

Supplementary Information

Synthesis and photovoltaic performances of conjugated polymer based on a new naphthodifuran monomer

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1. NMR spectra

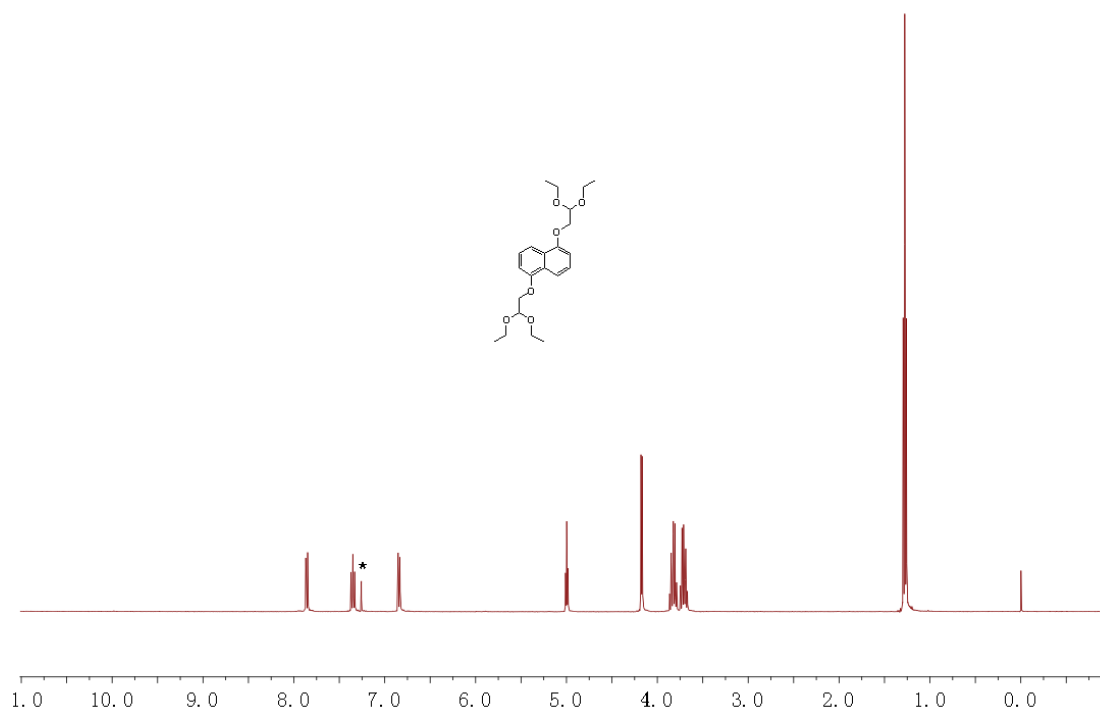


Fig. S1 ^1H NMR spectrum of 1,5-bis(2,2-diethoxyethoxy)naphthalene (1)

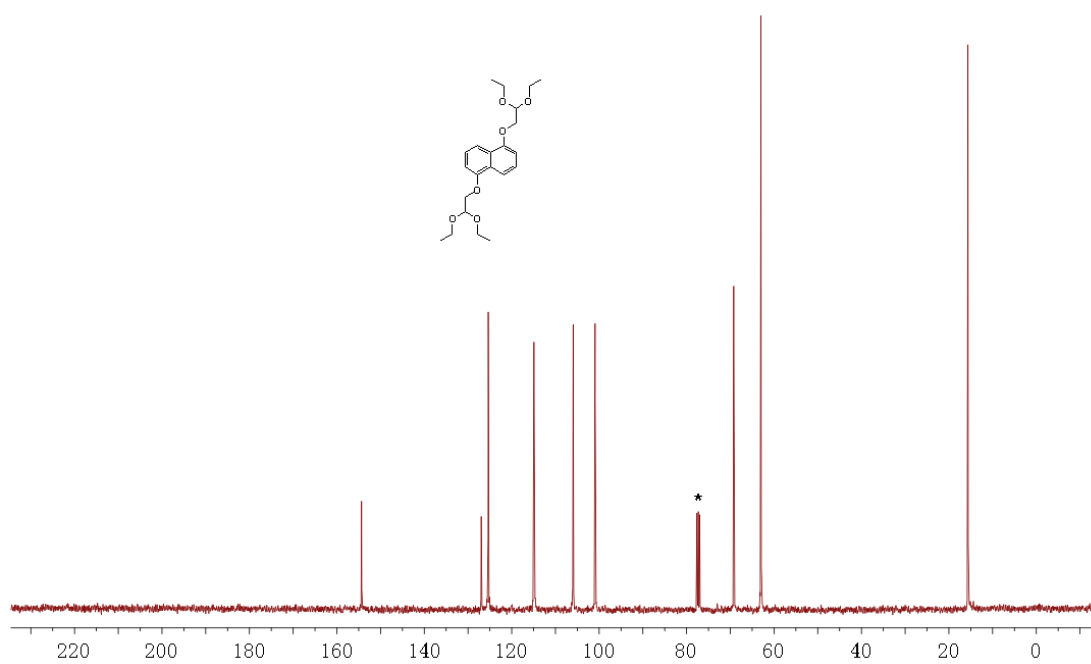


Fig. S2 ^{13}C NMR spectrum of 1,5-bis(2,2-diethoxyethoxy)naphthalene (**1**)

