**Neutron reflectivity investigation of the role of pH in the structure of a solid-supported bilayer.**

This experiment uses neutron reflectometry to examine the effects of pH on the structure of solid-supported lipid bilayers and their interactions with the substrate. Specifically, it will focus on measuring the thickness, headgroup hydration, and bilayer-substrate hydration layer of the bilayers under varying pH and ionic strength conditions. This summer school experiment will teach how to use membrane model systems for neutron reflectivity and how to optimize conditions for biological experiments.