Electronic Supplementary Material (ESI) for Polymer Chemistry.

Study of the Thermoelectric Properties of Benzo[1,2-b:4,5-b′]dithiophene–based Donor-Acceptor Conjugated Polymers

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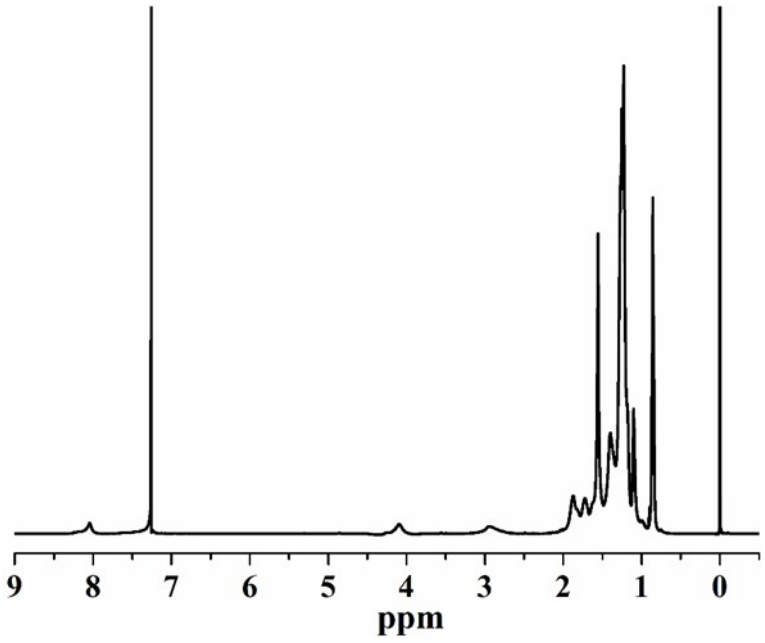

Figure S1. ^{1}H NMR spectrum of **PBDTDTBTF-1**.

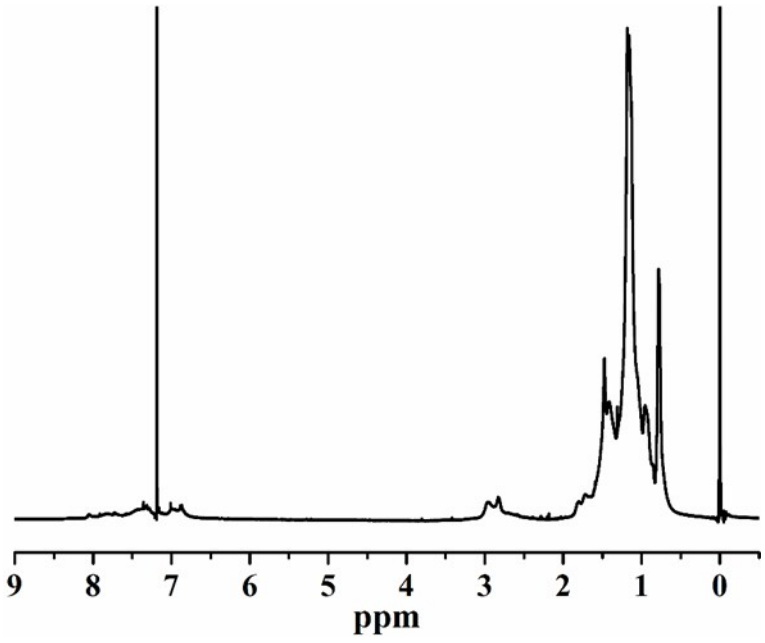

Figure S2. ^{1}H NMR spectrum of **PBDTDTBTF-2**.

