

## Supporting Information

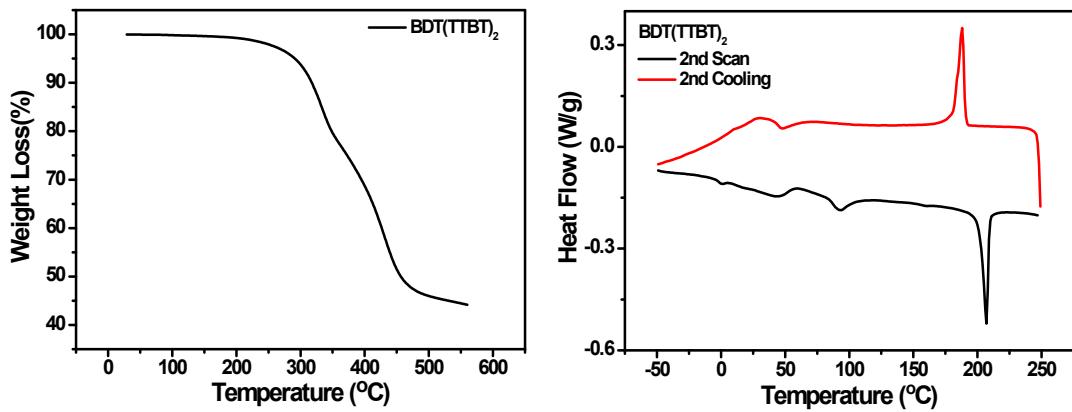
### **Influence of Terminal Donor on the Performance of 4, 8-Dialkoxybenzo[1,2-*b*:4,5']dithiophene based Small Molecule for Efficient Solution-processed Organic Solar Cells**

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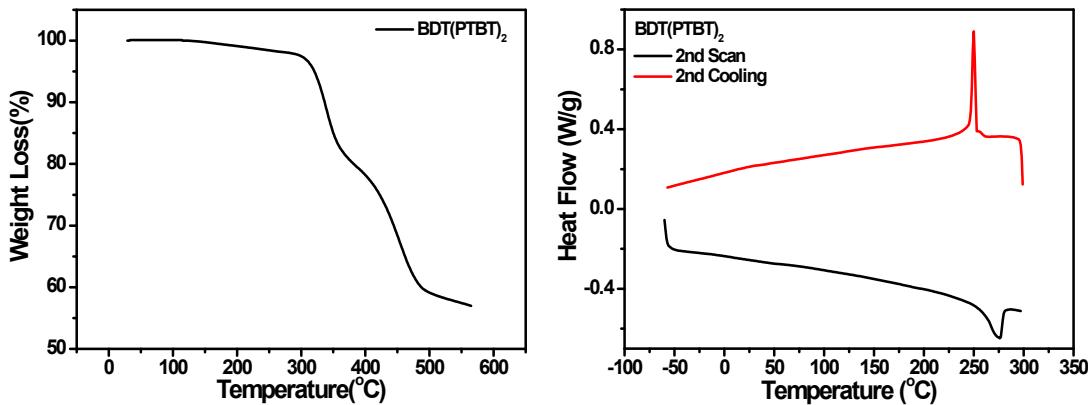
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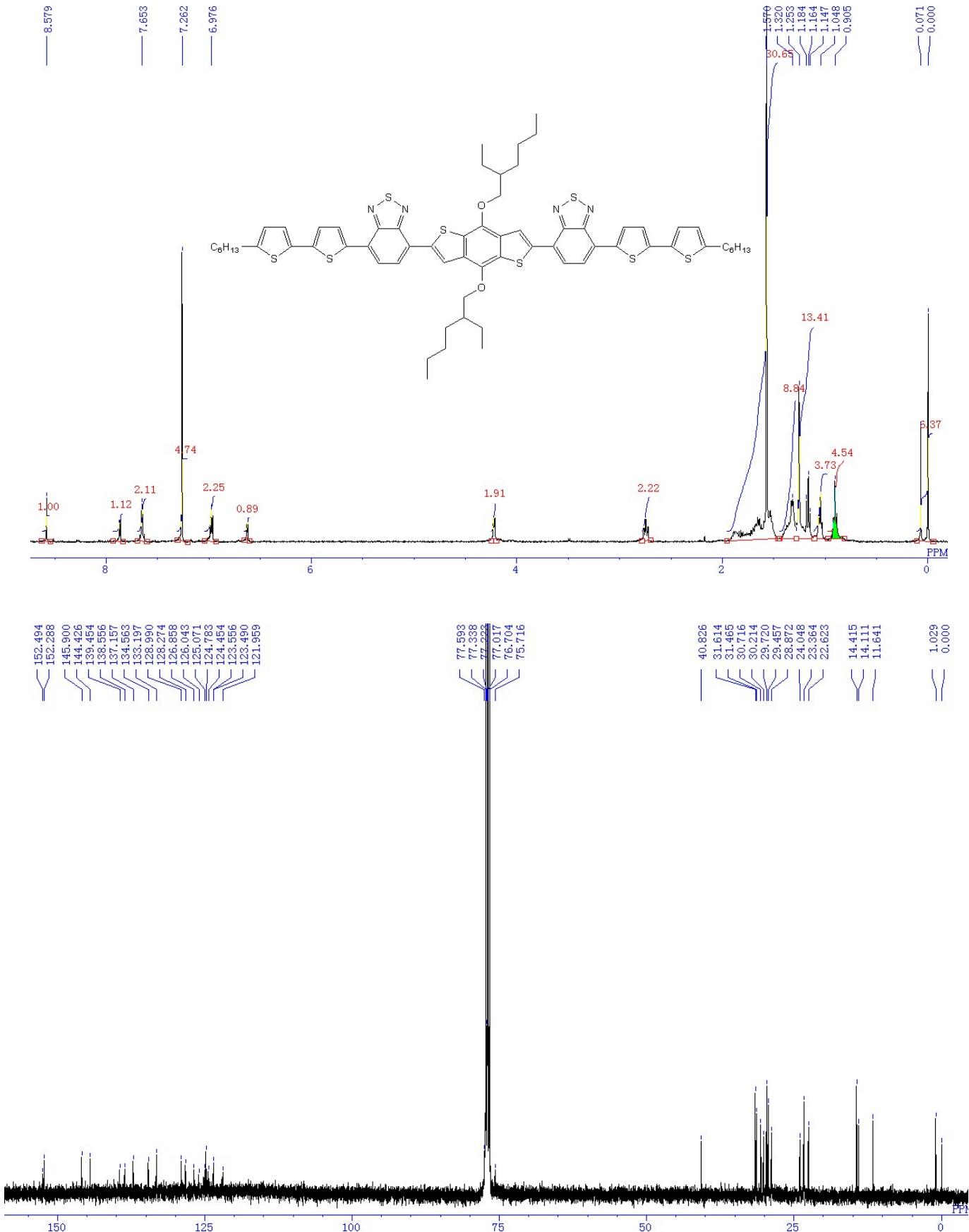
E-mail: [shlee66@jbnu.ac.kr](mailto:shlee66@jbnu.ac.kr)



