

BIOENERGY RESEARCH NEWS

DOE's Office of Biological and Environmental Research published workshop report on "Lignocellulosic Biomass for Advanced Biofuels and Bioproducts" which is focused on (1) biomass development, (2) lignocellulose deconstruction, (3) specialty fuels, and (4) bioproduct development from biomass. [PDF](#)

BBRL NEWS

Dr. Jian Shi (Alumnus of BBRL) received a Tenure track Assistant Professor offer from University of Kentucky in the Department of Biosystems and Agricultural Engineering. Dr. Shi is the fourth BBRL graduate after Drs. Yi Zheng, Caixia Wan, and Liangcheng Yang becomes faculty in the U.S.

Drs. **Yebo Li and Xiaolan Luo's** proposal titled "*Production of polycarbonate biopolyols from corn-ethanol process byproducts for PU Applications*" was funded by OARDC SEEDS in the amount of \$50,000.

Phil Cherosky (Alumnus of BBRL), who now works in the Engineering Unit for the Department of Materials and Waste Management handling authorizations for the beneficial use of waste materials, will give a presentation about the Ohio Environmental Protection Agency (EPA)'s Beneficial Use program at FABE Graduate Seminar on March 3. He will address this program's existence in addressing the increased interest in beneficially using byproducts that are otherwise disposed of in landfills.

BBRL MEMBER SPOTLIGHT

Xiaoying Zhao-Xiaoying Zhao



graduated with a Master degree in Food Science and Engineering from Jilin University and she worked as a research assistant in Changchun Institute of Applied Chemistry, Chinese Academy of Science before joined Dr. Yebo Li's group. Her research interest mainly focuses on the development of biopolyols and polyurethanes from biofuel production byproducts and other renewable materials. In spare time, she likes reading and running.

JOURNAL CLUB/GROUP SEMINAR UPDATE

The Journal Club had one meeting in February:

- **Johnathon Sheets**- "Highly efficient methane biocatalysis revealed in a methanotrophic bacterium", *Nature Communications* DOI: 10.1038/ncomms3785

Upcoming events, deadlines, or grants

- **OARDC Annual meeting poster competition**
 - Poster registration: [March 9th, 2015](#)
 - [Poster submission in PDF March 16th, 2015](#)
- **249th ACS National Meeting & Exposition: [March 22-26, 2015](#)**

BBRL RESEARCH

2014 Peer Reviewed Journal Publications

1. Vasco-Correa, J., Li, Y. 2015. Solid-state anaerobic digestion of fungal pretreated *Miscanthus sinensis* harvested in two different seasons *Bioresource Technology*. In press (IF: 5.04)
2. Park, S., Li, Y. 2015. Integration of biological kinetics and computational fluid dynamics to model the growth of *Nannochloropsis salina* in an open channel raceway. *Biotechnology & Bioengineering*. In press (IF: 4.16).
3. Lin, Y., Ge, X., Liu, Z., Li, Y. 2015. Integration of Shiitake cultivation and solid-state anaerobic digestion for utilization of woody biomass. *Bioresource Technology* 182:128-135 IF: 5.04
4. Li, Y. F., Nelson, M. C., Chen, P. H., Graf, J., Li, Y., Yu, Z. 2015. Comparison of the microbial communities in solid-state anaerobic digesters (SS-ADs) operated at mesophilic and thermophilic temperatures. *Applied Microbiology and Biotechnology* 99:969-980. (IF:3.69).
5. Yang, L., Xu, F., Ge, X., Li, Y. 2015. Challenges and strategies for solid-state anaerobic digestion of lignocellulosic biomass. *Renewable & Sustainable Energy Reviews* 44: 824-834. (IF: 5.51)
6. Ge, X., Matsumoto, T., Keith, L. Li, Y. 2015. Fungal pretreatment of albizia chips for enhanced biogas production by solid-state anaerobic digestion. *Energy and Fuel* 29:200-204. (IF: 2.73).
7. Sheets, J. P., Ge, X., Li, Y. 2015. Effect of limited air exposure and comparative performance between thermophilic and mesophilic solid-state anaerobic digestion of switchgrass. *Bioresource Technology* 180:296-303. IF: 5.04
8. Tong, X., Luo, X., Li, Y. 2015. Development of Blend Films from Soy Meal Protein and Crude Glycerol-Based Waterborne Polyurethane. *Industrial Crops and Products*

67:11-17. (IF:3.21)

9. Bao, Z., Lu, Y., Han, J., Li, Y., Yu, F. 2015. Highly active and stable Ni-based bimodal pore catalyst for dry reforming of methane. *Applied Catalysis A: General* 491:116–126. (IF: 3.67).
10. Chai M., Bellizzi, M., Wan, C., Cui, Z., Li, Y., Wang, G. L. 2015. The NAC transcription factor OsSWN1 regulates secondary cellwall development in *oryza sativa*. *J. Plant Bio.* 58:1-8.
11. Zhu, J., Yang, L., Li, Y. 2015. Comparison of premixing methods for solid-state anaerobic digestion of corn stover *Bioresource Technology* 175: 430–435. (IF: 5.04)
12. Hu, S., Li, Y. 2015. Production of polyols and waterborne polyurethane dispersions from biodiesel-derived crude glycerol. *Journal of Applied Polymer Science* 132(6). (IF: 1.40)

Accepted with minor/major revision

13. Luo, X., Tong, X., Li, Y. 2015. Crude glycerol-based multi-branched polyols and waterborne polyurethane coatings. *Progress in Organic Coatings*. (IF: 1.85)

Submitted

14. Sheets, J. P., Yang, L., Ge, X., Wang, Z., Li, Y. 2015. Beyond land application: Emerging technologies for the treatment and reuse of anaerobically digested agricultural and food waste. *Renewable & Sustainable Energy Reviews*. (IF: 5.51)
15. Racharaks R., Ge, X., Li, Y. 2015. Cultivation of marine microalgae using shale gas flowback water and anaerobic digestion effluent as the cultivation medium *Bioresource Technology*. (IF: 5.04)
16. Li, Y., Xu, F., Wang, Z. 2015. Mathematical modeling of solid-state anaerobic digestion: a review. *Progress in Energy and Combustion Science*. (IF: 16.91)
17. Lin, L., Yang, L., Li, Y. 2015. Effect of feedstock components on thermophilic solid-state anaerobic digestion of yard trimmings. *Energy and Fuel*. (IF: 2.73)

Editors

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