Title:

Ultrathin Annealing-Free Polymer Layers: New Opportunity to Enhance Mobility and Stability of Low-Voltage Thin-Film Organic Transistors †

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† Electronic supplementary information (ESI) available.

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Supporting-1

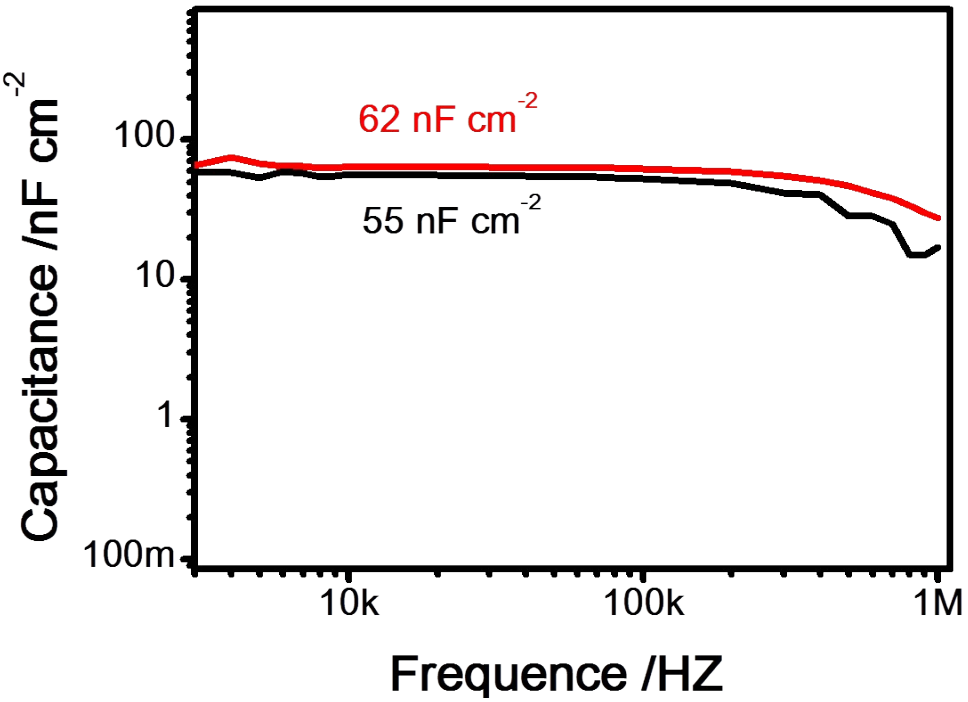

Fig. S1 Frequency dependence of the specific capacitance (black line: PPDO/SiO_2; red line: SiO_2).

