

Supporting Information

Ultrasensitive Narrowband Organic Phototransistor for Solar-Blind Ultraviolet Detection and Imaging

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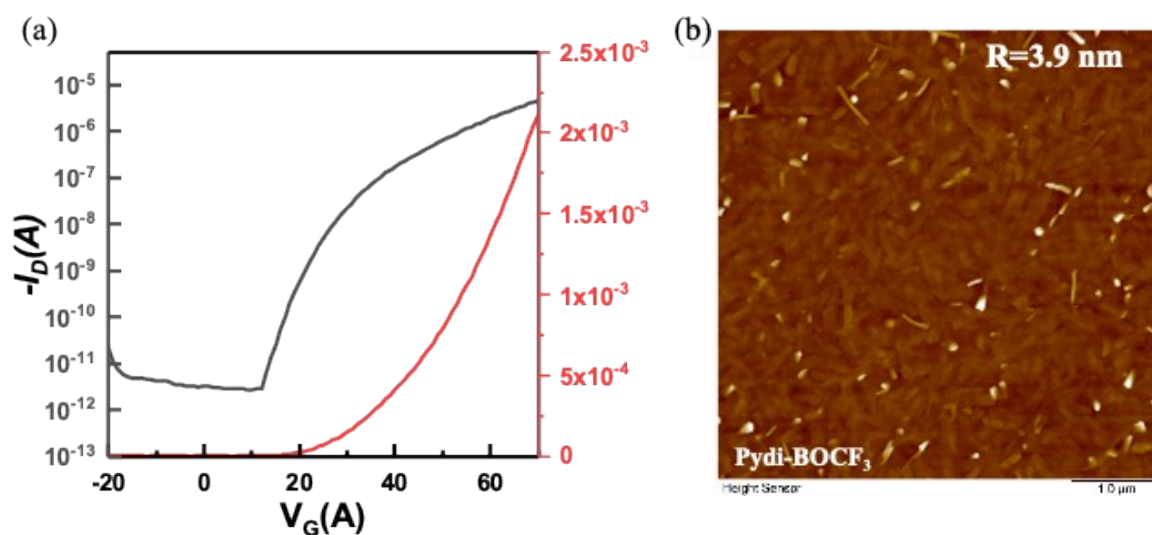


Figure S1. (a) The transfer characteristics curve of PyDI-BOCF₃ and (b) AFM analysis of the film.

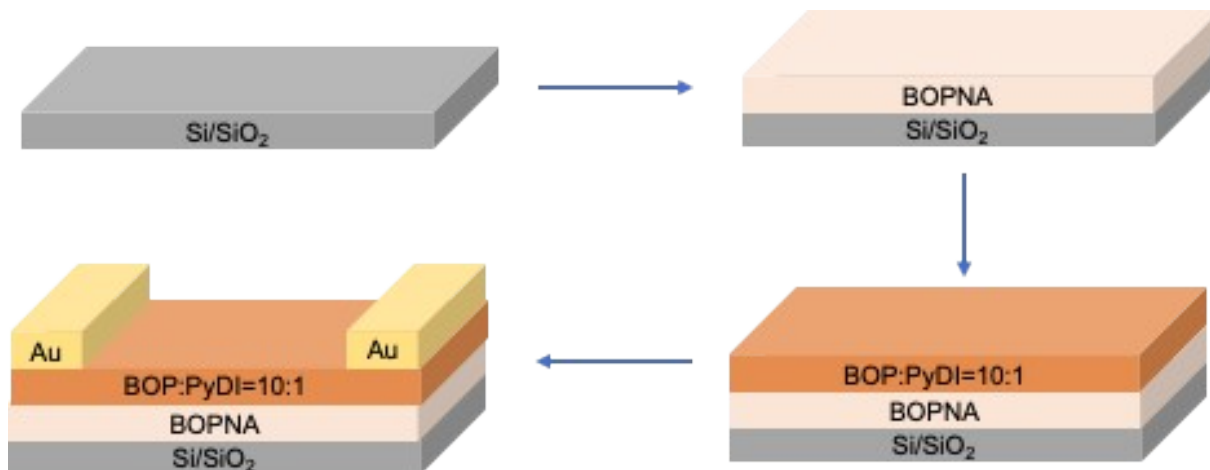


Figure S2. Fabrication process of the hybrid-layered OPT pixel as described in the experimental section.

