

Abstract Submitted
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Acid-Base Interaction Induced Stability of Self-assembled Monolayer at Solid Interface Characterized by Sum Frequency Generation Spectroscopy HE ZHU, ALI DHINOJWALA, Univ of Akron — Long chain alcohols have been known to form hydrogen bonding with the hydroxyl groups on aluminum oxide surface. We used the interface sensitive technique, sum frequency generation (SFG) spectroscopy, to study the molecular structure of hexadecanol at liquid/sapphire interface and air/sapphire interface. We characterized the hydrocarbon chain conformation and the hydrogen bonding at different temperatures. Peak intensity changes were used to determine order-disorder transition of interfacial molecules. The transition hysteresis will also be discussed.

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