Supporting-2

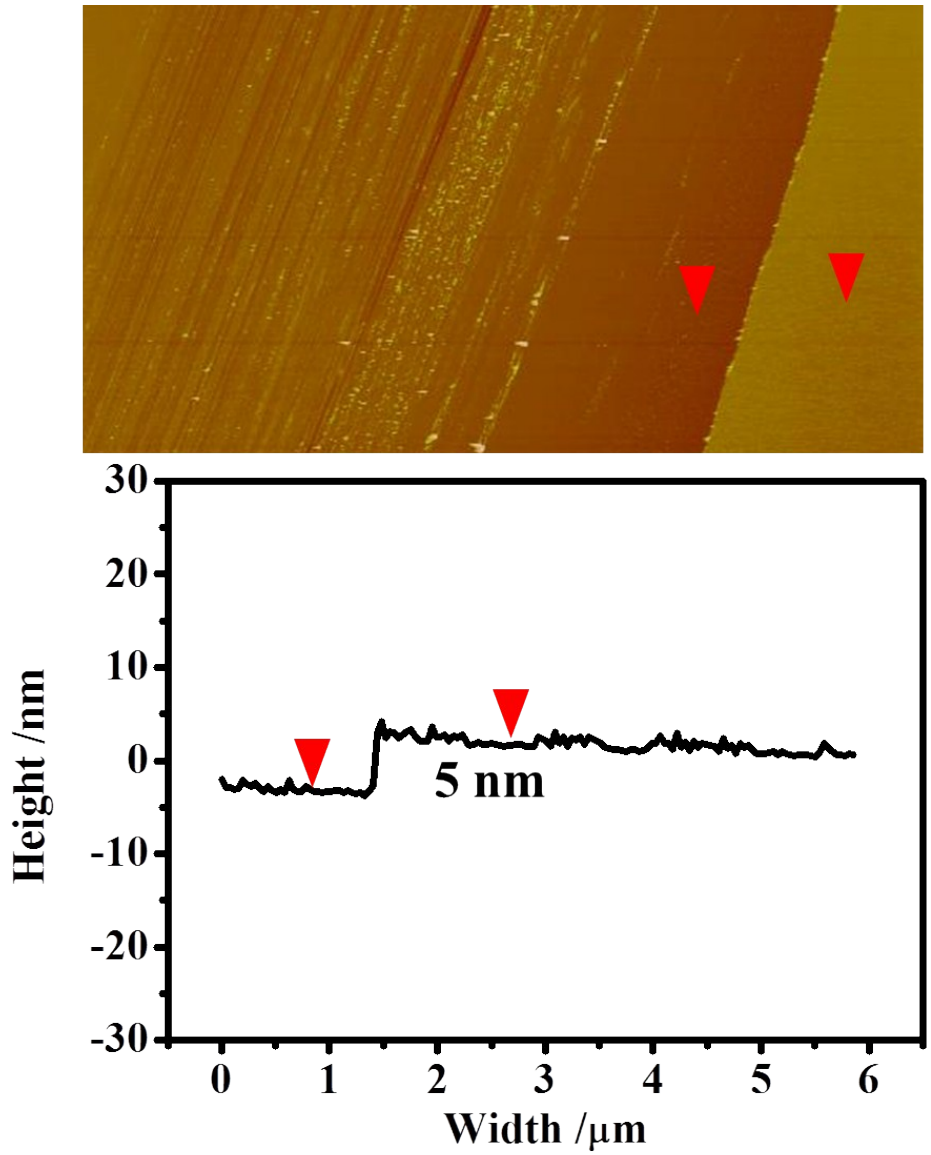

Fig. S2 Thickness of the PPDO used in this work.

Supporting-3

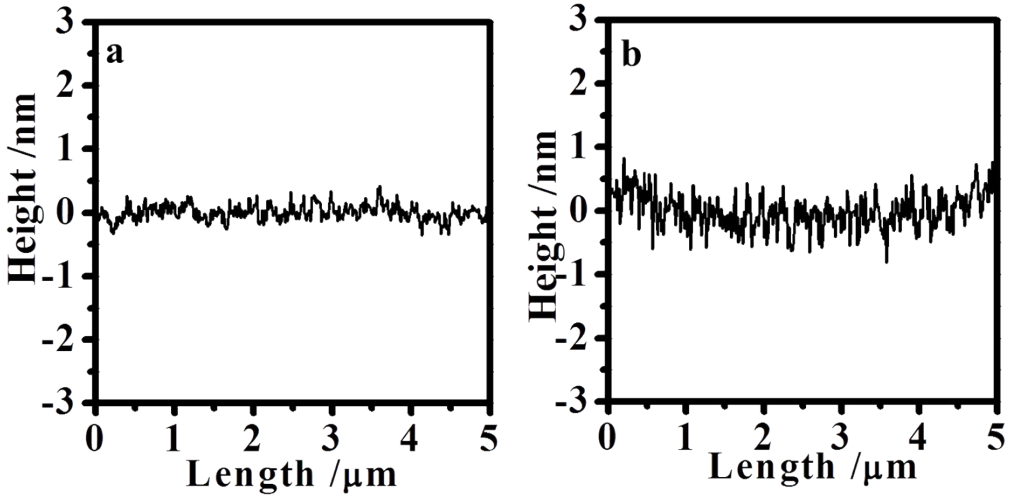

Fig. S3 a) Roughness of the PPDO/ SiO_2 surface, b) The roughness of the SiO_2 surface.

