Abstract Submitted
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The Adsorption of Polyatomic Molecules on Carbon Surfaces[1]
JARED BURDE, MERCEDES CALBI, Univ of Denver — We study the adsorption of hydrocarbon chains on several carbon surfaces. We focus on the kinetics of adsorption, working to elucidate the factors that have the greatest influence on the time needed for the system to reach equilibrium. Preliminary results suggest that a major factor is the effective energy, which includes the binding energy, interaction energy with neighboring adsorbates, and other system parameters. We use computational and analytical techniques to determine the relationship between the adsorption rate and effective energy of several hydrocarbon chains (including methane, ethane, and propane) as they condense on carbon substrates (like graphene and carbon nanotubes).

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