

Supporting Information

Improving organic memory performance through mounting conjugated branches on a triphenylamine core

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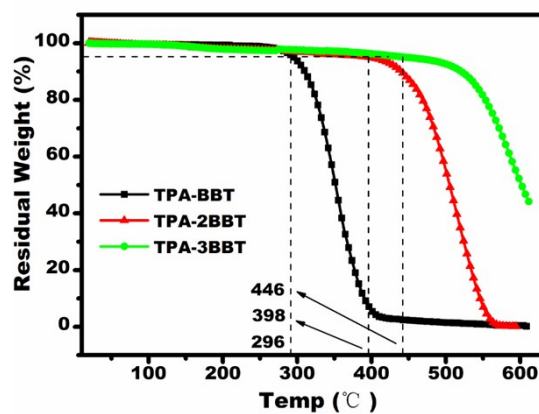


Fig. S1 TGA curves of the three compounds measured in nitrogen atmosphere at a heating rate of $10\text{ }^{\circ}\text{C}\cdot\text{min}^{-1}$.

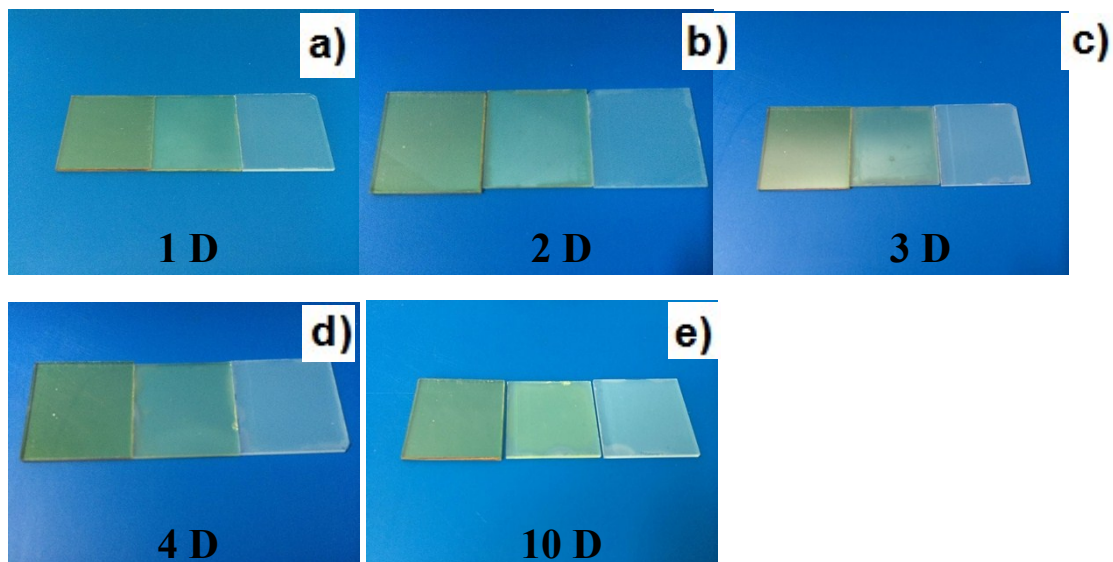


Fig. S2 The electronic photos of the three compounds film at room temperature: TPA-BBT (right); TPA-2BBT (middle); TPA-3BBT (left).

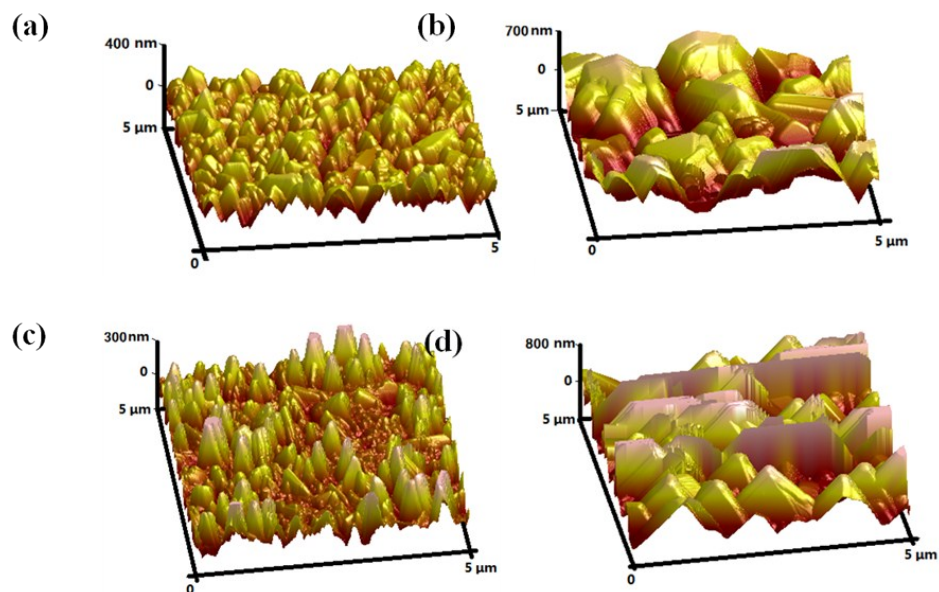


Fig. S3 Tapping-mode height of AFM topographic images of compounds thin film vacuum-deposited onto ITO at different annealing temperatures: **TPA-BBA** (a (60 °C), b (100 °C)); **TPA-2BBA** (c (60 °C), d (80 °C)).

