Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Lattice Strain-Induced High-Performance Low-Operating-Voltage Organic Field-Effect Transistors by Solution-Sheared Organic Single Crystal

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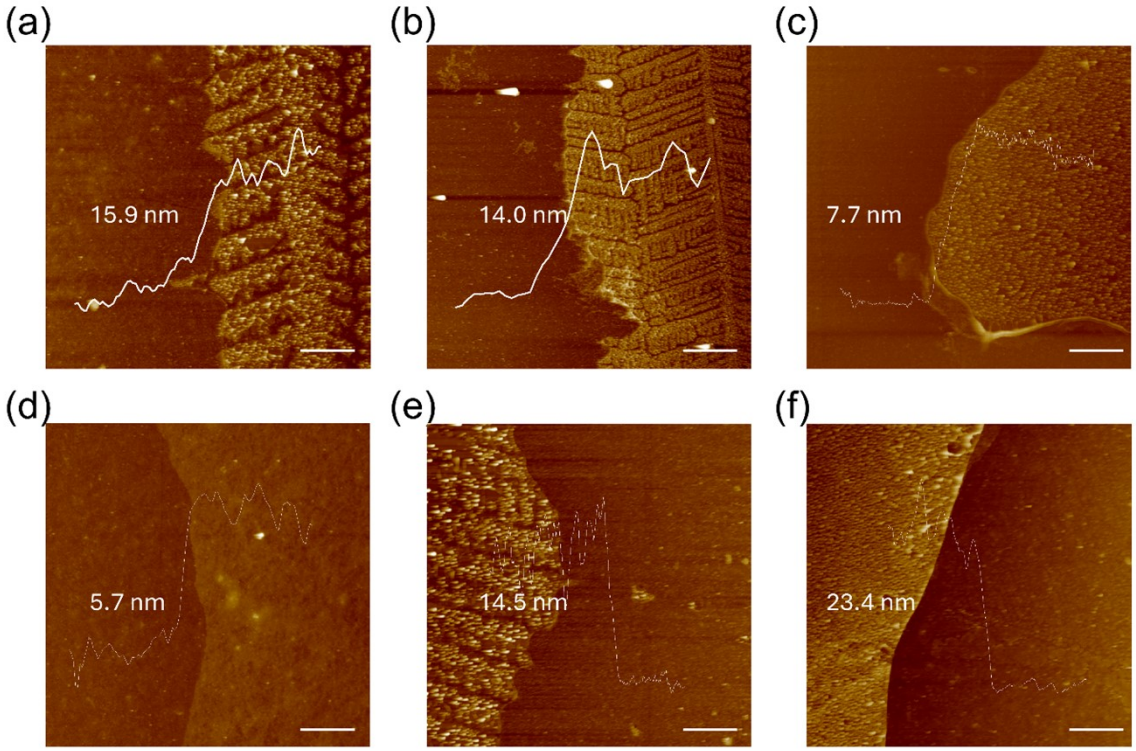

Figure S1 AFM image of C_8-BTBT single crystal and PS layer at shear rate of (a) 300 μm s^{-1}, (b) 500 μm s^{-1}, (c) 700 μm s^{-1}, (d) 800 μm s^{-1}, (e) 1000 μm s^{-1}, (f) 1500 μm s^{-1}, scale bar is 1 μm.

