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Phase Behavior of Binary Blend Consisting of Asymmetric Polystyrene-block-poly(2-vinylpyridine) Copolymer and Asymmetric Deuterated Polystyrene-block-poly(4-hydroxystyrene) Copolymer Having Hydrogen Bonding JONGHEON KWAK, SUNG HYUN HAN, HONG CHUL MOON, Pohang Univ of Sci & Tech, VICTOR PRYAMITSYN, VENKAT GANESAN, University of Texas, JIN KON KIM¹, Pohang Univ of Sci & Tech — We investigated the phase behavior of a binary blend of asymmetric polystyrene-block-poly(2-vinylpyridine) copolymer (PS-b-P2VP) and deuterated polystyrene-block-polyhydroxystyrene copolymer (dPS-b-PHS) blends. The blend showed highly asymmetric lamellar microdomains. To explain the unexpected results, we study, via small angle X-ray scattering (SAXS) and neutron reflectivity (NR), the exact location of shorter dPS block in the mixture near the interface of the microdomains.

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