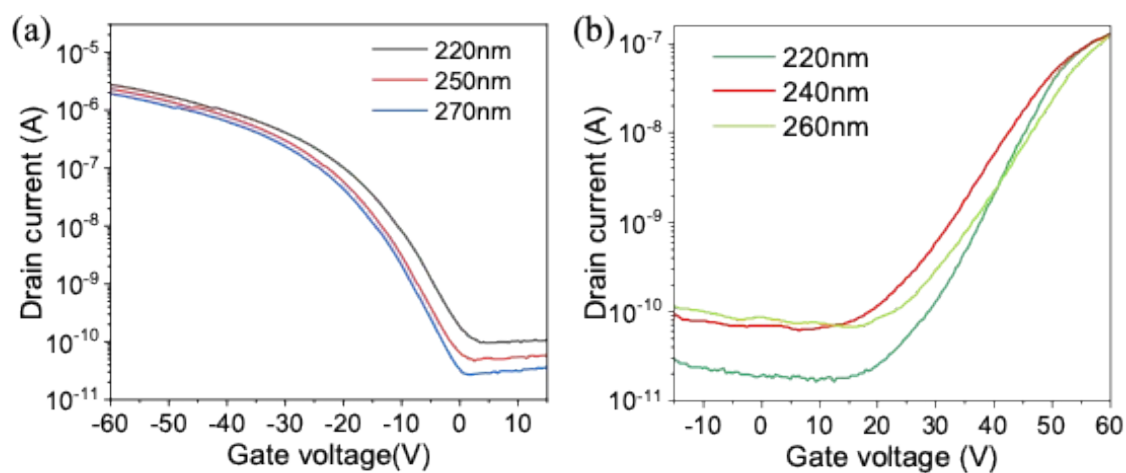


Figure S3. The photoreponse tests of (a) single-layer BOPNA devices and (b) single-layer PyDI-BOCF3 devices at 220 nm, 250 nm, and 270 nm under 50 μ W intensity.

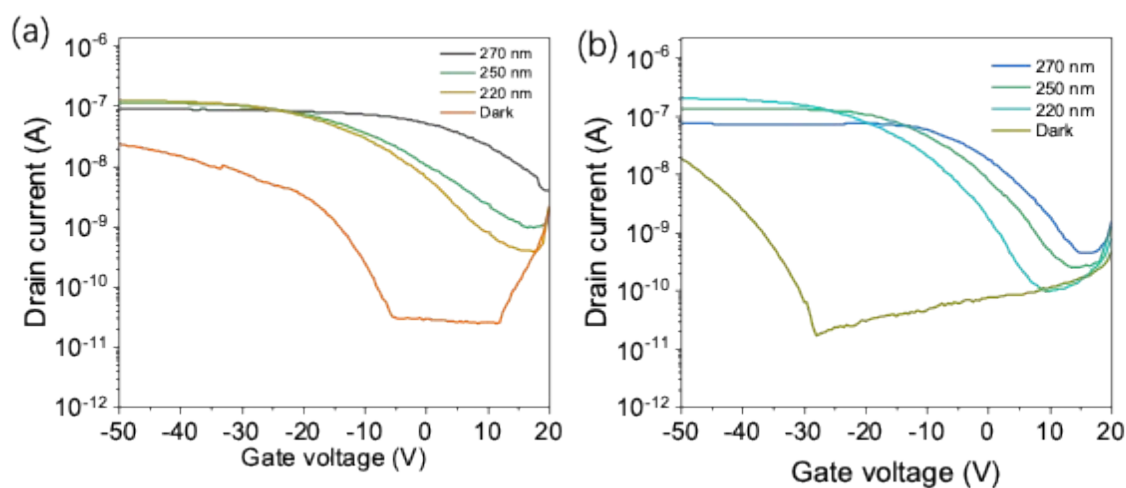


Figure S4. The dark current and photocurrent at 220 nm, 250 nm, and 270 nm under 50 μW intensity for mixed heterojunctions with different ratios: (a) BOPNA:PyDI-BOCF3 = 50:1 and (b) BOPNA:PyDI-BOCF3 = 100:1.

