

Single Molecule Spectroelectrochemistry

Single electron transfer events in both immobilized and freely diffusing redox-active molecules can now be studied with some facility using bifunctional nanoelectro-chemical-nanophotonic arrays. High density recessed dual-ring electrode nanopores can moderate the interaction between single electron-transfer events and fluorescence emission, in the zeptoliter optical confinement volume of a zero-mode waveguide. The dual optical-electrochemical functionality makes it possible to perform single molecule spectroelectrochemical measurements under redox cycling conditions – both when the upper electrode is potential-controlled and using self-induced redox cycling.



Analytical Seminar

presented by

Prof. Paul Bohn

Notre Dame University

Thursday, March 9, 2017

12:15 p.m., Room 1315