Non-conjugated anionic polyelectrolyte as an interfacial layer for the organic optoelectronic devices

*Gyeong Eun Lim,[†] Ye Eun Ha,[†] Mi Young Jo,[†] Juyun Park,[‡] Yong-Cheol Kang,[‡] and Joo Hyun Kim[†,]**

[†]Department of Polymer Engineering and [‡]Department of Chemistry, Pukyong National University, Busan 608-739, Korea.

* Corresponding author email : jkim@pknu.ac.kr.

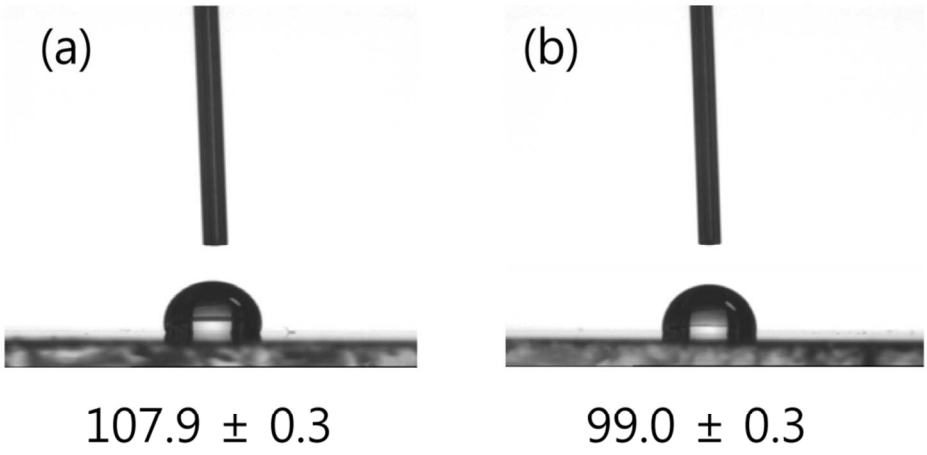

Figure S1.The water contact angle on (a) the active layer (P3HT:PCBM blend) and (b) the PSS-Na coated active layer.

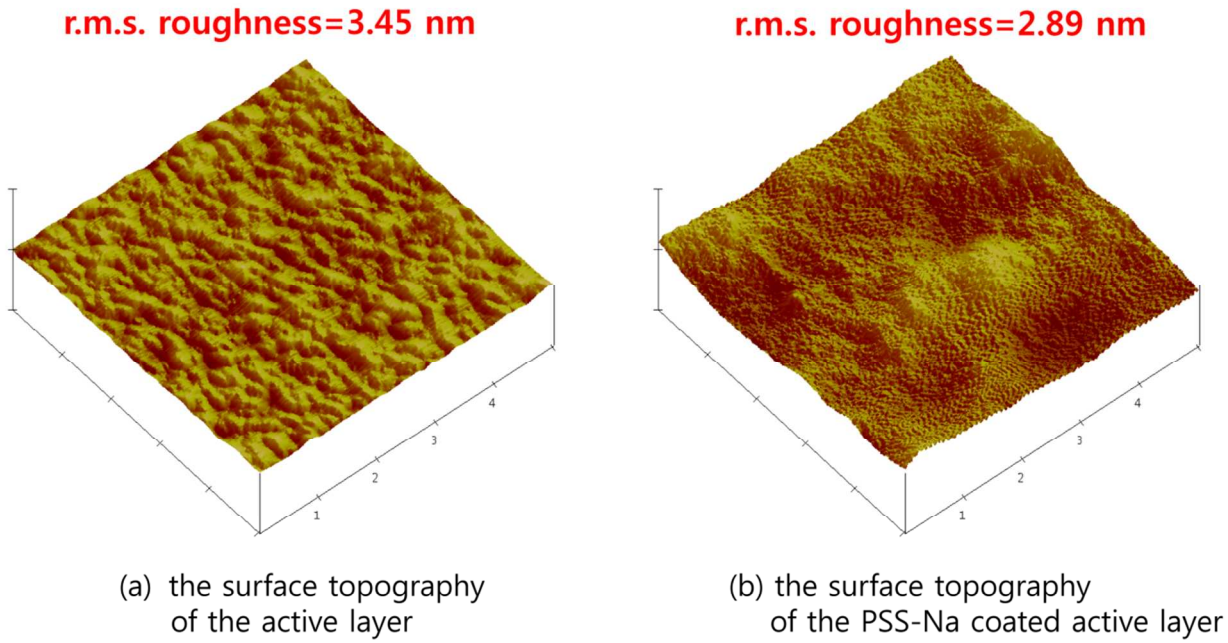

Figure S2. The surface topography of (a) the active layer (b) the PSS-Na film spin-coated from the concentration of 0.5 mg/mL on the active layer. (x, y = 1 μm/div., z = 100 nm/div.)

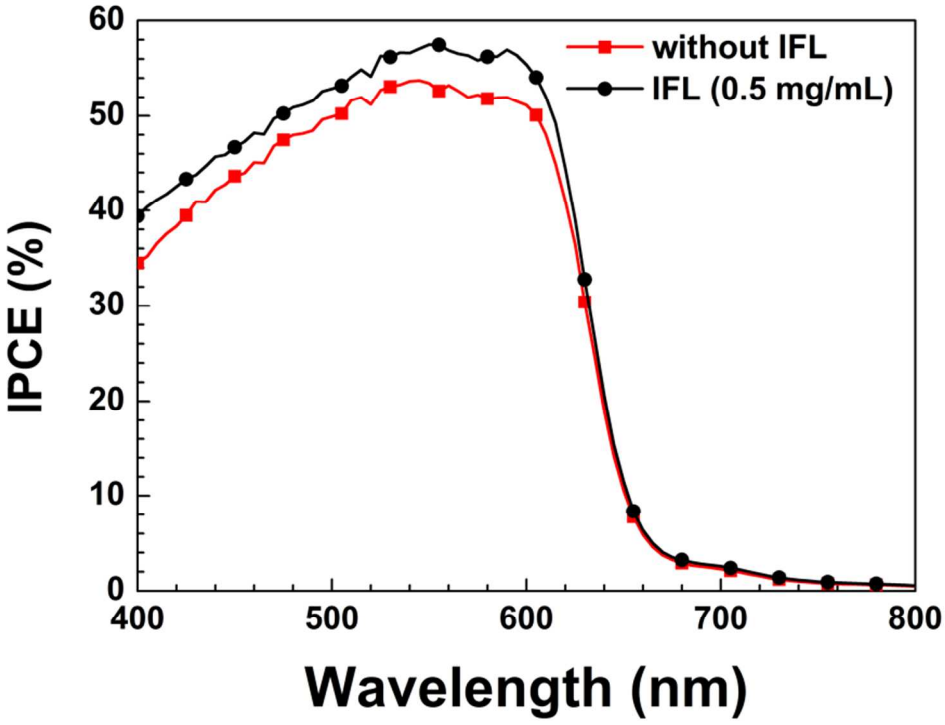

Figure S3. IPCE spectrum of PSCs. The incident photon to collected electron efficiency (IPCE), external quantum efficiency, was calculated by:

$$\text{IPCE}\ (\%) = 1240\ \times J_{SC}/(\frac{\lambda}{I_P})$$

where J_{sc} ($\mu A/cm^2$) is the short circuit current density measured at the wavelength λ (nm) and I_P (W/m^2).