

Abstract Submitted
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Inducing surface morphologies in polymer films through exposure to non-solvents CHAD DALEY, Univ of Waterloo, ZIN TUN, CNBC, JAMES FORREST, Univ of Waterloo — Non-solvents are generally considered to have no lasting effect on polymer materials and are commonly employed in the production or processing of thin film polymer samples. Through a combination of atomic force microscopy and neutron reflectivity experiments we show that some non-solvents have the ability to drastically alter a film's surface morphology on the nanometer scale. An explanation for the structuring process is presented and reinforced through theoretical considerations of surface chains. These results suggest that caution should be exercised when making use of non-solvents wherever nanoscale surface properties are of importance.

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