

Second Harmonic Generation Spectroscopic (SHG) Studies of Polycyclic Aromatic Hydrocarbons (PAH's) at Liquid Water Surfaces

Elizabeth A. Raymond, Department of Chemistry, Western Washington University

The ultimate goals of these studies are to measure the time scale of adsorption, interfacial concentrations, and changes in interfacial orientation as a function of bulk concentration for a series of PAH molecules, using surface specific and bulk spectroscopies in conjunction with surface tension measurements. Recent measurements of anthracene, dibenzofuran, and dibenzothiophene at the hexane /water interface show varying amounts of molecular re-orientation as the bulk concentration of PAH is increased, from little to no rotation with dibenzofuran to significant reordering with anthracene.

