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Polymer Crystallization in Ultrathin Films ALAN ESKER, SUOLONG NI, BINGBING LI, MELINDA FERGUSON-MCPHERSON, JOHN MORRIS, Virginia Tech - Chemistry — Confinement of a polymer to a thin film can dramatically alter the morphology and crystallinity. In this study, Brewster Angle Microscopy (BAM) is used to follow the dendritic crystallization of poly (ε-caprolactone) in Langmuir monolayers at the air/water interface. In a separate study, atomic force microscopy (AFM) and reflection absorption infrared spectroscopy (RAIRS) on Langmuir-Blodgett (LB) films show poly($_L$-lactic acid) form nearly 100% crystalline single chain helices. These studies identify two model systems for studying crystallization and enzymatic degradation in ultrathin systems.

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