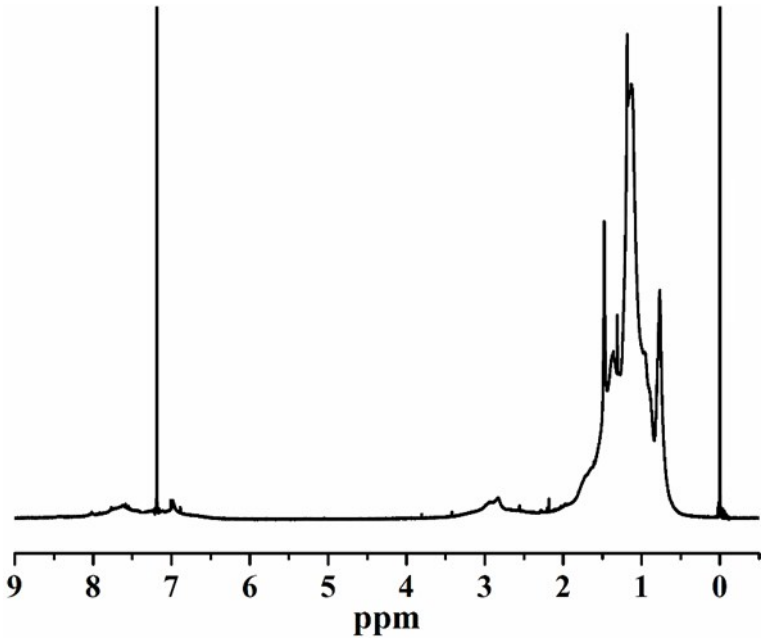

Figure S3. ^{1}H NMR spectrum of **PBDTDTBTF-3**.

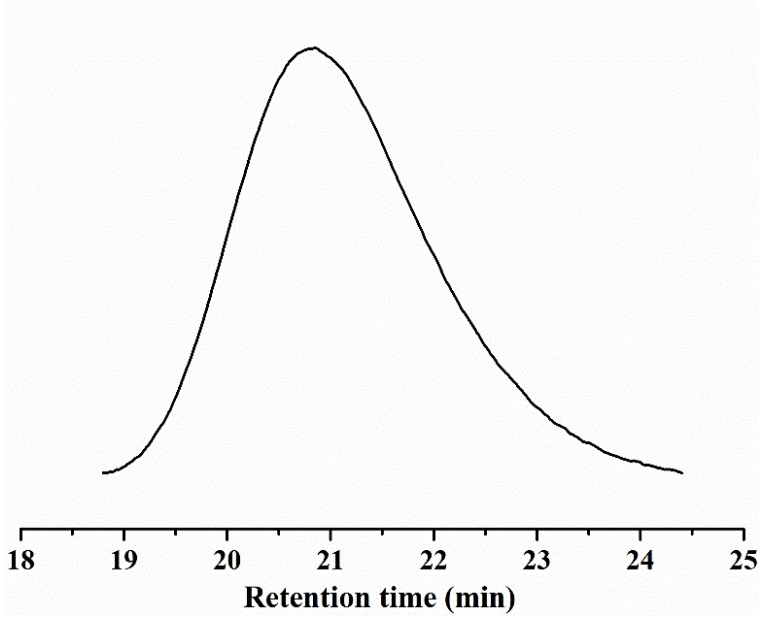

Figure S4. GPC curve of **PBDTDTBTF-1**.

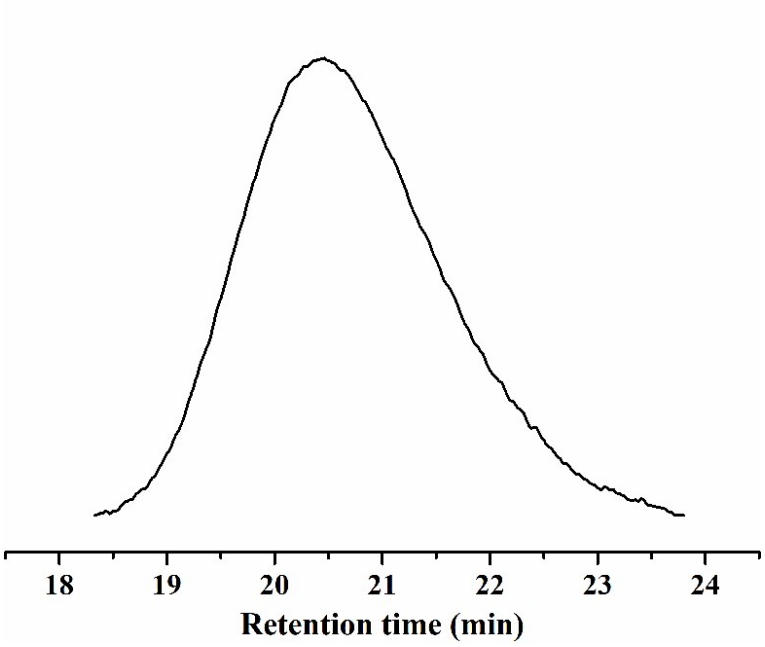

Figure S5. GPC curve of **PBDTDTBTF-2**.

