Postdoctoral Position Available

A postdoctoral position is available immediately at the University of Illinois at Chicago in the general area of chemical reaction mechanisms on metal surfaces. The work will entail the use of experimental surface science methods to explore the reaction mechanisms of small molecules on single crystal surfaces of metals under ultrahigh vacuum conditions. A specific focus will be on the selective hydrogenation of organic molecules over bimetallic surfaces. The primary technique will be reflection absorption infrared spectroscopy (RAIRS), with complementary information provided by the techniques of temperature programmed desorption (TPD), X-ray photoelectron spectroscopy (XPS), low energy electron diffraction (LEED), and Auger electron spectroscopy (AES). RAIRS will be used both to identify surface intermediates and to measure the kinetics of selected surface reactions. The interpretation of the experimental data will be aided with density functional theory (DFT) calculations. The instrumentation available in our group is described on our website: http://www2.chem.uic.edu/mtrenary/index.html.

The ideal candidate will have experience with ultra high vacuum surface science methods and instrumentation with an interest in the surface chemistry associated with heterogeneous catalysis. The position will involve working closely with graduate and undergraduate students. Interested individuals should send their CV and publication list and a list of three people who can provide letters of reference to mtrenary@uic.edu. Applications will be reviewed until the position is filled.