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Supporting Information

High Efficiency Solution-Processed Two-Dimensional Small Molecule Organic Solar Cells Obtained via Low-Temperature Thermal Annealing

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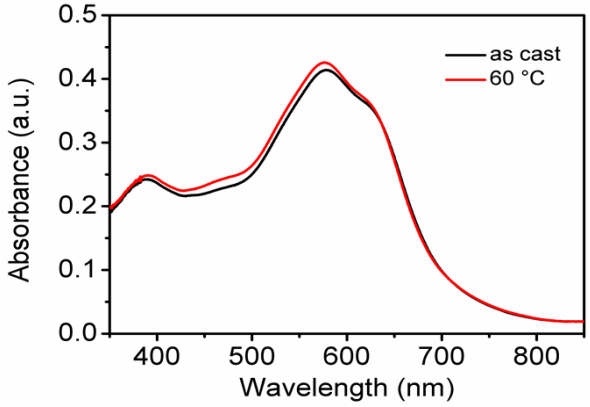

Figure S1. UV-vis absorption spectra of DCA3T(T-BDT) film before and after thermal annealing at 60 °C.

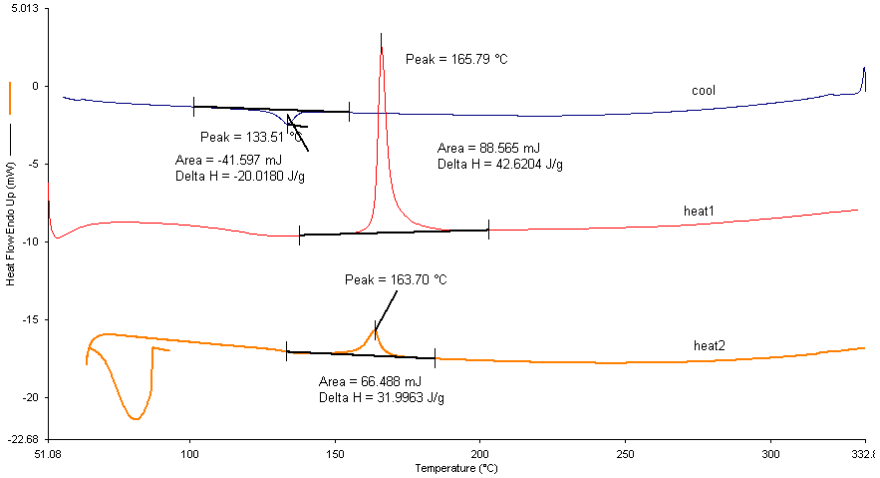

Figure S2. DSC thermograms at 10 °C min^{-1} in the temperature range from 50 to 330 °C for DCA3T(T-BDT).

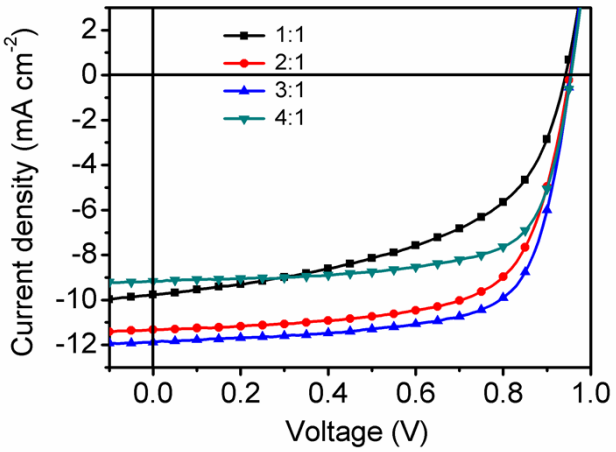

Figure S3. *J-V* characteristics of BHJ based on DCA3T(T-BDT):$PC_{61}BM$ after thermal annealing at 60 °C with different blend ratios.

