Utilizing Photocurrent Transients for Dithiolene-Based Photodetection: Stepwise Improvements at Communications Relevant Wavelengths

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Supplementary Information

SEM Images

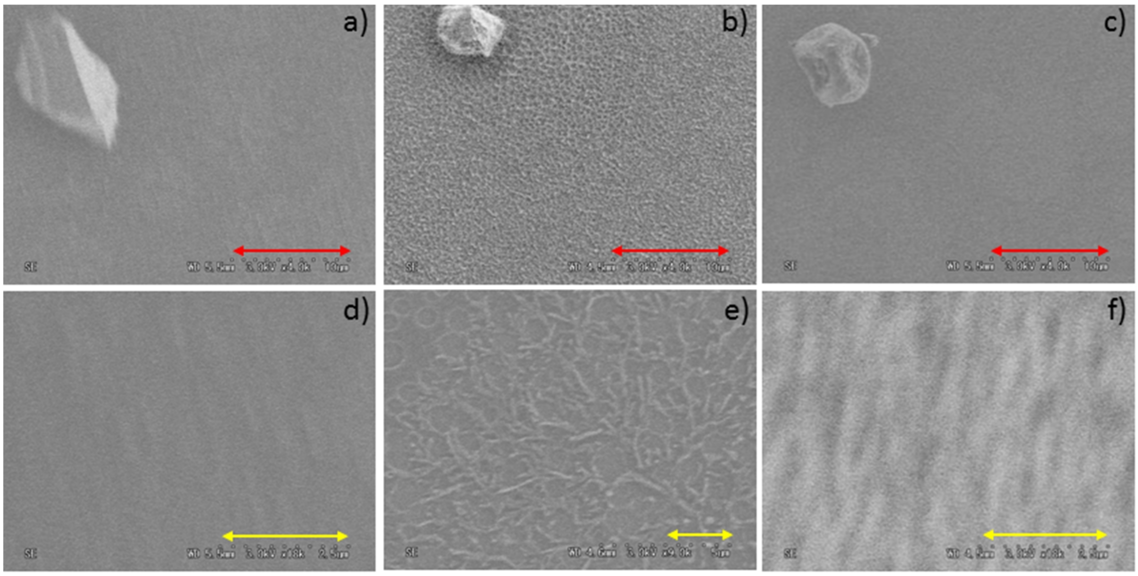

Figure S1: SEM images of spin-cast films of BDN in 1,1,2-TCE (10mg/ml) on ITO coated glass at low (a-c) and high (d-f) magnification, spun at a,d) 1000rpm; b,e) 500rpm; c,f) 1000rpm as blend with 1mg/ml carbon black. For low magnification, defects were deliberately found for contrast. Red scale bar depicts 10 µm, yellow scale bar depicts 2.5 µm.

Current/Voltage Measurements

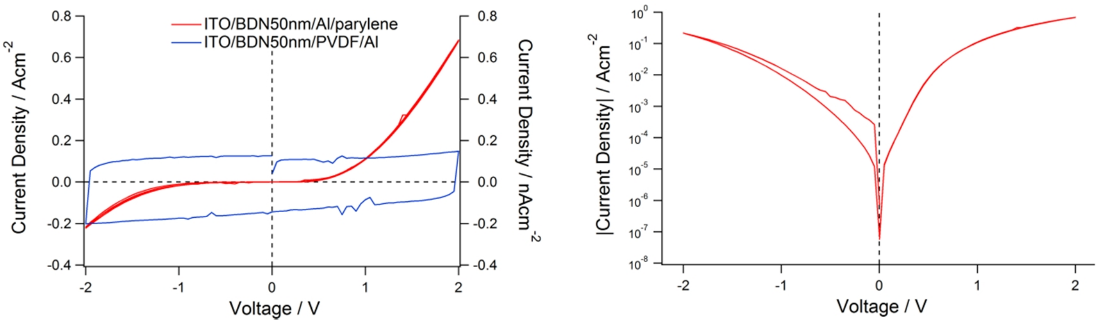

Figure S2: (left) Current/Voltage measurements of parylene-coated Schottky-type device of structure ITO/BDN50nm/Al, compared to transient-type device of structure ITO/BDN50nm/PVDF/Al, tested in air in the absence of light; (right) log plot of Schottky-type device, showing larger dark current (J_d = 70 nAcm^{-2}), compared to transient-type device (J_d = 40 pAcm^{-2}) at zero applied bias.