

Department of

Chemical and Environmental Engineering

2014—2015 Seminar Series

Friday, March 6, 2015

9:10—10:00 AM

WCH 205/206



Karl G. Linden

Croft Professor

Environmental Engineering Department

University of Colorado Boulder

The ABCS and XYZs of AOPs

The urban water cycle necessitates that waters impaired by chemicals used in our society get treated to protect public health. Advanced oxidation processes (AOPs) are one treatment technology class that can destroy chemical pollutants by transformation through the action of hydroxyl radicals. While ideally these contaminants are at least deactivated, if not completely mineralized, the resulting transformation products necessitates a close examination of the treatment end products and engineering considerations for polishing treatment process. This talk will present the fundamental basis for a number of AOPs used in water treatment and methods for evaluating the treatment efficacy considering resulting transformation products, drawing on trends in the water industry recent research by Professor Linden and his students.

Biosketch: Karl Linden is the Croft Professor of Environmental Engineering at University of Colorado Boulder. He has a BS from Cornell and MS and PhD from UC Davis. His research investigates UV and ozone for inactivation of pathogens and oxidation of organic and other emerging contaminants in water and wastewater. He is associate editor of Journal of Environmental Engineering and Journal AWWA. He is President of the International Ultraviolet Association (IUVA), was named a 2013-2014 Fellow of the Australian Water Recycling Centre of Excellence and in 2013 received the Pioneer Award in Disinfection and Public Health from the Water Environment Federation. Dr. Linden was named the 2014 WateReuse Person of the Year by the WateReuse Association.