

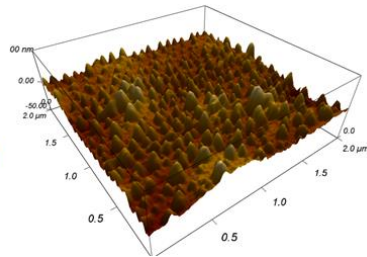
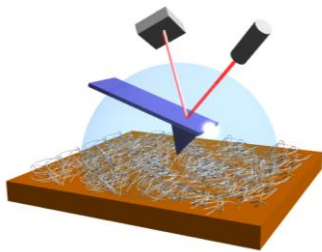
# Bio-Interface Analysis

Our analysis aims to clarify

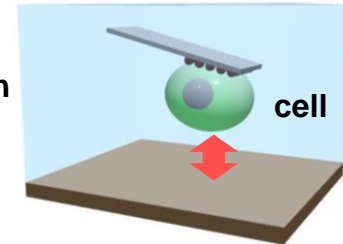
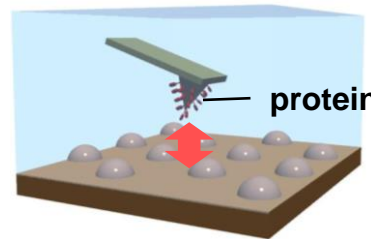
What is a key phenomenon at biocompatible polymer interfaces?

What is intermediate water?

## Analysis of biocompatible polymer/water interfaces

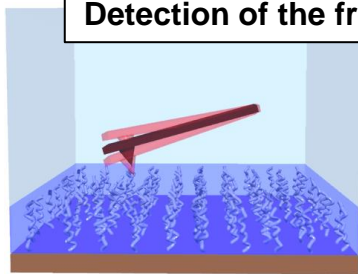


Atomic Force Microscopy (AFM)

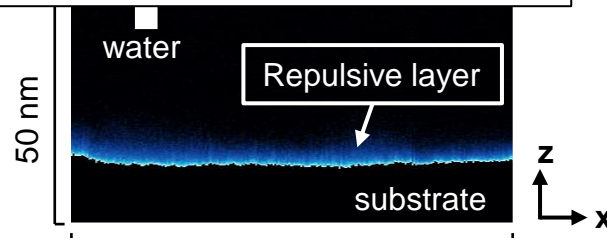


Interaction Measurement

Detection of the frequency shift of cantilever oscillation



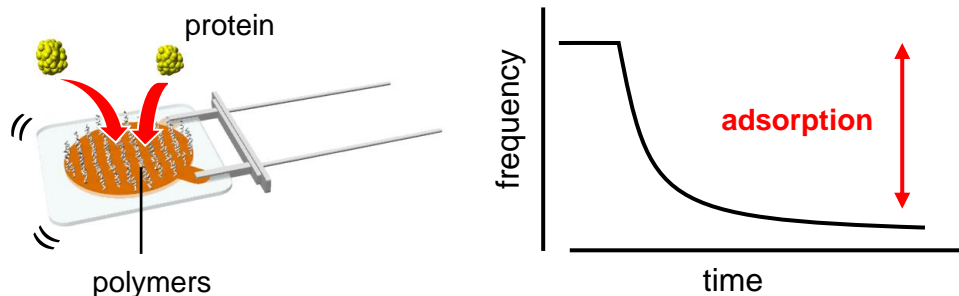
Grafted polymers



Frequency Modulation AFM

*We investigate the fine structures and interactions on biocompatible polymer/water interface.*

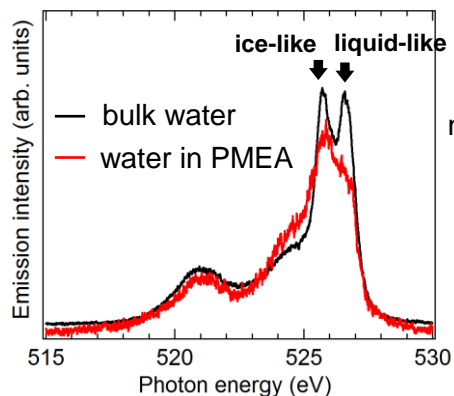
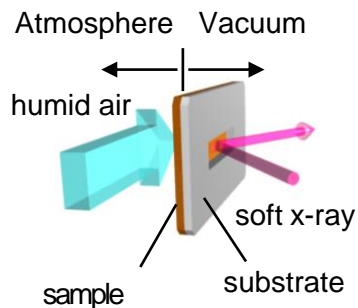
## Dynamical Analysis of protein adsorption



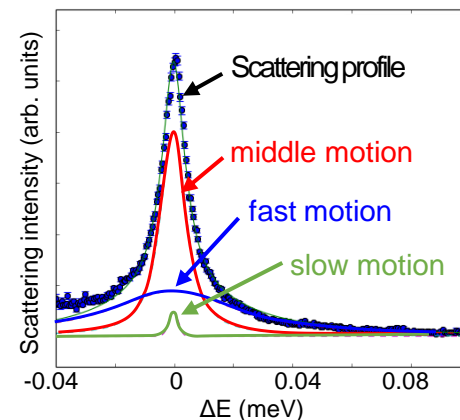
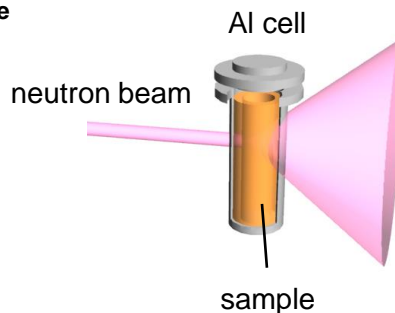
Quartz Crystalline Microbalance (QCM)

*We evaluate the dynamics of protein adsorption and the hydration state of polymers.*

## Analysis of structure and property of intermediate water



Soft X-ray emission spectroscopy @SPring8



Quasi-elastic neutron scattering @J-PARC

*We explore the structure and dynamics of intermediate water with high resolution apparatuses in SPring-8 and J-PARC.*