

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**Phase Behavior of Polystyrene-block-poly(2-vinylpyridine) coordinated by Metal Chloride<sup>1</sup>** DONG HYUN LEE, WONCHUL JOO, JIN KON KIM, Pohang Univ. Sci. Tech., JUNE HUH, Seoul National University, DU YEOL RYU, Yonsei University — The morphology and order-to-disorder transition (ODT) of asymmetric polystyrene-block-poly(2-vinylpyridine) copolymers (PS-P2VP) varying chain length of P2VP coordinated with CdCl<sub>2</sub> were investigated by rheometry, synchrotron small angle X-ray scattering (SAXS) and transmission electron microscopy (TEM). D-spacing of PS-P2VP coordinated with tiny amount of CdCl<sub>2</sub> increased greatly. With increasing amount of CdCl<sub>2</sub>, spherical microdomains were changed to hexagonally-packed cylinders. This is due to intra-chain coordination between CdCl<sub>2</sub> and pyridine ring.

<sup>1</sup>This work was supported by Creative Research Initiative Program supported by KOSEF.

Jin Kon Kim  
Pohang Univ. Sci. Tech.

Date submitted: 08 Feb 2008

Electronic form version 1.4