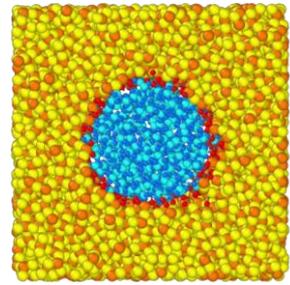
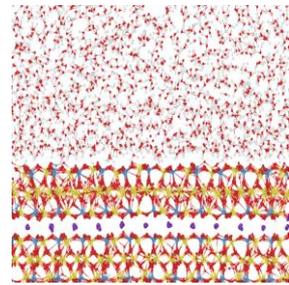
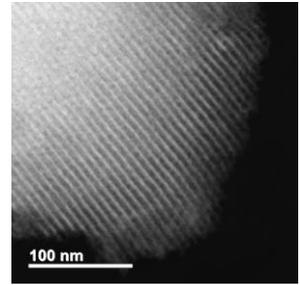


# Multi-scale Fluid-Solid Interactions in Architected and Natural Materials (MUSE)

Darryl P. Butt (University of Utah); Class: 2018-2022

Synthesis, characterization of geomaterials  
Understanding properties of fluids in confined media

**MISSION:** To synthesize geomaterials with repeatable hierarchical heterogeneity and develop an understanding of transport and interfacial properties of fluids confined within these materials.



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## RESEARCH PLAN

Synthesized heterogeneous geomaterials will be used as substrates for determining the transport and interactions of multi-phase fluids over many length scales, including at the nanometer scale. Dynamic in-operando determination of material and fluid properties will be performed, and these measurements will be used for the development of experimentally-validated, atomistically-informed modeling tools and frameworks.