Supporting Information:

Measurement of the Band Bending and Surface Dipole at Chemically Functionalized Si(111)/Vacuum Interfaces

David C. Gleason-Rohrer, Bruce S. Brunschwig,* and Nathan S. Lewis*

Beckman Institute and Kavli Nanoscience Institute

Division of Chemistry and Chemical Engineering

210 Noyes Laboratory, 127-72

California Institute of Technology

1200 E. California Blvd.

Pasadena, CA 91125
Supporting Information: Scheme 1. Schematic representation of Si(111) surface functionalization.
Supporting Information: Figure 1. XPS (a) survey and (b) Br 3d spectra of Si(111) surfaces. Sample surfaces are clean with adventitious carbon and oxygen accounting for 1-3 monolayers on unannealed surfaces. Si(111)-CH$_3$[Br] surface concentration of bromine is 10%-30% (10% shown) the concentration of Si(111)-Br surfaces. IR absorbance spectra subtracted from Si(111)-H (c) and (d) demonstrate no loss of characteristic Si(111)-CH$_3$ peaks upon exposure to bromine. The oxide coverage (not shown) was found to be less than 15% ±10% of a monolayer for all samples.