

## **CBIMMS Invited Seminar**

### ***Smart Hybrid Materials: Controlling the Porosity of Silica Based Membranes and Particles with Stimuli Responsive Polymers***

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Chemical Engineering and Chemistry  
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**Tuesday, December 3, 2002**

**1:00 PM**

**Room 203 Teer**

#### Abstract

Recent progress on the development of hybrid organic / inorganic porous materials that incorporate stimuli responsive polymers such as poly(*N*-isopropyl acrylamide) and elastin-like polypeptides will be presented. Focus is on sol-gel synthesis and processing to form membranes and microparticles. Several methods for incorporating the stimuli responsive polymer have been demonstrated including, physical entrapment, surface grafting in pores, and copolymer formation. Attributes of each method, characterization, analysis, and potential applications of these materials will be presented.

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