

OBERLIN

COLLEGE & CONSERVATORY

Chemistry & Biochemistry

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College of Wooster

"Advanced Materials for Water Treatment"

Did you know it requires over 2,000 gallons of water to process one wafer in computer chip fabrication? Did you realize approximately 1 trillion gallons of water is co-extracted during oil and gas production each year around the world? Have you heard about estimates that 30% of urban groundwater supplies in the U.S. may be impacted by industrial chemicals? Developing innovative technology to purify water is one of the emerging areas in chemistry and engineering.

There are a wide variety of applications that require water treatment technologies to protect the environment and human health. This seminar will focus on the chemistry of Osorb which is a unique organosilica material that acts as a nano-mechanical sponge to remove dissolved organics from water. In addition to acting as a new type of reversible sorbent, Osorb can be modified with nanoscale metal particles to create catalytic systems that convert water contaminants to safe and inert compounds. Applications discussed include groundwater remediation and purification of water from industrial processes.

Wednesday 9/28/11

4:45 pm Room A255

Science Center

A reception will be held at 4:30 in the David Love Lounge

Sponsored by the Steiner fund