UNIVERSITY OF RHODE ISLAND
Department of Chemistry
SEMINAR

Room 105 Beaupre Center
3:00 p.m, Monday February 26, 2018

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"Molecular Monolayers as Functional Interfaces on Nanoporous Gold"

HOST

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"Molecular Monolayers as Functional Interfaces on Nanoporous Gold"

Nanoporous gold presents a surface with high conductivity and surface area, which makes it an interesting platform for surface chemistry. However, the nanoporous gold surface lacks the functionality necessary for many applications. We have investigated self-assembled thiol-based monolayers and the electroreduction of diazonium-based salts to form aryl molecular layers on nanoporous gold. We use infrared spectroscopy and cyclic voltammetry to show that the molecular layer ordering and density depend on the functionalization method. We also find intermolecular interactions within the pores of nanoporous gold that are not observed on planar gold.