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Prof. Sandy Asher
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*Crystalline Colloidal Self Assembly for Photonic Crystal Chemical
Sensors and Other Useful Devices*

Tuesday Sept. 18th, 1:00pm
Otto Maass room 10

We utilize crystalline colloidal self assembly to prepare large single crystals of ~100 nm particles in nonclose packed arrays. We polymerize the array in a crosslinked hydrogel. This material functions as an environmental and chemical sensor due to the dependence of the hydrogel volume on the balance of osmotic pressures deriving from the free energy of mixing of the hydrogel with the medium, ionic interactions and the crosslink density restoring forces. We will discuss applications in glucose sensing in contact lenses for diabetes management.

Everyone is welcome

