

Supporting Information

Organic light-emitting transistors with simultaneous enhancement of optical power and external quantum efficiency via conjugated polar polymer interlayer

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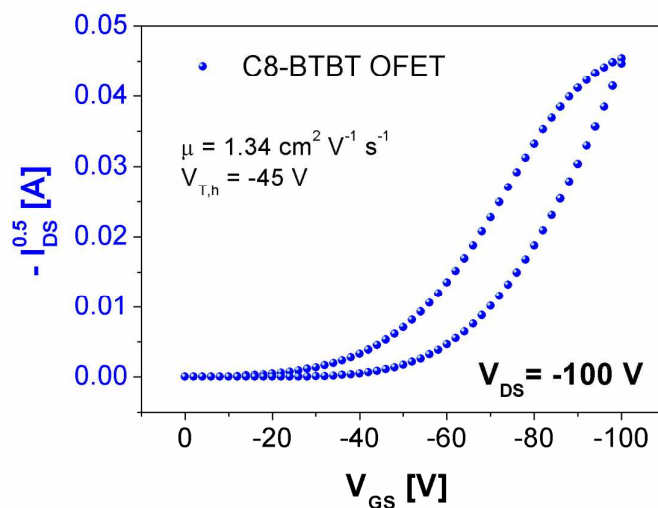


Figure S1. p -type saturation transfer curve at $V_{DS} = -100 \text{ V}$ of bottom-gate top-contact C8-BTBT OFET.

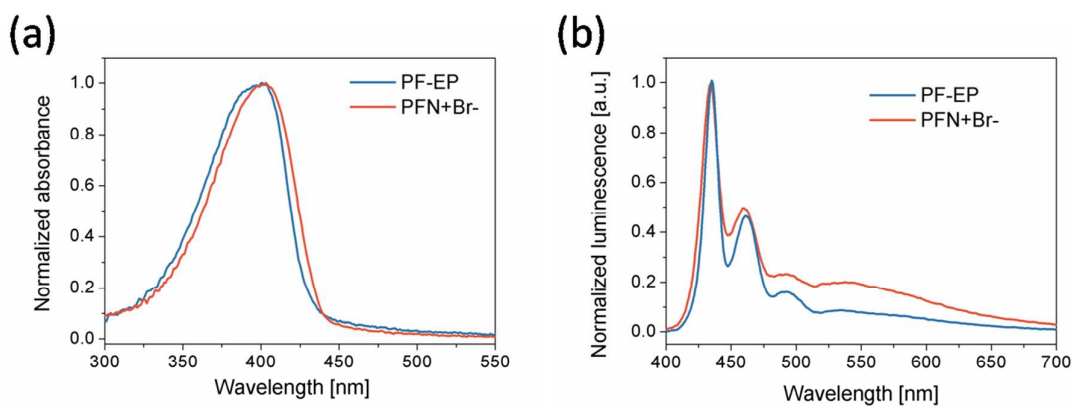


Figure S2. Normalized absorption (a) and emission (b) spectra of PF-EP (blue) and PFN⁺Br⁻ (red) in thin films. Excitation wavelength for emission spectra: 380 nm.

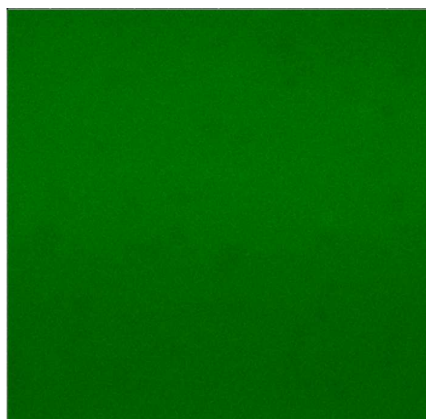


Figure S3. CLSM image, recorded in the area inside the channel, of the reference bilayer device (no additional electrode interlayer) in the spectral region of the EML emission. Laser excitation wavelength: 405 nm. Image dimensions: 50 x 50 μm .

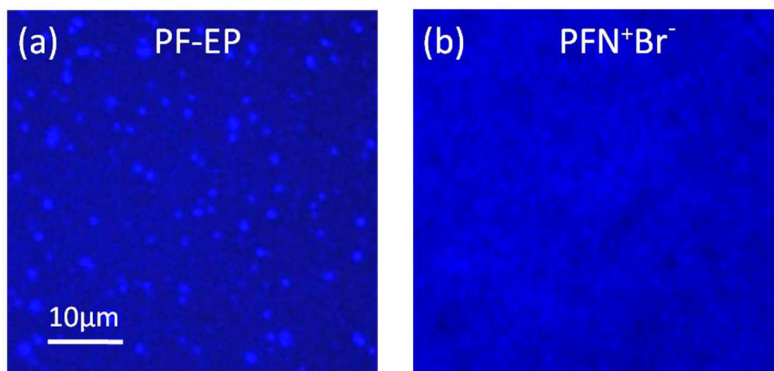


Figure S4. CLSM images, recorded in the area under the drain electrode, in the emission spectral range of the EILs from PF-EP (a) and PFN^+Br^- (b) incorporated OLETs. Laser excitation wavelength: 405 nm. Image dimensions: 50 x 50 μm .

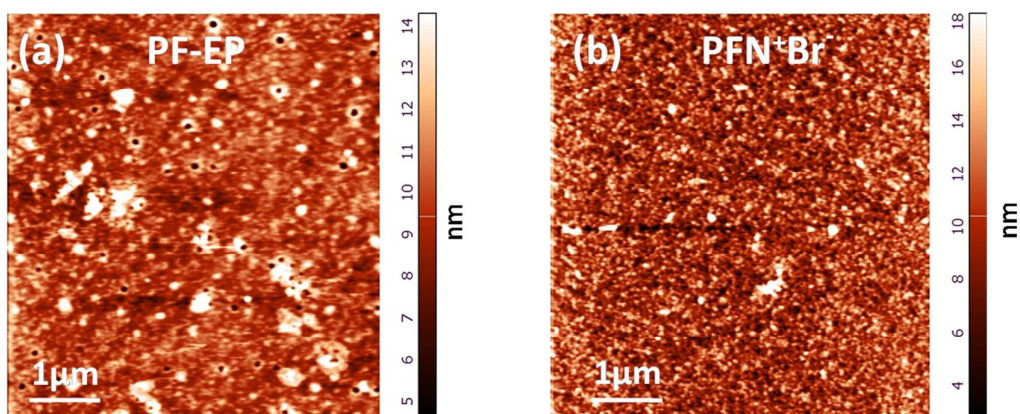


Figure S5. Atomic force microscopy (AFM) images (10 μm x 10 μm) of PF-EP (a) and PFN⁺Br⁻ (b) films recorded in semi-contact mode in the area inside the corresponding OLET channel. The root mean square (RMS) is respectively 3.0 nm and 2.9 nm for PF-EP and PFN⁺Br⁻.

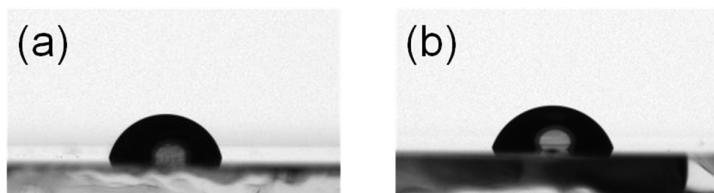


Figure S6. Contact angles of PFN⁺Br⁻ (a) and PF-EP (b) on glass.