University of South Florida – Civil & Environmental Engineering
Environmental and Water Resource Engineering Graduate Seminar – Spring 2016

Magic Granules: Concepts of Granular Sludge for Management of Wastewater

Dr. Mari Winkler

Department of Civil & Environmental Engineering
University of Washington

Wednesday, February 17, 3:00 p.m.
IDR 2nd Floor Conference Room

Abstract: de Kreuk *et al.* (2005) write that "granules making up aerobic granular activated sludge are to be understood as aggregates of microbial origin, which do not coagulate under reduced hydrodynamic shear, and which settle significantly faster than activated sludge flocs." While implemented full-scale in Europe, aerobic granular sludge technology has yet to be executed in the United States. Wastewater treatment plants consume a lot of space, and this technology can reduce space requirements by 25%, consume less energy, and reduce construction costs by 35%. This talk will provide an overview of granular sludge for the management of wastewater.

Biosketch: Dr. Mari Winkler joined the University of Washington as an Assistant Professor in Civil and Environmental Engineering in April, 2015. Her research interests include wastewater treatment, phosphorus removal and recovery, biosolids treatment, and microbial ecology. Dr. Winkler most recently worked in Belgium in the Biosystems Engineering Department at Ghent University through the prestigious Marie Curie post-doctoral fellowship. Originally from Germany, Dr. Winkler's scientific career has brought her around the world. She studied at the University Duisburg Essen, University of British Columbia, Columbia University, and the University of New South Wales, and received her PhD in Environmental Biotechnology at Delft University of Technology. After her PhD, Dr. Winkler worked with engineering companies to design and construct wastewater treatment plants, upgrading plants and finding new technologies to make treatment processes better.

Dr. Winkler's visit to Tampa is supported by the Florida Water Environment Association (FWEA) and the Environmental Protection Agency supported Center for Reinventing Aging Infrastructure for Nutrient Management (*RAINmgt*)

Semester seminar schedule found at: http://ce.eng.usf.edu

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