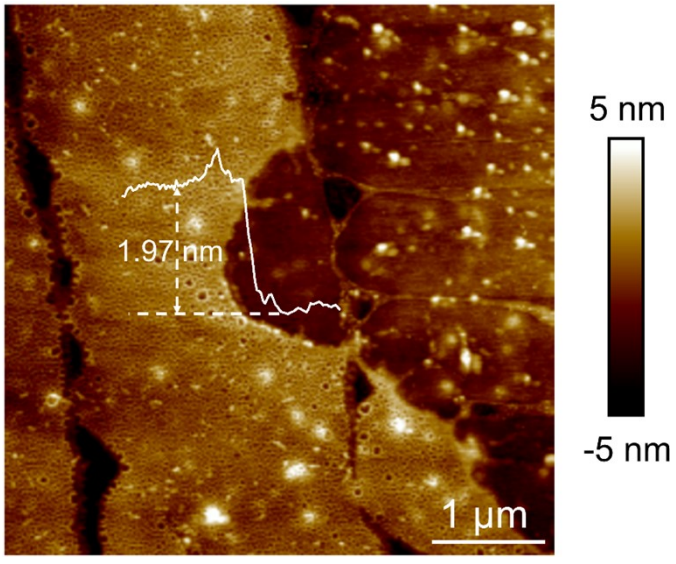

Figure S2, AFM image of PS thickness at 700 μm s^{-1}.

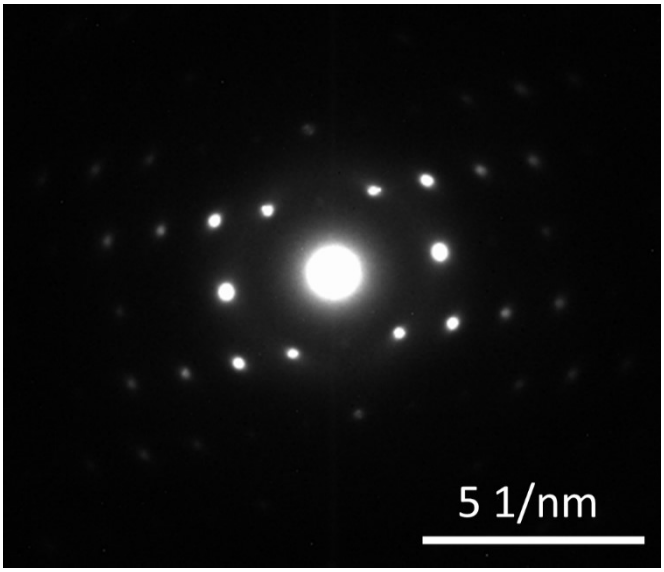

Figure S3 Selected Area Electron Diffraction (SAED) image of C_8-BTBT crystal.

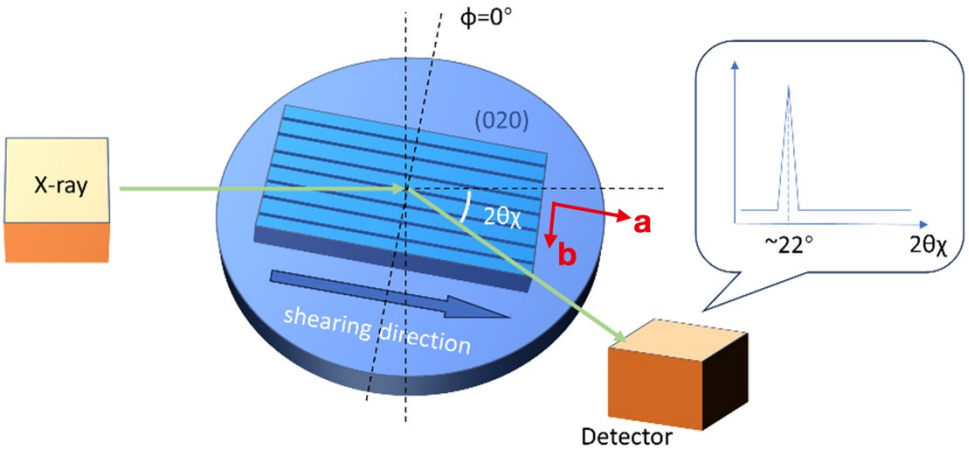

Figure S4 In-plane XRD measurement setup.