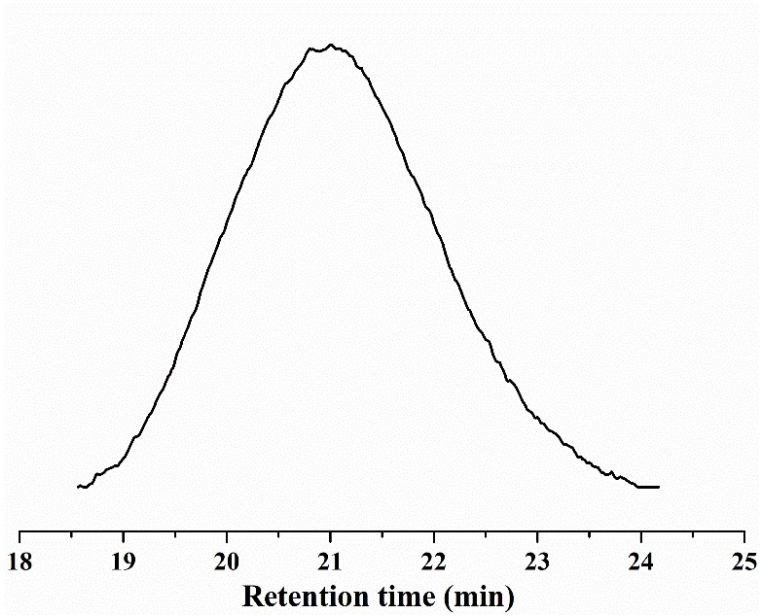

Figure S6. GPC curve of **PBDTDTBTF-3**.

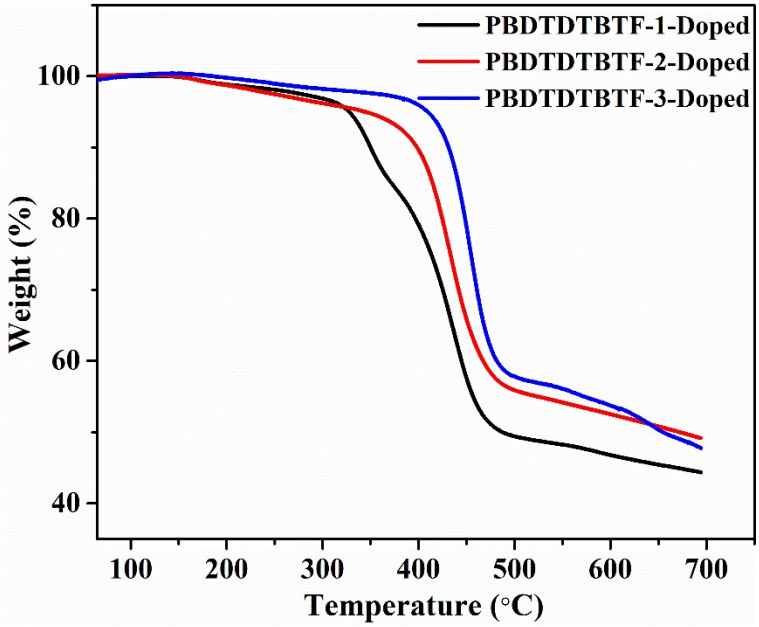

Figure S7. TGA curves of **PBDTDTBTF-1**-Doped, **PBDTDTBTF-2**-Doped and **PBDTDTBTF-3**-Doped.