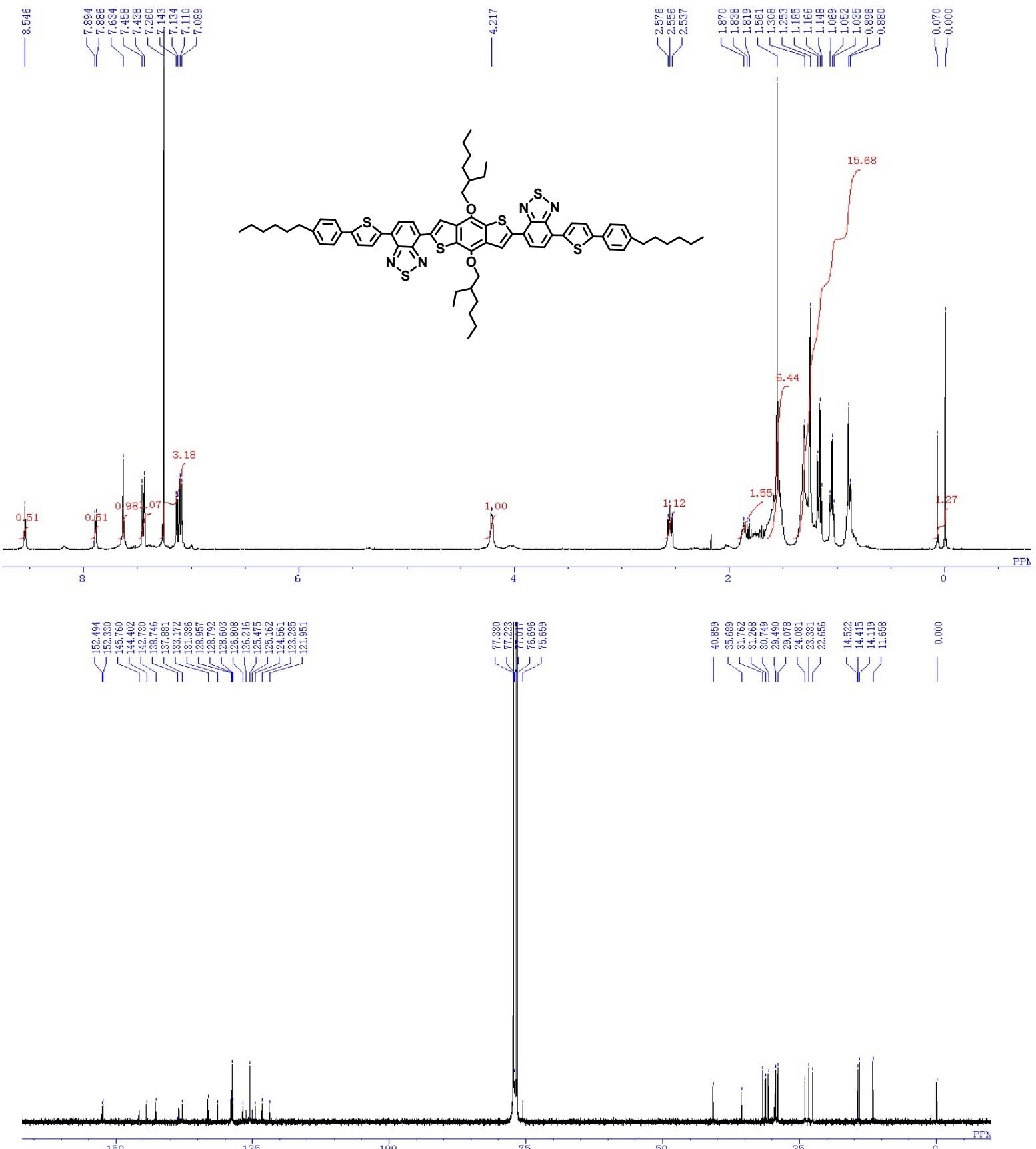
**Fig. S1** TGA and DSC of  $\text{BDT}(\text{TTBT})_2$