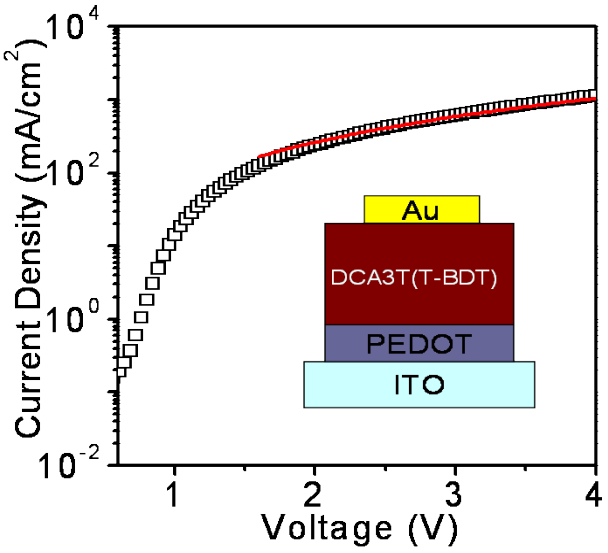

Figure S4. The *J-V* curve of the ITO/PEDOT/DCA3T(T-BDT) (100 nm)/Au diodes with the device configuration inset. The symbols are experimental data for transport of holes, and the solid line is fitted according to the space-charge-limited-current model.

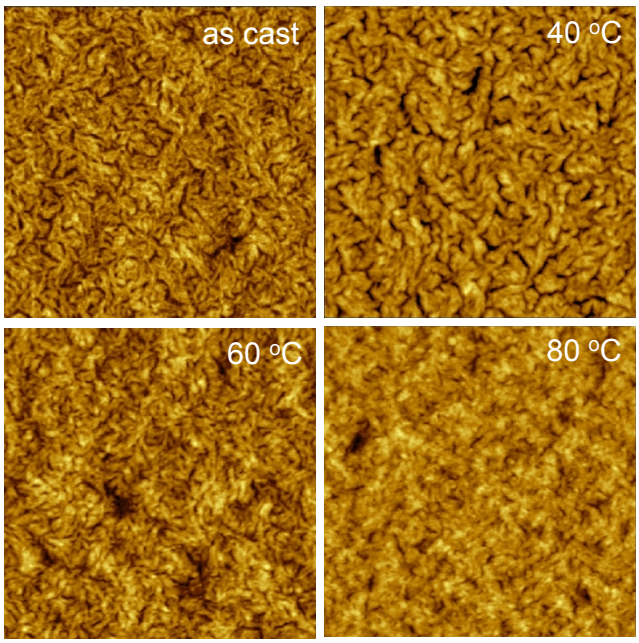

Figure S5. AFM height images (4 μm × 4 μm) of DCA3T(T-BDT):$PC_{61}BM$ (3:1, w:w) blend films before and after thermal annealing at different temperatures.

