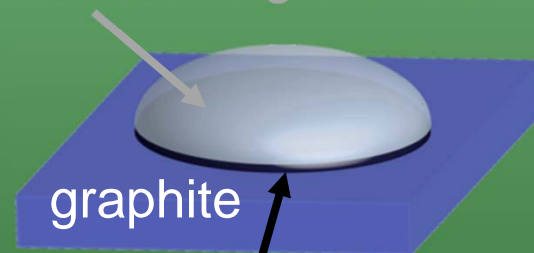


Adsorption of Thiophenes at Liquid/Solid Interfaces

Katherine E. Plass, Department of Chemistry, Franklin & Marshall College

The self-assembly of a series of structurally related alkyl-decorated thiophenes has been examined at the liquid-graphite interface to develop an improved understanding of this process, which can exert a profound influence on interfacial properties. We have focused on the self-assembly behavior of simple thiophene-containing species observed using scanning tunneling microscopy (STM). Comparison between the monolayers of 2-octadecyl thiophene and 2-octadecanoate thiophene suggests that the pattern of the resultant self-assembled monolayer is responsive to small chemical alterations within the alkyl chain. Future work will focus on explaining this behavior using computational modeling and on exploration of the self-assembly of related species.



monolayer observed by STM imaging