Supporting-4

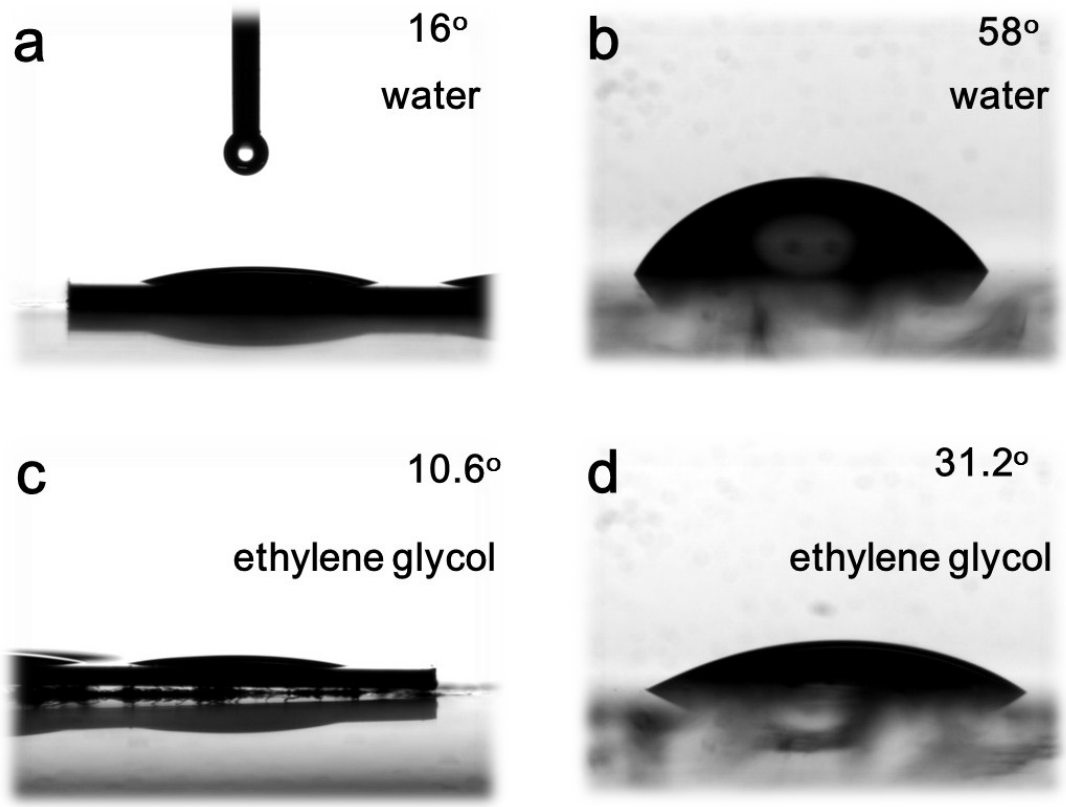

Fig. S4 Contact angle of water on the surface of a) SiO_2, and b) PPDO/ SiO_2. The contact angle of ethylene glycol on the surface of c) SiO_2 and d) PPDO/ SiO_2.

Supporting-5

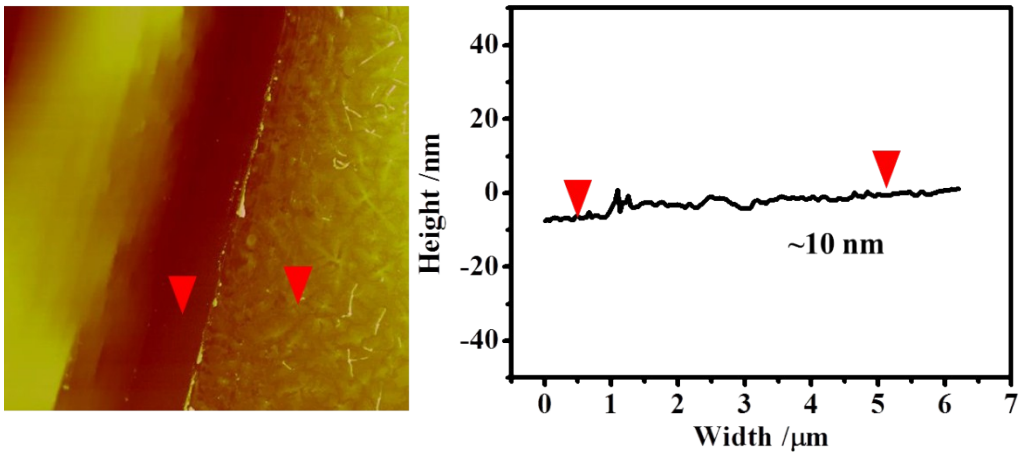

Fig. S5 Thickness of the pentacene used in this work.