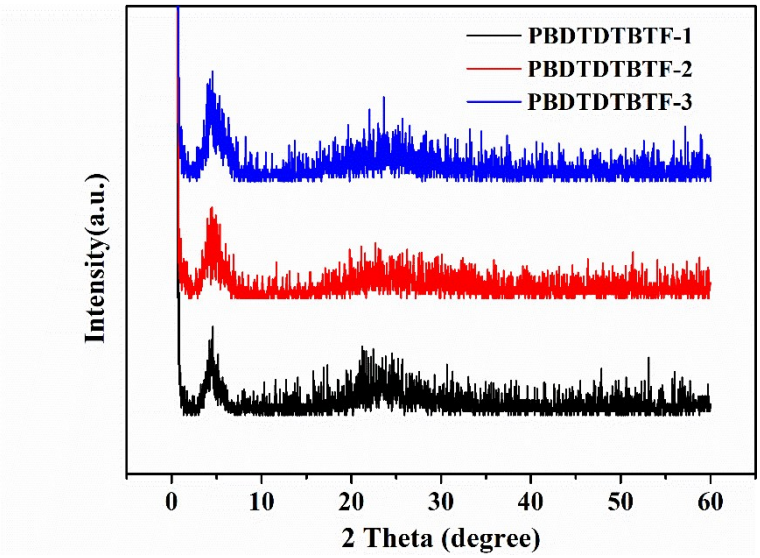

Figure S8. XRD curves of **PBDTDTBTF-1**, **PBDTDTBTF-2** and **PBDTDTBTF-3** films.

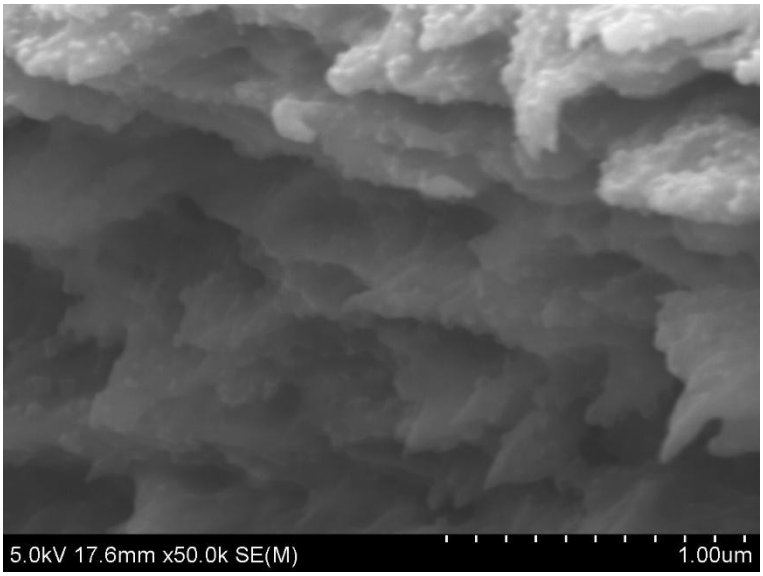

Figure S9. Cross-sectional SEM images of **PBDTDTBTF-1** film.

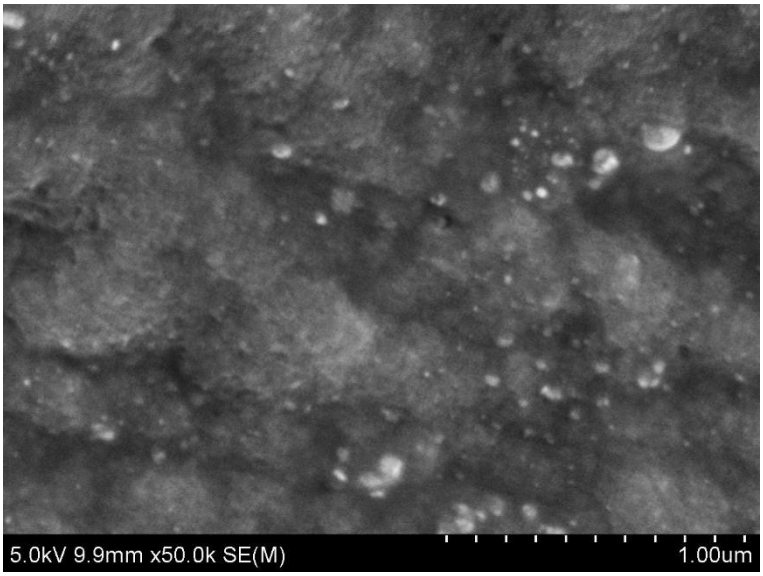

Figure S10. Cross-sectional SEM images of **PBDTDTBTF-2** film.