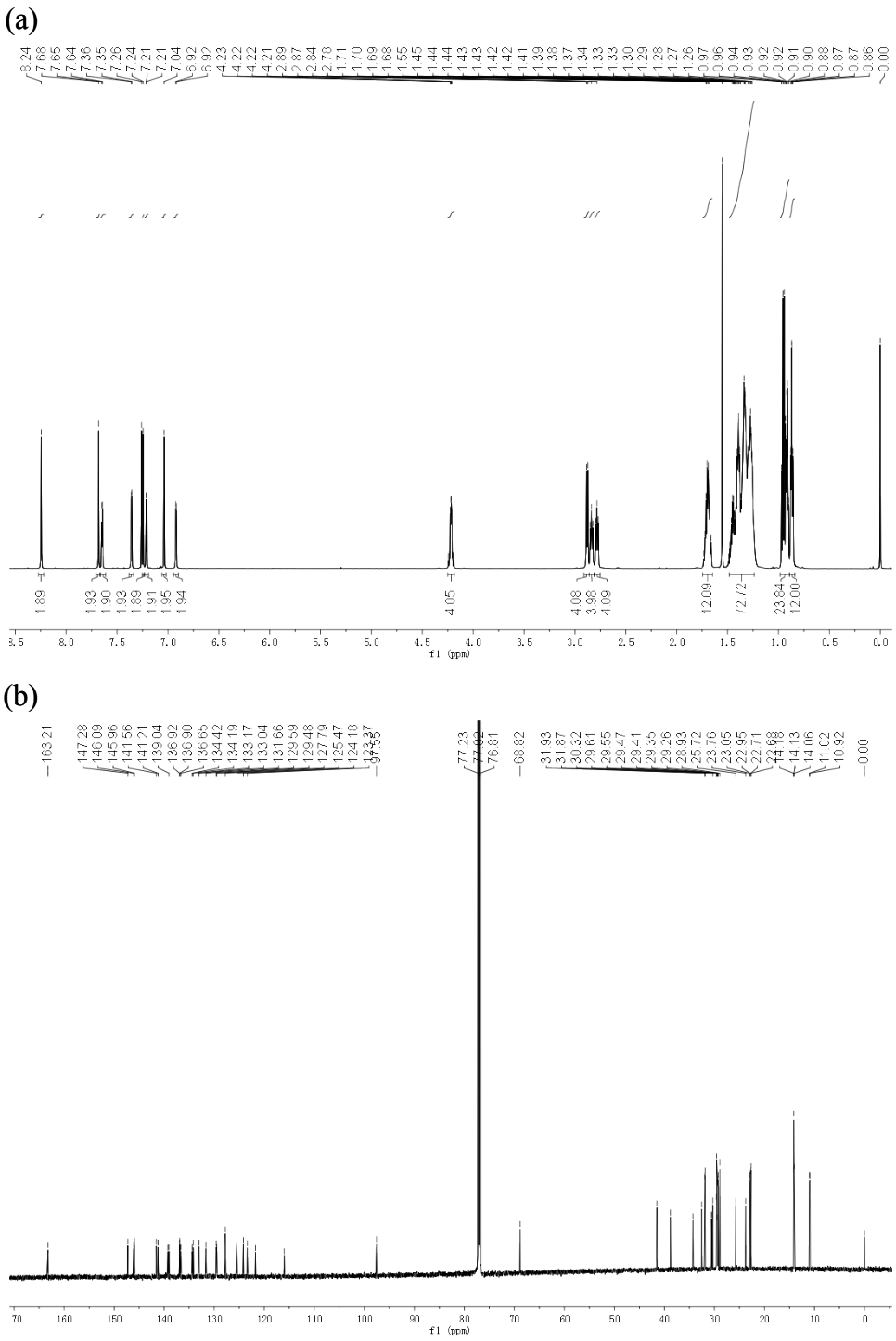

Figure S6. ^{1}H NMR (a) and ^{13}C NMR (b) spectra of DCA3T(T-BDT).

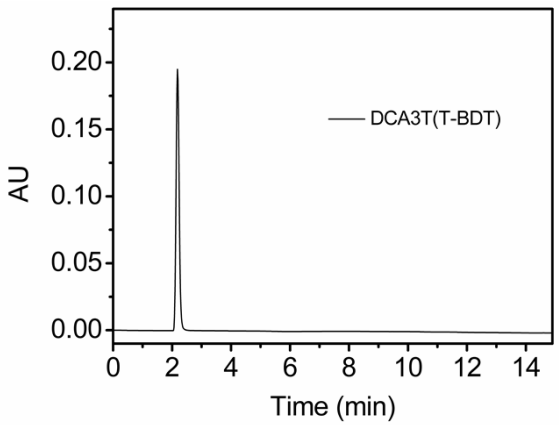

Figure S7. HPLC-UV spectra of DCA3T(T-BDT).