

Abstract Submitted
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Reconstructing the dynamics of water near a model charged surface using inelastic x-ray scattering NATHAN SCHMIDT, ROBERT CORIDAN, GHEE HWEE LAI, PETER ABBAMONTE, GERARD WONG, University of Illinois at Urbana-Champaign, WONG RESEARCH GROUP TEAM — Understanding the behavior of water near hydrophobic surfaces is fundamental to many aspects in biology and surface. From high resolution inelastic x-ray scattering measurements of the dynamical structure factor at 3rd generation synchrotron sources, we reconstruct the longitudinal (density) response function of water. We use this data set to investigate how water behaves at polar and non-polar surfaces via linear response theory. Preliminary data on this and on how water wets hydrophobic surface patches of different sizes will be presented.

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