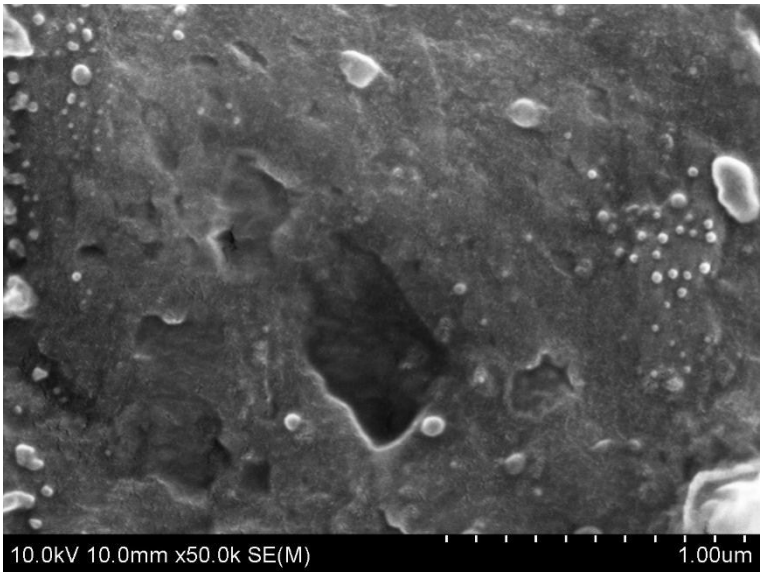

Figure S11. Cross-sectional SEM images of **PBDTDTBTF-3** film.

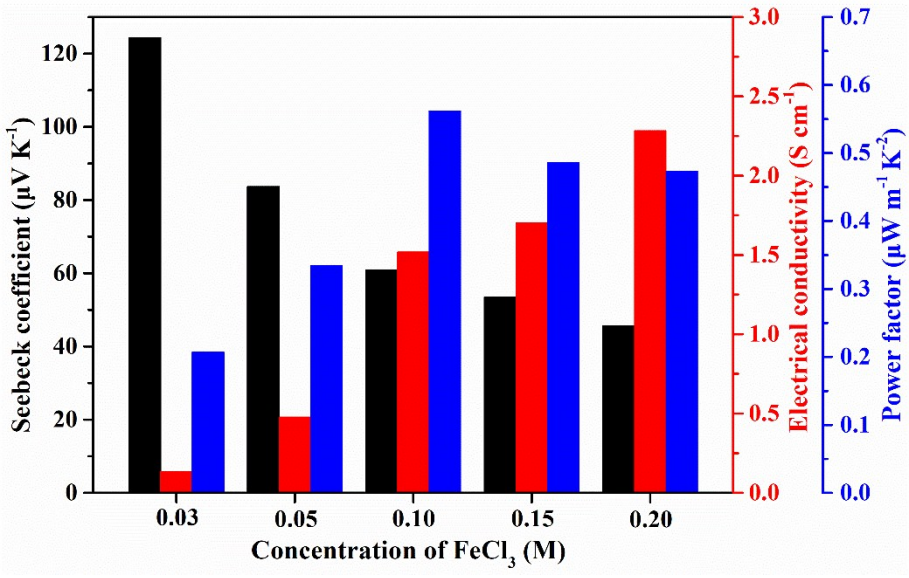

Figure S12. Thermoelectric properties of **PBDTDTBTF-3** films at different doping concentrations.

Table S1. Carrier concentration and hall mobility of all three doped polymer films.

Polymer	PBDTDTBTF-1	PBDTDTBTF-2	PBDTDTBTF-3
Carrier concentration (cm^{-3})	1.81×10^{19}	6.77×10^{19}	8.49×10^{19}
Hall mobility ($cm^2\ v^{-1}\ s^{-1}$)	3.47×10^{-4}	1.06×10^{-3}	3.41×10^{-3}