

Abstract Submitted  
for the MAR15 Meeting of  
The American Physical Society

**Thin Films of Bottlebrush Block Copolymers with Homopolymer** GAJIN JEONG, Univ of Mass - Amherst, BENJAMIN R. SVEINBJORNSON, ROBERT HOWARD GRUBBS, California Institute of Technology, THOMAS P. RUSSELL, Univ of Mass - Amherst, POLYMER SCIENCE AND ENGINEERING DEPARTMENT, UNIVERSITY OF MASSACHUSETTS AMHERST TEAM, CHEMISTRY DEPARTMENT, CALIFORNIA INSTITUTE OF TECHNOLOGY TEAM — We have investigated the self assembled structures of bottlebrush block copolymers (BrBCPs) in thin films by blending deuterated homopolymer. By use of neutron reflectivity (NR), the assemblies with microdomain oriented parallel to the substrate, the distribution of the homopolymer in the bottlebrush block copolymer was obtained. Polynorbornene-backbone-based bottlebrush BCPs with polylactide (PLA) and polystyrene (PS) side chains of different molecular weights were investigated. Small angle x-ray scattering was used to complement the NR studies.

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Date submitted: 14 Nov 2014

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