

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Ion Conduction in Perfectly Aligned Block Copolymer-Ionic Liquid Mixtures JAE-HONG CHOI, Department of Materials Science and Engineering, University of Pennsylvania, YOSSEF A. ELABD, Department of Chemical and Biological Engineering, Drexel University, KAREN I. WINEY, Department of Materials Science and Engineering, University of Pennsylvania — Our earlier work to correlate the transport measurements in diblock copolymer-ionic liquid mixtures was limited by our bulk samples that have only partial alignment. Here, thin films with perfect alignment of lamellar microdomains from mixtures of a poly(methyl methacrylate-*b*-styrene) diblock copolymer and an ionic liquid, 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, have been studied. The morphologies will be characterized by cross-sectional transmission electron microscopy. Ion conduction will be presented within and through the thin film.

Jae-Hong Choi
Dept of Materials Science and Engineering, University of Pennsylvania

Date submitted: 26 Nov 2010

Electronic form version 1.4