

Abstract Submitted
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The structure and dynamics of thin poly(styrene)-b-(polybutadiene) copolymer films studied by x-ray scattering¹ SANGHOON SONG, YOUNGSUK BYUN, JEEUN KIM, DAEYONG EOM, WONSUK CHA, HYUNJUNG KIM, Dept. of Physics & Interdisciplinary Program of Integrated Biotechnology, Sogang University, Korea — We have investigated the structure and dynamics of thin diblock copolymer films of poly(styrene)-b-poly(butadiene) using x-ray reflectivity, diffuse scattering, grazing incidence small angle scattering (GISAXS), and x-ray photon correlation spectroscopy (XPCS), respectively. The measurements were performed at temperatures below and above the order-disorder transition temperature (ODT) of bulk with different film thicknesses. The x-ray reflectivity and GISAXS results show that the structural changes appear at lower temperature than ODT of bulk. These results will be discussed with the findings from the XPCS.

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