

Supplementary Information

Study of Vertical Phototransistors Based on Integration of Inorganic Transistors and Organic Photodiodes

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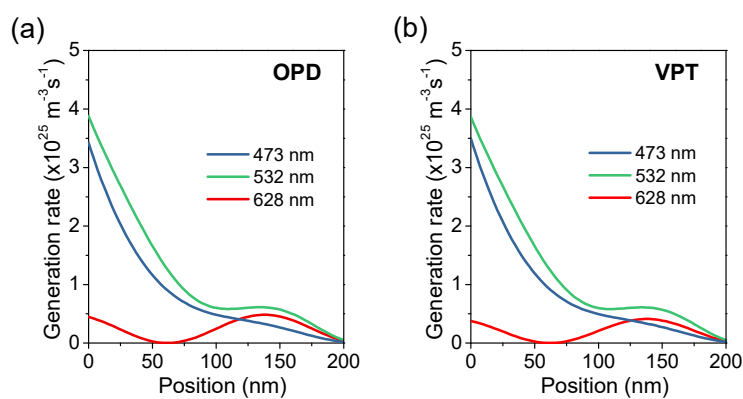


Figure S1. Calculated exciton generation rate distribution at various illuminated wavelengths in the P3HT:PC₆₁BM layer of (a) the OPD with an ALD-ZnO layer and (b) the VPT. The interface between the ALD-ZnO and P3HT:PC₆₁BM layers is positioned at zero. The P3HT:PC₆₁BM layer has a thickness of 200 nm.

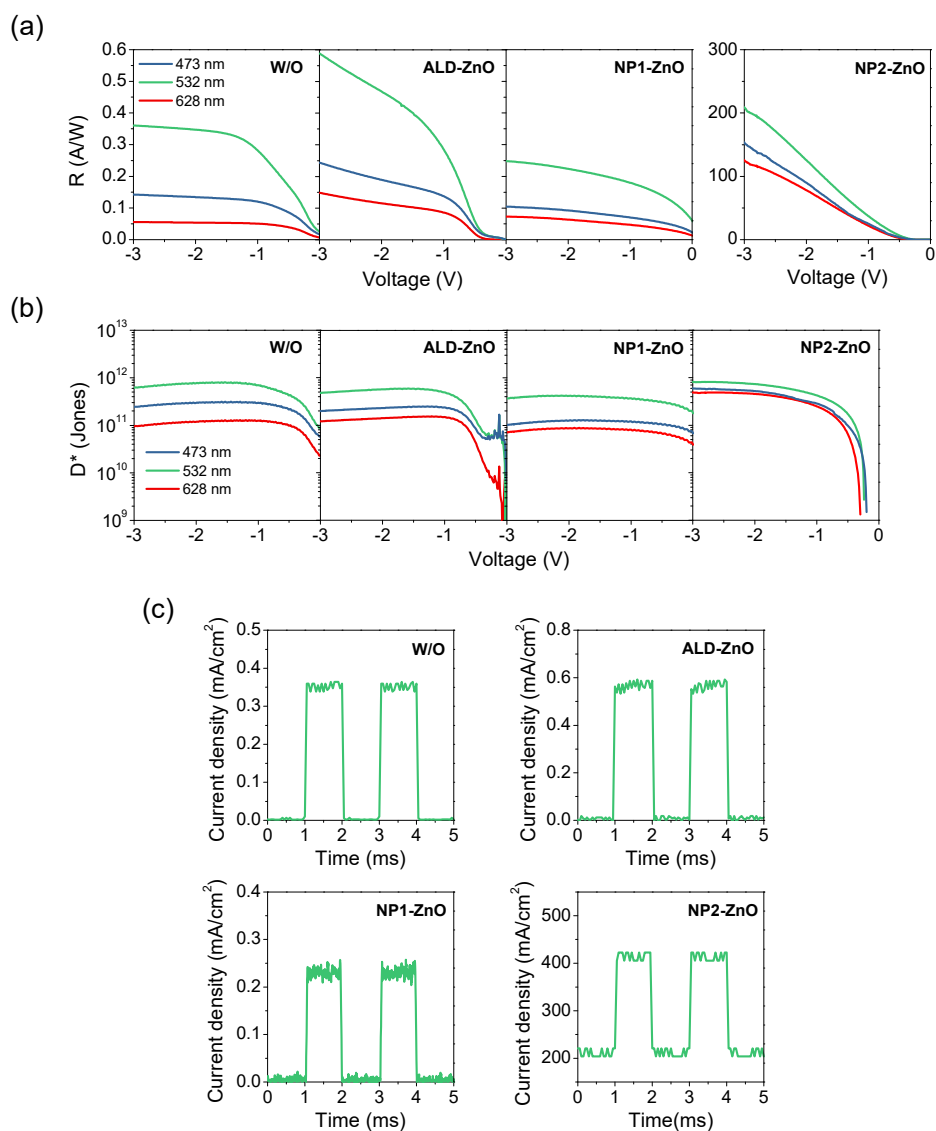


Figure S2. (a) Responsivity, (b) specific detectivity, and (c) transient response of P3HT:PC₆₁BM OPDs without and with different electron injection layers (ALD-ZnO, NP1-ZnO, NP2-ZnO). The transient response was measured under 532 nm illumination.