PRESENTER: Doug Hendry, PhD. Candidate
University of Missouri, Department of Chemical Engineering

TITLE: Continuous Processing for Fuel Gas Generation in a Biomass Refinery

ABSTRACT:
Biomass is our only sustainable carbon resource. It must be processed to meet society’s needs for food, chemicals, fiber, fuel and energy. The required chemical structures and energy exist in biomass. We contend that supercritical fluids provide advantages in biomass processing. Two of the engineering challenges encountered when processing biomass in the context of a biorefinery are: 1) feeding and 2) separations. Recent work in our laboratory using supercritical water for conversion (gasification) of biomass including unprecedented reaction rates will be shown. Developments and data in upstream processing (continuous feeding) as well as downstream processing (separations) will also be presented.

BIOGRAPHY:
Doug is a PhD candidate (May 2012 graduation) in Chemical Engineering at the University of Missouri. He works in the Carbon Recycling Center operated by Professor Jacoby in Biological Engineering. He received his B.S. in Biological Engineering from the University of Missouri in 2009. His research is focused on continuous processing of biomass and waste materials in supercritical fluids.

DATE • TIME • LOCATION:
January 24, 2012, 4:00 PM, 105 Agricultural Engineering Building