Supporting Information

for

Photocurrent Generation in Multilayer Self-Assembly Films Fabricated from Water-soluble Poly (phenylene vinylene)

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Supplementary Figure 1. The GPC trace for the BH-PPV

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Supplementary Figure 2. The TGA thermogram of the BH-PPV

Supplementary Figure 3. Fluorescence decay curve of BH-PPV
Supplementary Figure 4. Tapping-mode AFM images of BH-PPV and BH-PPV/C\textsubscript{60}-HS films

Picture A is tapping-mode AFM image of BH-PPV on mica, and picture B is the corresponding 3D image of A. Picture C is tapping-mode AFM image of BH-PPV/C\textsubscript{60}-HS bilayer on mica, and picture D is corresponding 3D images of C.

Electrochemical Measurements. Cyclic voltammograms (CV) were recorded on an IM 6e Zahner Potentiostat. Dried DMF was used to prepared a solution of BH-PPV (4 × 10\textsuperscript{-4}M) and C\textsubscript{60}-HS (5 × 10\textsuperscript{-5}M) containing Bu\textsubscript{4}NPF\textsubscript{6} (0.1M) as a supporting electrolyte. The scan rate of BH-PPV and C\textsubscript{60}-HS was 20 mV/s and 200mV/s, respectively. A three-electrode configuration consisting of a glassy carbon working electrode, a Pt wire counter electrode, and an Ag wire quasi-reference electrode was used. All potentials reported are referenced vs. Ag wire. N\textsubscript{2} bubbling was used to remove to oxygen from the electrolyte solutions in the electrochemical cell.
Supplementary Figure 5. The Cyclic voltammograms of BH-PPV: the oxidation process.

Supplementary Figure 6. The Cyclic voltammograms of BH-PPV: the reduction process.

Supplementary Figure 7. The Cyclic voltammograms of C_{60}-HS