anaerobic co-digestion of hay and soybean processing waste in a reactor with leachate recirculation.



BBRL MEMBER SPOTLIGHT

Dr. Yunqin Lin – Dr. Lin joined the BBRL in June, 2013 as a visiting scholar. Her research focus includes waste treatment and conversion of organic waste into bioenergy and bio-product through composting and anaerobic digestion technologies. She originally comes from China and she is currently a faculty member in the Department of Environmental Science and Engineering at the South China Agricultural University. In her visiting period at OARDC, she expects to do research on the improvement and/or development of technologies for converting biomass into bioenergy. In her free time, Dr. Lin enjoys having some sports with his son and going shopping with her friends.



Upcoming events, deadlines, or grants

8/15: Late Fee Payment Penalty (\$200) begins for AU semester

8/23: Course Additions (On-Line) ends for AU Semester

9/30-10/3 –Algae Biomass Summit

BBRL RESEARCH

2013 Publications

Cai, T., Ge, X. M., Park, Y. S., Li, Y. B. 2013. Comparison of *Synechocystis* sp. PCC6803 and *Nannochloropsis salina* for lipid production using artificial seawater and nutrients from anaerobic digestion effluent. *Bioresource Technology*, 144:255-260.

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*, 144:281-287.

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.

Under review

Hu, S. J, Luo, X. L., Li, Y. B. 2013. Polyols and Polyurethanes from the Liquefaction of Lignocellulosic Biomass. *ChemSusChem*.

Editors

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Yi Zheng (Leaving from BBRL to Clemens)