

Abstract Submitted
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Solvent Annealing Block Copolymer Thin Films of Poly(isoprene-b-lactide) KEVIN CAVICCHI, THOMAS RUSSELL, Dept. of Polymer Science and Eng. UMASS - Amherst — Long-range order is desirable in block copolymer thin films for building nanostructured templates or scaffolds. Exposing films to solvent vapor or “solvent annealing” is an effective way to increase chain mobility to obtain large, defect free grains and mediate interactions to achieve specific domain orientations. Results will be presented on solvent annealing thin films of poly(isoprene-b-lactide). By choosing the proper solvent, and controlling the solvent concentration and film thickness, hexagonally packed cylinders oriented parallel and perpendicular to the substrate with good long-range order can be obtained. In addition, efforts to crosslink the polyisoprene and degrade the polylactide to generate a nanoporous film will be discussed.

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