Electronic Supplementary Material (ESI) for Soft Matter

Supporting Information

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

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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

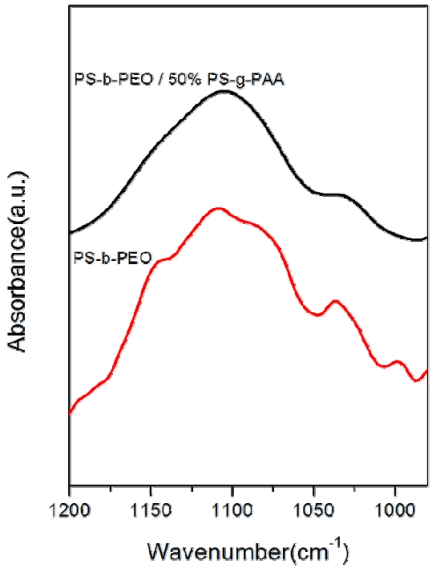


Figure S1. FTIR spectra of neat PS-*b*-PEO and its blend with 50 wt% PS-*g*-PAA.

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}.

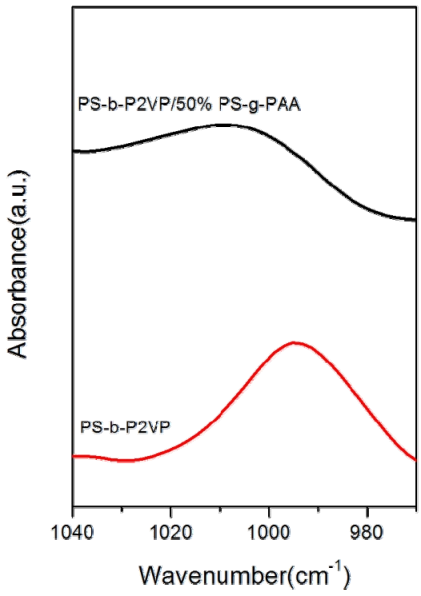
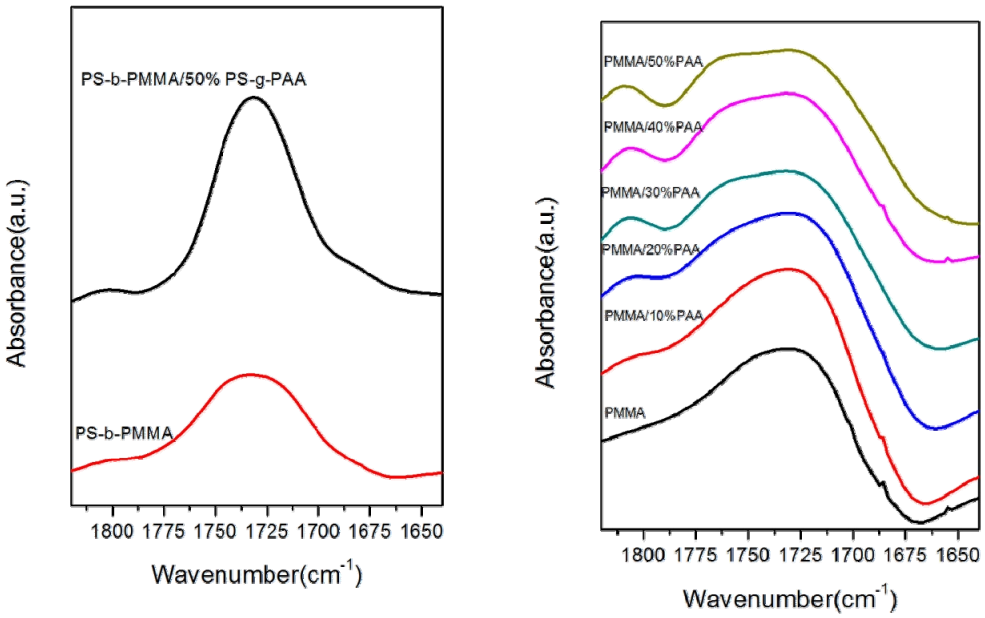


Figure S2. FTIR spectra of neat PS-*b*-PAA and its blend with 50 wt% PS-*g*-PAA.

PS-b-PMMA/PS-g-PAA blends



(a) (b)

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.