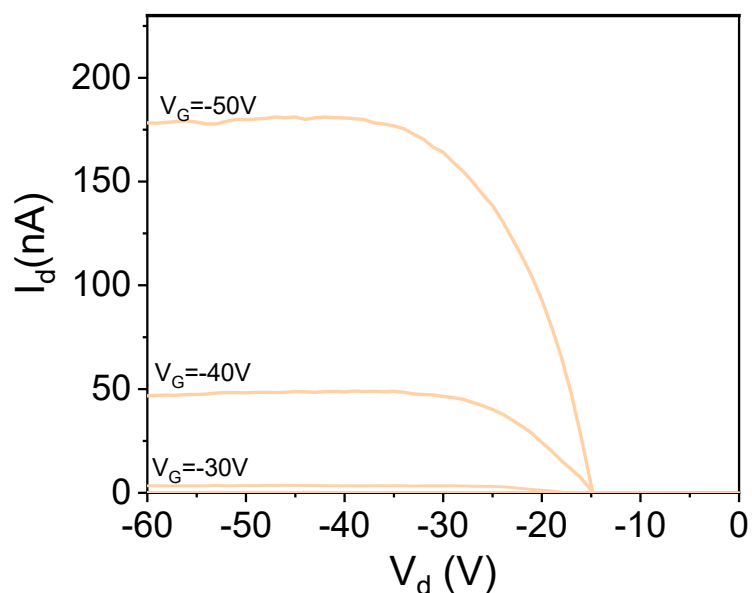


Figure S5. The output curves of SBUV HLPT.

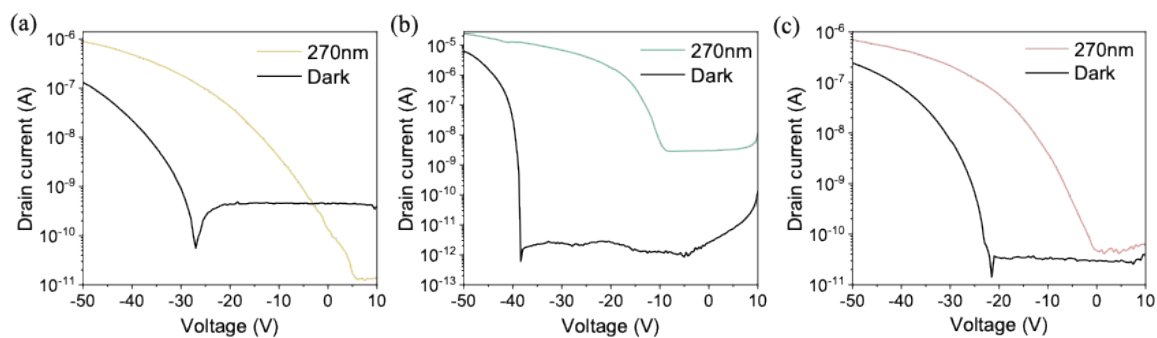


Figure S6. (a) Illumination power-dependent photoresponse characteristics of the HL-OPT. (b) The photocurrent response of HL-OPT to light ranging from 200 nm to 400 nm Under an illumination intensity of 50 μW .

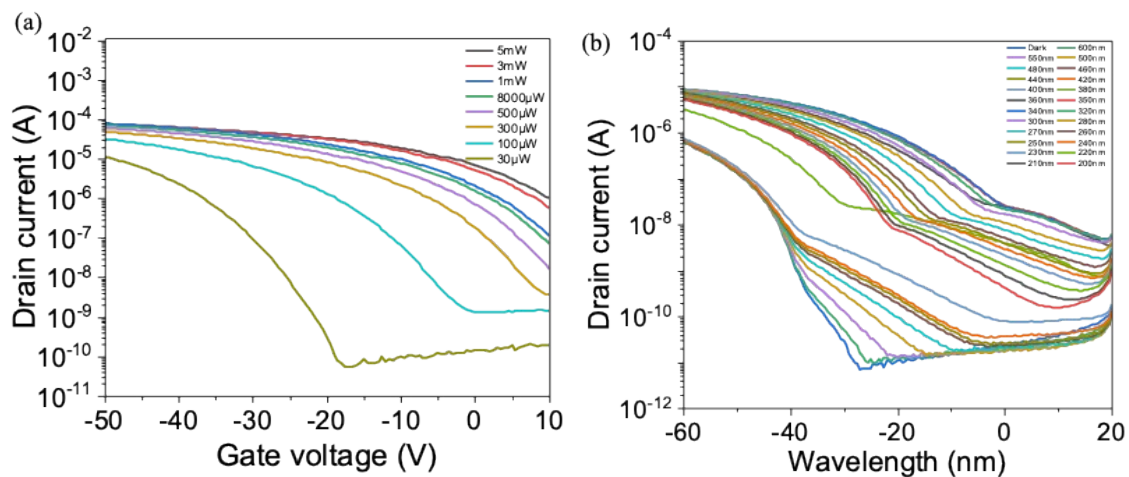


Figure S7. (a) Illumination power-dependent photoresponse characteristics of the HL-OPT. (b) The photocurrent response of HL-OPT to light ranging from 200 nm to 400 nm Under an illumination intensity of 50 μ W.