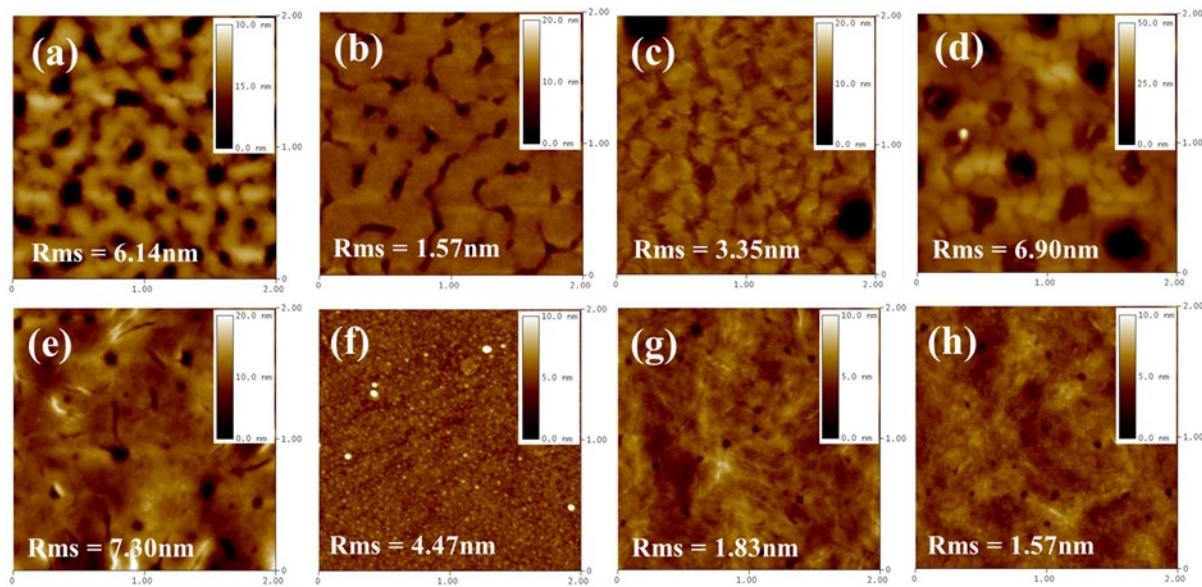
**Fig. S2** TGA and DSC of  $\text{BDT}(\text{PTBT})_2$



**Fig. S3**  $^1\text{H}$  &  $^{13}\text{C}$  NMR of BDT(TTBT)<sub>2</sub>



**Fig. S4** <sup>1</sup>H & <sup>13</sup>C NMR of BDT(PTBT)<sub>2</sub>



**Fig. S5** The AFM images of (a-d) BDT(TTBT)<sub>2</sub>:PC<sub>71</sub>BM and (e-h) BDT(PTBT)<sub>2</sub>:PC<sub>71</sub>BM films with different blend ratio : (a, e) 1:1, (b, f) 1:2, (c, g) 1:3, (d, h) 1:4 without post annealing.