



American Chemical Society Susquehanna Valley Section

NOVEMBER 2012 NEWSLETTER

The four hundred and sixth meeting of the American Chemical Society Susquehanna Valley Section will be held on Wednesday, November 7, 2012 in Room G09 of the Heim Building on the Lycoming College campus. The meeting will begin at 7:00 PM and will be preceded by dinner at 5:15 PM at the Bullfrog Brewery at 231 West Fourth Street, Williamsport, PA. The speaker will be Dr. Gregory S. Ferguson of LeHigh University.

"Regioselective Placement of Ligands on Surfaces: Studies at the Nexus of Surface Chemistry, Solution Chemistry, and Electrochemistry"

Dr. Gregory S. Ferguson
Departments of Chemistry and Materials Science & Engineering
LeHigh University

This seminar will focus on synthetic strategies that allow the formation of single molecular layers of alkyl thiolates only on selected gold electrodes, without changing the composition of neighboring gold surfaces on the same substrate. These approaches use an applied electrical potential either to activate adsorption onto an electrode or to induce chemical changes at an electrode that prevent adsorption. Stepwise adsorption of functionalized precursor molecules—alkyl thiosulfates (RS_2O_3Na) or dialkyl disulfides (RSSR)—can be used to produce arrays of functionalized electrodes, each with a unique set of ligands. The breadth of applicability of these approaches has been explored, as have the mechanisms by which monolayers form selectively. The product surfaces were characterized by a combination of x-ray photoelectron spectroscopy, optical ellipsometry, and wettability measurements, among other methods.

Gregory S. Ferguson graduated from the College of William and Mary in Virginia with B.S. degrees in Chemistry and Philosophy. He then earned M.S. and Ph.D. degrees in Chemistry at Cornell University. After two years as an NIH Postdoctoral Fellow in the Chemistry Department at Harvard University, he joined the faculty of Chemistry at Lehigh University. He currently holds the position of Professor, with a joint appointment in Departments of Chemistry and of Materials Science & Engineering at Lehigh University. Professor Ferguson's research interests include the surface chemistry of organic and inorganic solids, the synthesis and properties of new materials, and the relationships between these two areas.

DINNER: 5:15 pm at the Bullfrog Brewery (231 West 4th Street, Williamsport). Please call ((570)-321-4181) or email (smithdeb@lycoming.edu) reservations to Debbie Smith by November 2.

DIRECTIONS TO LYCOMING COLLEGE:

From I-80, take U. S. Route 15 north. Travel approximately 15 miles to Williamsport. Continue over the Market Street Bridge (stay in left lane) and follow the signs for the Business District. Go to the fourth traffic signal and turn right onto Little League Boulevard. Go one block east and turn left at the stop sign onto Mulberry Street. At the next traffic signal, turn right onto Washington Boulevard. The entrance to the Heim Building parking lot will be the first right (Park in the row closest to the building).

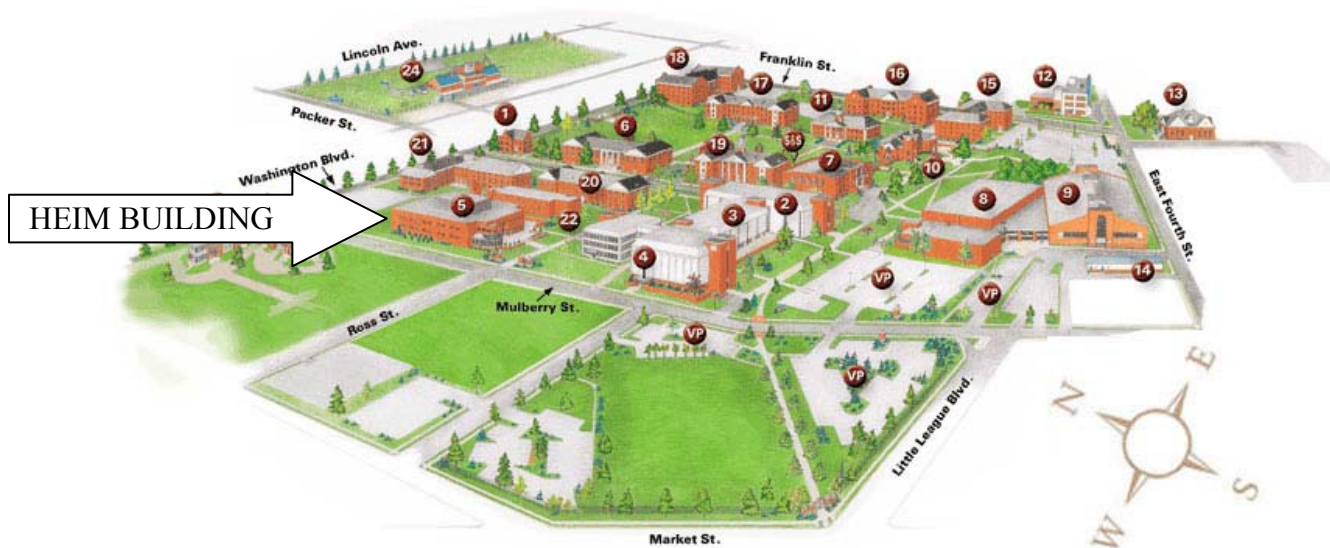
DIRECTIONS TO THE BULLFROG BREWERY RESTAURANT

From I-80, take U. S. Route 15 north. Travel approximately 15 miles to Williamsport. Continue over the Market Street Bridge (stay in left lane) and follow the signs for the Business District. At the third traffic signal, turn left onto 4th Street. Follow 4th Street west to the third traffic signal, which is Hepburn Street (there will be a movie theater on the right at the corner). Parking is available along Hepburn Street (on the street and in a public parking lot). The Bullfrog Brewery is directly next to City Hall on 4th Street, one block east of Hepburn Street.

From I-180/US-220, exit onto Market Street (Exit 27A). Turn left from the exit ramp at the traffic signal and follow Market Street north into the city. At the second traffic signal, turn left onto 4th Street. Follow 4th Street west to the third traffic signal, which is Hepburn Street (there will be a movie theater on the right at the corner). Parking is available along Hepburn Street (on the street and in a public parking lot). The Bullfrog Brewery is directly next to City Hall on 4th Street, one block east of Hepburn Street.

DIRECTIONS FROM THE BULLFROG BREWERY RESTAURANT TO LYCOMING COLLEGE:

Follow Hepburn Street north to the traffic signal at Little League Boulevard (0.2 mi). Turn right onto Little League Boulevard and follow it until it ends at Mulberry Street (0.3 mi). Turn left at the stop sign onto Mulberry Street. At the next traffic signal, turn right onto Washington Boulevard. The entrance to the Heim Building (Building 5 on the campus map below) parking lot will be the first right (Park in the row closest to the building).



Section Web Page: <http://departments.kings.edu/SusquehannaValleyACS>
