

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

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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.

