

CHAO LIANG

EDUCATION

2008, Ph.D., University of Wisconsin-Madison, USA

2003, M.S., Chinese Academy of Sciences, China

2000, B.S., Shenyang Agricultural University, China

PROFESSIONAL EXPERIENCE

At present Postdoctoral Appointee, Argonne National Laboratory, USA

2008-2012 Research Associate, Great Lakes Bioenergy Research Center, USA

2003-2008 Research Assistant, University of Wisconsin-Madison, USA

2000-2003 Research Assistant, Chinese Academy of Sciences, China

RESEARCH INTERESTS

Microbial Ecology; Soil Biogeochemistry;

PUBLICATIONS

* *Corresponding Author*

1. * **LIANG, C.**, Duncan, D.S., Balsler, T.C., Tiedje, J.M., Jackson, R.D. (2012) *Soil microbial residue storage linked to soil legacy under biofuel cropping systems in southern Wisconsin, USA. Soil Biology and Biochemistry*. Online press
2. * **LIANG, C.**, Balsler, T.C. (2012) *Warming and nitrogen deposition lessen soil microbial residue contribution to stable soil carbon pool. Nature Communications*. 3:1222
3. * **LIANG, C.**, da C Jesus, E., Duncan, D.S., Jackson, R.D., Tiedje, J.M., Balsler, T.C. (2012) *Soil microbial communities under model biofuel cropping systems in southern Wisconsin, USA: Impact of crop species and soil properties. Applied Soil Ecology*. 54: 24-31
4. * **LIANG, C.**, Read, H.W., Balsler, T.C. (2012) *GC-based detection of aldonitrile acetate derivatized glucosamine and muramic acid for microbial residue determination in soil samples: analytical protocol and derivative validation. Journal of Visualized Experiments*. 63:e3767
5. * **LIANG, C.**, Cheng, G., Wixon, D.L., Balsler, T.C. (2011) *An absorbing Markov Chain approach to understanding the microbial role in soil carbon stabilization. Biogeochemistry*. 106: 303-309
6. * **LIANG, C.**, Zhang, X., Wei, L., He, H., Higbee, A.J., Balsler, T.C. (2011) *Investigation of molecular ion structure for aldonitrile acetate derivatised muramic acid. Journal of Microbiological Methods*. 86: 224-230
7. * **LIANG, C.**, Sanford, G.R., Jackson, R.D., Balsler, T.C. (2011) *Potential legacy effects of biofuel cropping systems on soil microbial communities in southern Wisconsin, USA. Agricultural Sciences*. 2: 131-137
8. * **LIANG, C.**, Balsler, T.C. (2011) *Microbial production of recalcitrant organic matter in global soils: Implications for productivity and climate policy. Nature Reviews Microbiology*. 9: 75-75

9. * **LIANG, C.**, Balsler, T.C. (2010) *Mass spectrometric characterization of amino sugar aldonitrile acetate derivatives used for isotope enrichment assessment of microbial residues*. **Soil Biology and Biochemistry**. 42: 904-909
10. * **LIANG, C.**, Read, H.W., Balsler, T.C. (2009) *Reliability of bacterial muramic acid as a biomarker influenced by methodological artefacts from streptomycin*. **Microbial Ecology**. 57: 494-500
11. * **LIANG, C.**, Pedersen, J.A., Balsler, T.C. (2009) *Aminoglycoside may interfere with microbial amino sugar assay*. **Journal of Chromatography A**. 1216: 5296-5301
12. * **LIANG, C.**, Balsler, T.C. (2008) *Preferential sequestration of microbial carbon in subsoils of a glacial-landscape toposequence, Dane County, WI, USA*. **Geoderma**. 148: 113-119
13. **LIANG, C.**, Fujinuma, R., Balsler, T.C. (2008) *Comparing PLFA and amino sugars for microbial analysis in an upper Michigan old growth forest*. **Soil Biology and Biochemistry**. 40: 2063-2065
14. **LIANG, C.**, Fujinuma, R., Wei, L., Balsler, T.C. (2007) *Tree species-specific effects on soil microbial residues in an upper Michigan old-growth forest system*. **Forestry**. 80: 65-72
15. * **LIANG, C.**, Zhang, X., Balsler, T.C. (2007) *Net microbial amino sugar accumulation process in soil as influenced by different plant material inputs*. **Biology and Fertility of Soils**. 44: 1-7
16. * **LIANG, C.**, Zhang, X., Rubert, K.F., Balsler, T.C. (2007) *Effect of plant materials on microbial transformation of amino sugars in three soil microcosms*. **Biology and Fertility of Soils**. 43: 631-639

17. Chen F., Feng, X., **LIANG, C.** (2012) *Endogenous versus exogenous nutrient affects C, N, and P dynamics in decomposing litters in mid-subtropical forests of China*. **Ecological Research**. 27: 923-932
18. Xu, C., **LIANG, C.**, Wulschleger, S., Wilson, C., McDowell, N. (2011) *Importance of feedback loops between soil inorganic nitrogen and microbial community in the heterotrophic soil respiration response to global warming*. **Nature Reviews Microbiology**. 9: 222-222
19. Balsler, T.C., Gutknecht, J.L.M., **LIANG, C.** (2010) *How will climate change impact soil microbial communities?* P. 373-397. In: Dixon G.R., and Tilston E. (eds.) **Soil Microbiology and Sustainable Crop Production**. University of Reading, UK.
20. Moritz, L.K., **LIANG, C.**, Wagai, R., Kitayama, K., Balsler, T.C. (2009) *Vertical distribution and pools of microbial residues in tropical forest soils formed from distinct parent materials*. **Biogeochemistry**. 92: 83-94
21. Chen, F., Chen, G., Zeng, D., **LIANG, C.** (2002) *Effects of peat and weathered coal on the growth of Pinus sylvestris var. mongolica seedlings on aeolian sandy soil*. **Journal of Forestry Research**. 13: 251-254

PROFESSIONAL MEMBERSHIPS

Soil Science Society of America (SSSA) since 2006 www.sssa.org

Ecological Society of America (ESA) since 2007 www.esa.org