

Abstract Submitted
for the OSS21 Meeting of
The American Physical Society

Attempt to Selectively Adsorb 1,8-Octanedithiol on Au for Scanning Probe Microscopy VIVIAN THOMAS, CRAIG HOWALD, Marietta College — Scanning probe microscopy (SPM) is a branch of microscopy that achieves sub-atomic resolution by raster scanning specimens with a small probe. Scanning tunneling microscopy (STM) is a type of SPM based on the principle of quantum electron tunneling. We clean a crystalline gold sample using sputtering and annealing procedures to remove adsorbates, which lets us resolve more details of its surface with STM. We attempt to dose the sample with sub-monolayer coverage of 1,8-octanedithiol but find that we cannot detect desorbed octanedithiol well enough to selectively transfer it to the sample.

Vivian Thomas
Marietta College

Date submitted: 26 Mar 2021

Electronic form version 1.4