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Phenomenological Modeling for Langmuir Monolayers¹ DIMITRI BAPTISTE, DAVID KELLY, TWYMUN SAFFORD, CHANDRA PRAYAGA, CHRISTOPHER N. VARNEY, AARON WADE, University of West Florida — Experimentally, Langmuir monolayers have applications in molecular optical, electronic, and sensor devices. Traditionally, Langmuir monolayers are described by a rigid rod model where the rods interact via a Leonard-Jones potential. Here, we propose effective phenomenological models and utilize Monte Carlo simulations to analyze the phase behavior and compare with experimental isotherms.

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