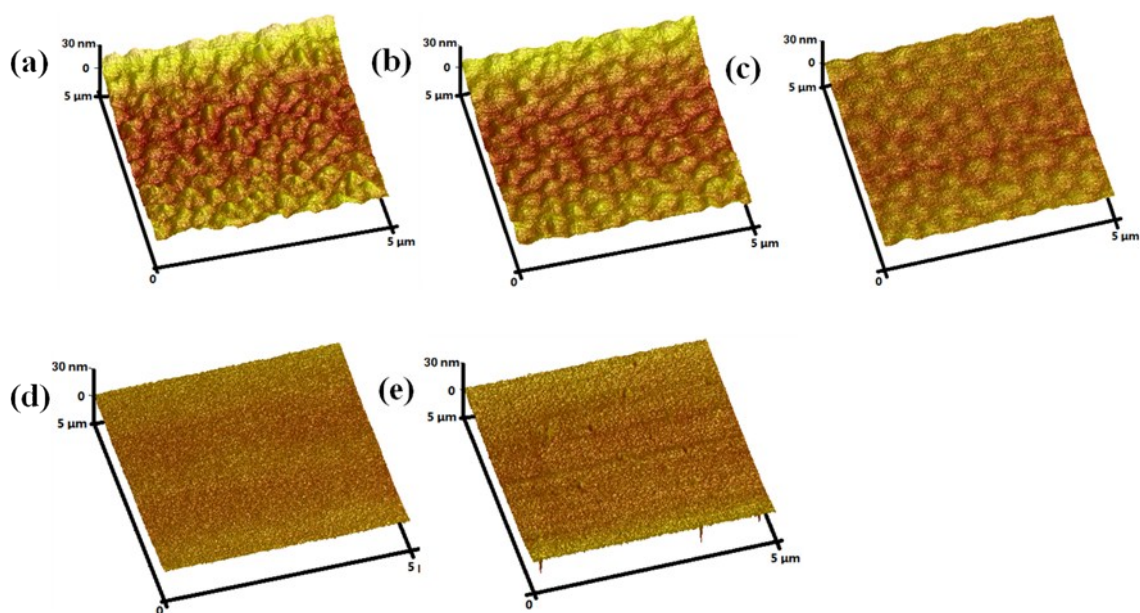


Fig. S4 Tapping-mode height of AFM topographic images of **TPA-3BBA** thin film vacuum-deposited onto ITO at different annealing temperatures: a (r. t.), b (60 °C), c (80 °C), d (100 °C), e (120 °C).

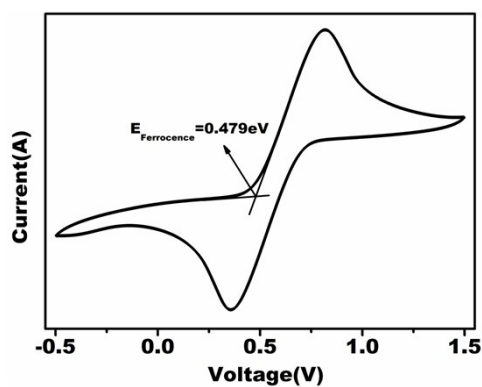


Fig. S5 Cyclic voltammetry (CV) curves of the ferrocene in anhydrous dichloromethane solution with 0.1 M Bu_4NPF_6 as the supporting electrolyte. The scan rate was $100 \text{ mV} \cdot \text{s}^{-1}$.

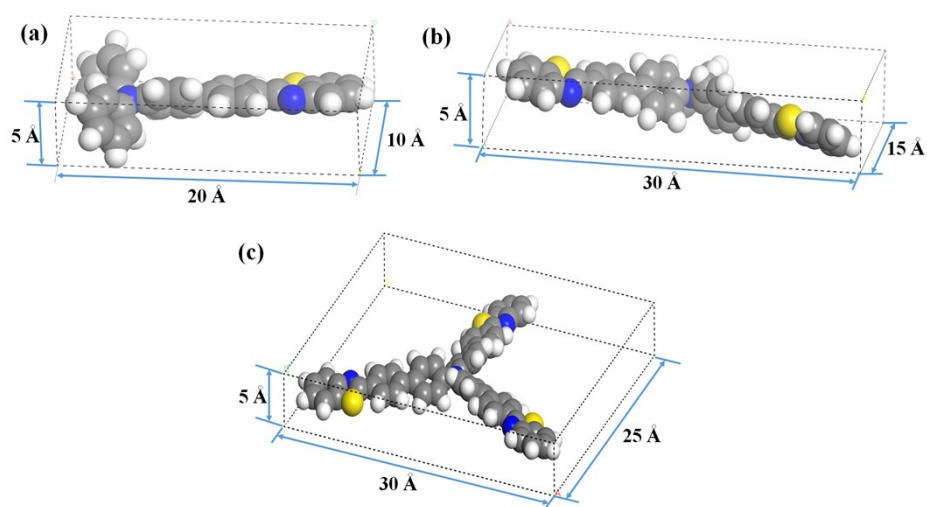


Fig. S6 The schematic illustration of the TPA-nBBT ($n=1,2,3$) molecular size which was obtained from theoretical calculations (a)TPA-BBT; (b) TPA-2BBT; (c) TPA-3BBT.