

Abstract Submitted
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Thermodynamic Investigation of n-Hexane and Cyclohexane on MgO (100) Surfaces¹ PETER N. YARON, JOHN Z. LARESE, Univ. of Tennessee, Knoxville — Thermodynamic properties of thin films of n-hexane and cyclohexane adsorbed on MgO (100) surfaces were investigated and compared using high-resolution volumetric isotherm techniques. A series of high-resolution adsorption isotherm measurements were recorded for n-hexane and cyclohexane between 197K to 255K and 230K to 280K respectively using an automated volumetric isotherm apparatus. Adsorption data was used to determine thermodynamic quantities e.g. the two-dimensional isothermal compressibility and isosteric heats of adsorption and to identify regions where phase transitions might occur. Evidence is found for the presence of two layering transitions in both systems.

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Peter N. Yaron
Univ. of Tennessee, Knoxville

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