

Fig. S1 Twice repetitive programming and erasing process for 50 nm C8-PDI device.

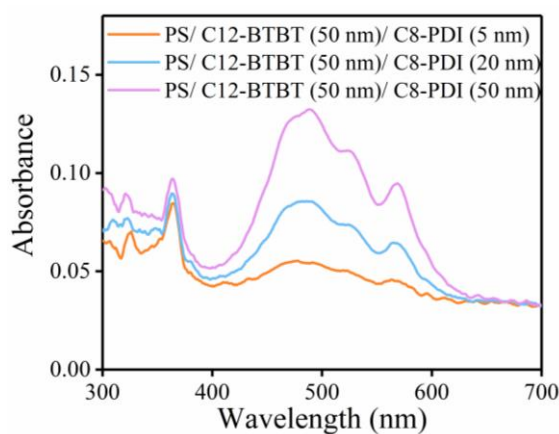


Fig. S2 Absorption spectra of tri-layer films of PS, 50 nm C12-BTBT with 5 nm, 20 nm and 50 nm C8-PDI, respectively.

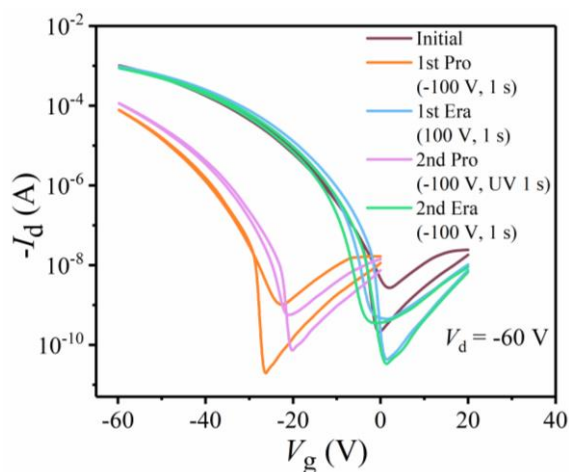


Fig. S3 Shifts of transfer curve under negative gate bias with light illumination.

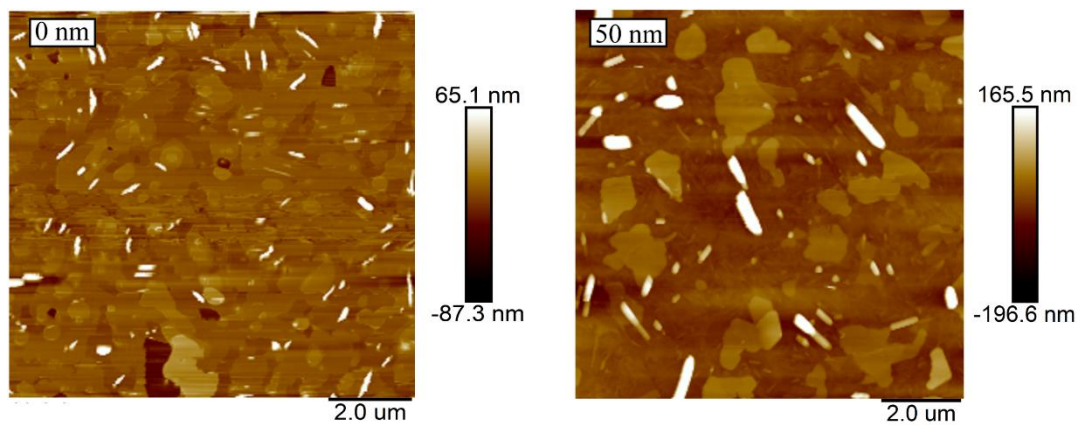


Fig. S4 AFM height images of 0 nm and 50 nm thick C8-PDI deposited on 50 nm thick C12-BTBT film. The scanning size is $10 \times 10 \mu\text{m}^2$