Supporting Information

Self-assembled Structures in Block Copolymer/Graft Copolymer Blends with Hydrogen Bonding Interaction

Yen-Tzu Chen and Chieh-Tsung Lo*

Department of Chemical Engineering, National Cheng Kung University
No. 1, University Road, Tainan City 701, Taiwan

Fourier Transform Infrared Spectroscopy (FTIR) Measurements

Infrared spectra were recorded on a Scinco/Nicolet 5700 spectrometer at a resolution of 2 cm\(^{-1}\). A small amount of polymer blends was ground together with KBr powder. Subsequently, a ca. 0.5-1.0 mm thick tablet was prepared by compression. The tablet was gently taken out of the mold and was ready for analysis.

FTIR Spectroscopic Studies of the Hydrogen Boding

PS-b-PEO/PS-g-PAA blends
Figure S1. FTIR spectra of neat PS-\(b\)-PEO and its blend with 50 wt% PS-\(g\)-PAA.

**PS-\(b\)-PVP/PS-\(g\)-PAA blends**

Upon forming hydrogen bonds with the carboxylic acid groups of PAA, the characteristics peak of the pyridine ring at the wavenumber of 993 cm\(^{-1}\) shifts to 1006 cm\(^{-1}\).

Figure S2. FTIR spectra of neat PS-\(b\)-PAA and its blend with 50 wt% PS-\(g\)-PAA.
PS-b-PMMA/PS-g-PAA blends

Figure S3. FTIR spectra of (a) neat PS-b-PAA and its blend with 50 wt% PS-g-PAA; and (b) neat PMMA and its blend with PAA.