

Abstract Submitted
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Electric Field induced alignment and morphological transitions of triblock copolymers. AKINBODE ISAACS-SODEYE, SHUJUN CHEN, SAMUEL GIDO, Univ. of Massachusetts, Amherst — The electric field induced microdomain alignment of poly (styrene-*b*-ethylene-co-butylene -*b*-styrene)(SEBS) and poly (styrene-*b*-isobutylene-*b*-Styrene)(SIBS) triblock copolymers were investigated using AFM and cross-sectional TEM. For the SIBS samples, evidence of a transition from cylindrical to spherical morphology of the minor polystyrene microdomains was observed. These spherical domains appear to impinge on one another, much like a string of beads, and preferentially align with the direction of the applied electric field. On the other hand the SEBS samples, which had lower molecular weights, showed significant microdomain orientation in the direction of the applied electric field.

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