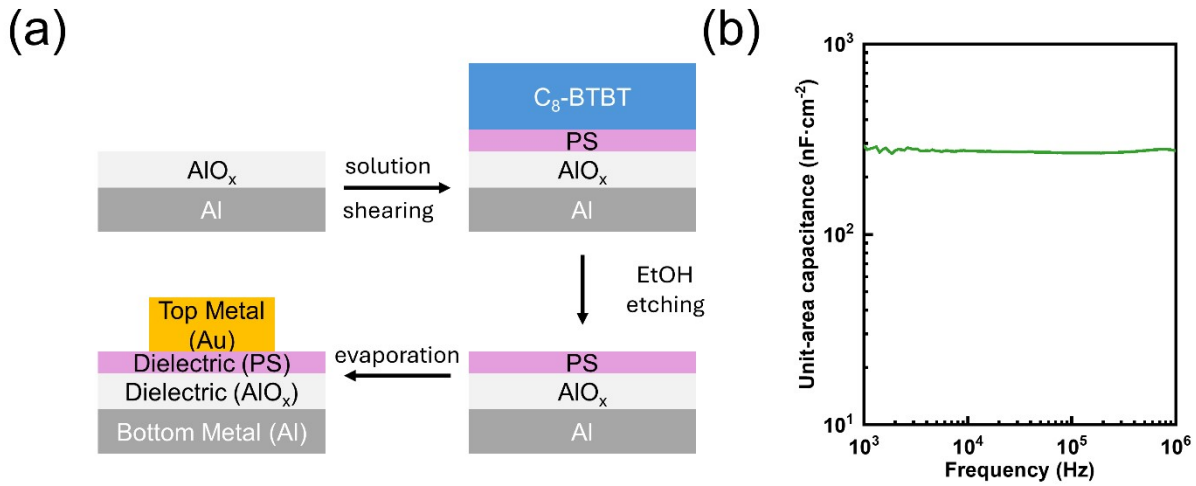

Figure S5 (a) Diagram image of metal-insulator-metal (MIM) device. (b) Unit-area capacitance of AlO_x/PS dual dielectrics.

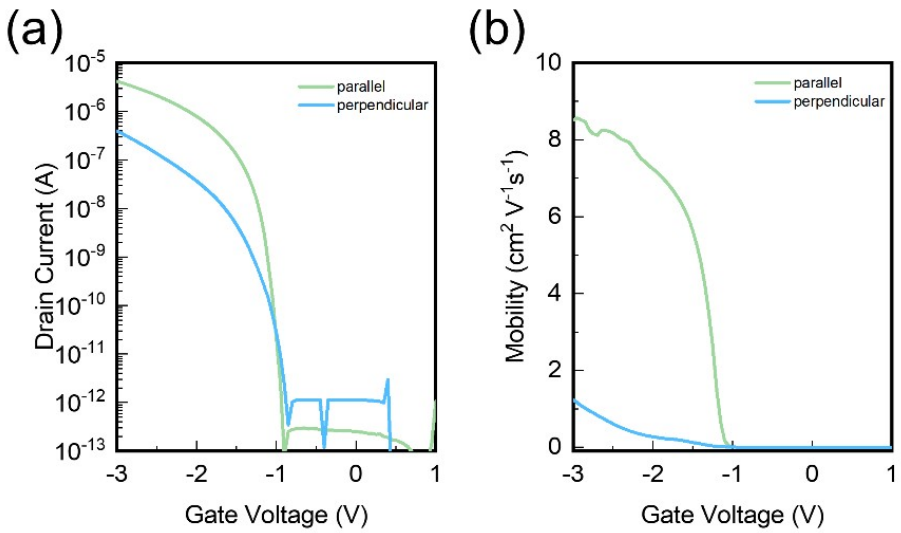

Figure S6 (a) Transfer I-V curve of parallel and perpendicular channel of OFET under 700 μm s^{-1} shearing speed. (b) Mobility of parallel and perpendicular channel of OFET under 700 μm s^{-1} shearing speed.