

Process Development for Nutrients Removal and Recycle from Rural and Agricultural Wastes

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Nutrients, such as nitrogen (N), phosphorus (P), and sulfur (S), are vital components for fertilizers and animal feeds, while they are also the major pollutants from rural domestic wastewater and agricultural manure. Improving utilization efficacy of these nutrients in animal feeds and recycle these nutrient pollutant from rural and agricultural wastes can minimize the environmental impacts of agricultural activities, alleviate the dependency on fossil fuels, and bring benefits to local communities. Dr. Bo Hu will introduce his research at University of Minnesota related to this area, emphasizing on biomass utilization, industrial fermentation and agricultural waste management. His research group is currently working on projects to improve nutritional value of animal feeds via fungal fermentation, remove phosphorus, nitrogen and sulfur from agricultural waste and sewage sludge via different approaches, including microbial electrochemical cells and re-design of anaerobic digestion. In this presentation, he will explain several case studies in the process development for nutrients removal and recycle.

Dr. Hu is a professor at University of Minnesota, Twin Cities. He received his bachelor's degrees in the Department of Chemical Engineering in 2000 and then master's degree in the Biochemical Engineering Department in 2003 both at the Beijing University of Chemical Technology. He received his PhD in the Department of Biological Systems Engineering at Washington State University in 2007. He served as an assistant professor at the Chemical Engineering Department, University of Puerto Rico Mayaguez from 2007 to 2009; and then transferred to the Department of Bioproducts and Biosystems Engineering at University of Minnesota.

How to join:

Microsoft Teams: Meeting ID: 424 735 174 880 Passcode: 2h4Bjb Or contact <u>dr.Ronghong.lin@gmail.com</u> to receive a link.