

Abstract Submitted
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Watching Molecules Orient in the Stern Layer JEFF TURNER, Departments of Chemistry, of Physics, of Materials Science and Engineering, and Frederick Seitz Materials Research Laboratory, University of Illinois, ZACHARY SCHULTZ, ADELE POYNOR, SHAN JIANG, SUNG CHUL BAE, ANDREW GEWIRTH, STEVE GRANICK — The orientation of molecules near a surface is interesting not only from a fundamental viewpoint, but also for controlling chemical reactivity and surface engineering properties. Using a surface potential, we control the orientation of a zwitterionic benzene derivative, and follow this orientation with broadband IR/narrowband visible sum frequency spectroscopy. Another interesting system we study via SFG is the interface formed when water meets a methyl-terminated hydrophobic surface. For this system, SFG results are compared to our group's measurements using ellipsometry and neutron reflectivity techniques.

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