

*The Department of Chemistry and Biochemistry*

**Seminar Series**

*Presents a Seminar Titled:*

***“Polyelectrolyte Linked Film Assemblies of Nanoparticle and Nanoshells: Growth, Stability and Optical Properties”***



**Presented By**

***Dr. Kevin Kittredge***

*Associate Professor of Chemistry  
Virginia Wesleyan College*

We have prepared a variety of monolayer protected cluster (MPC) assembled films w/ crown ether (CE) moieties. We will discuss CE-metal-CE sandwiches that link the MPCs and that they are effective enough to grow substantially thick films. We will show how these networked films are electronically connected. Our films are unique because the films selectively assemble and are less pH dependent than traditional carboxylic acid-metal ion-carboxylic acid films. We will show that the films need a certain amount of flexibility in order to properly assemble and link. The films are selective as metal ion sensors. Our next generation films are those that are polymer linked nanoshells which are able to effectively maintain interparticle spacing and integrity with a higher sensitivity to metal ions.

**Friday, April 5, 2013 at 3:00 in OCNPS 100**