Supporting-6

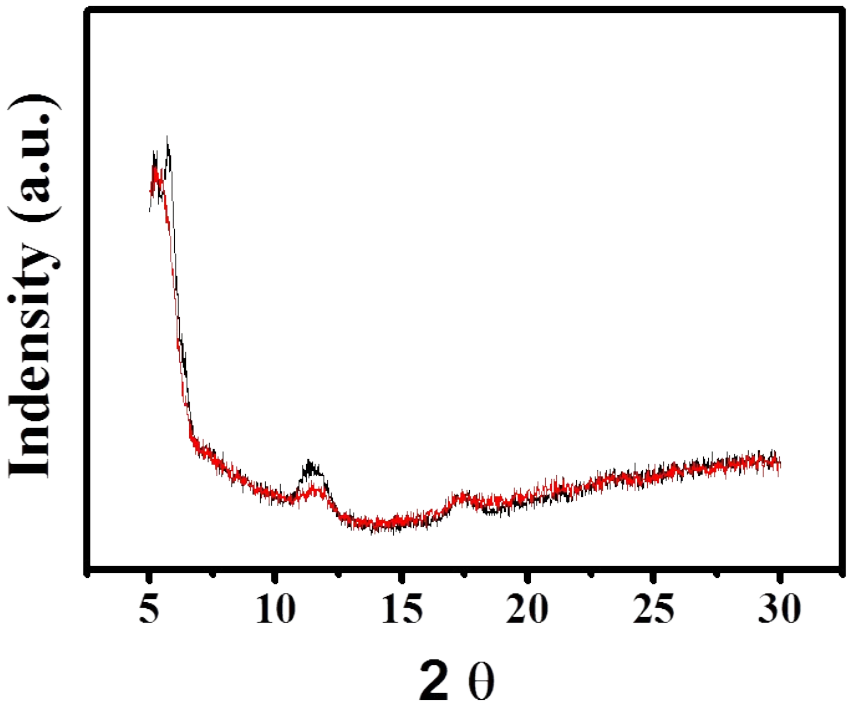

Fig. S6 XRD patterns of pentacene film grown on PPDO/SiO_2 (black line) and SiO_2 surface (red line)

Supporting-7

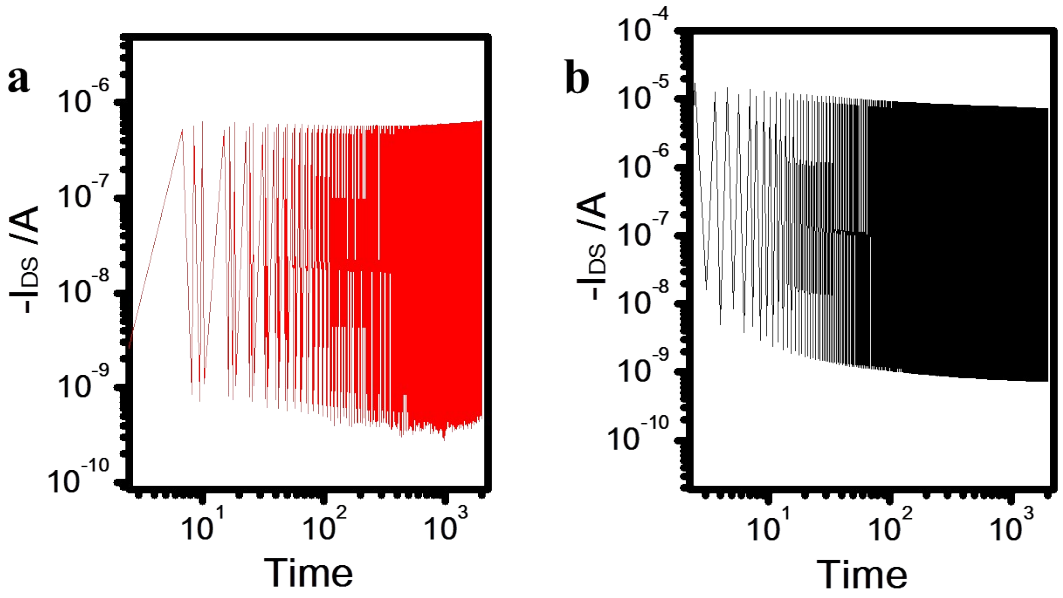

Fig. S7 a) Switching cycles of drain current as a function of cycling time based on SiO_2 insulator after 100 days, b) Switching cycles of drain current as a function of cycling time based on PPDO/SiO_2 insulator after 100 days.