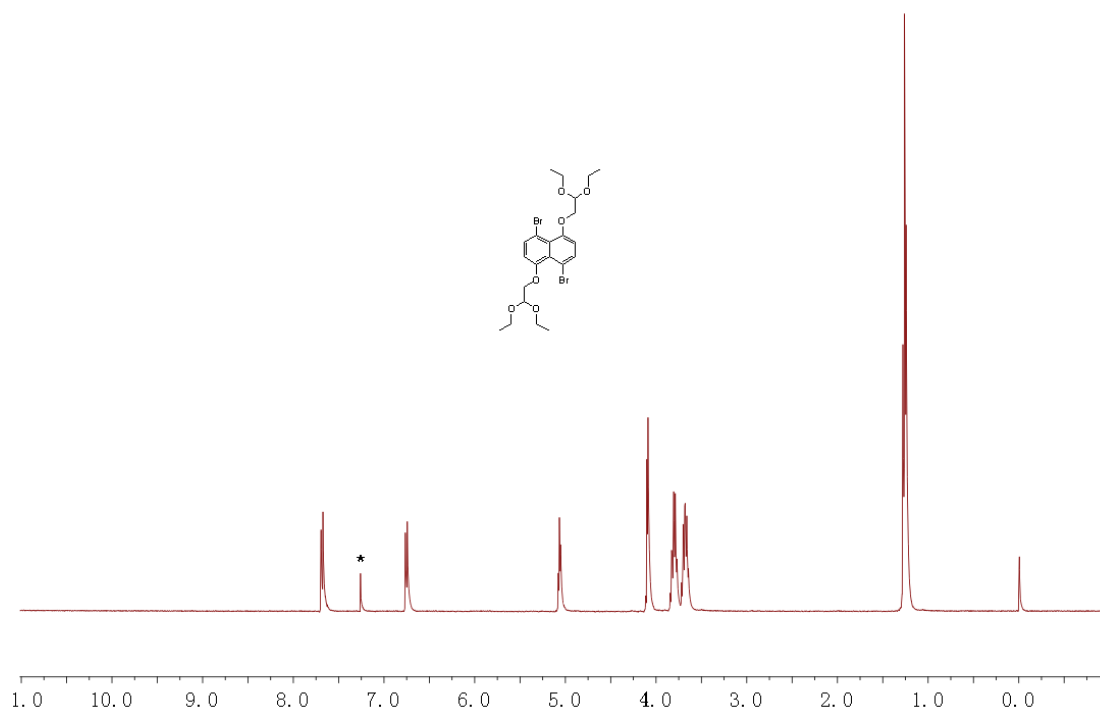


Fig. S3 ^1H NMR spectrum of 1,5-dibromo-4,8-bis(2,2-diethoxyethoxy)naphthalene (**2**)

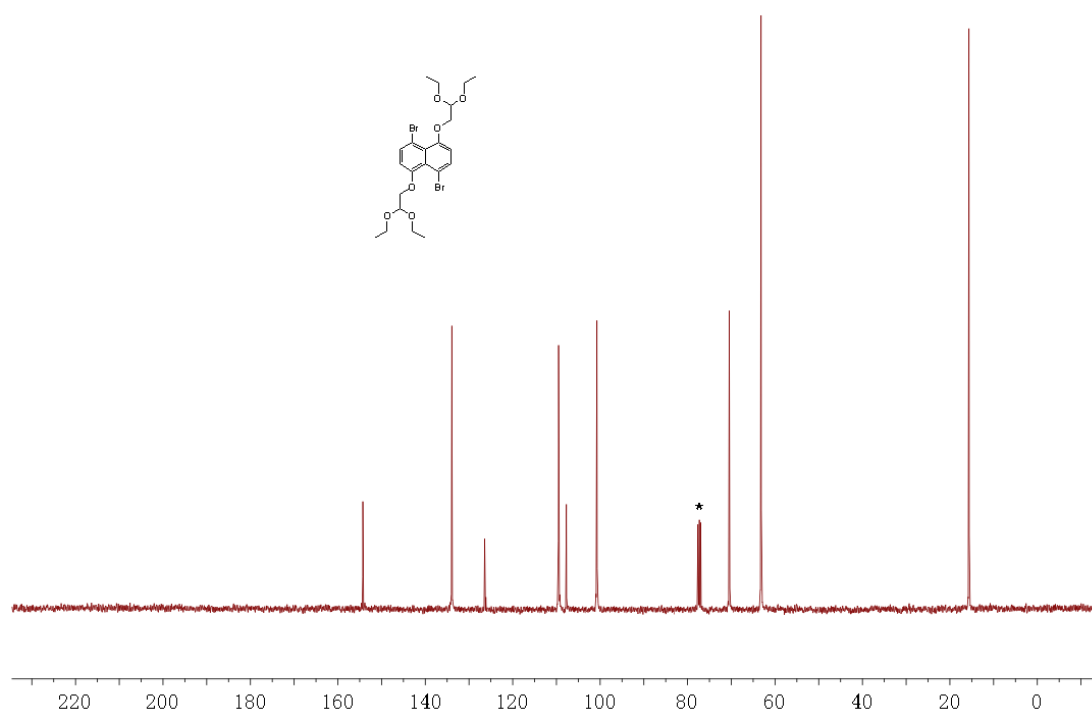


Fig. S4 ^{13}C NMR spectrum of 1,5-dibromo-4,8-bis(2,2-diethoxyethoxy)naphthalene (**2**)

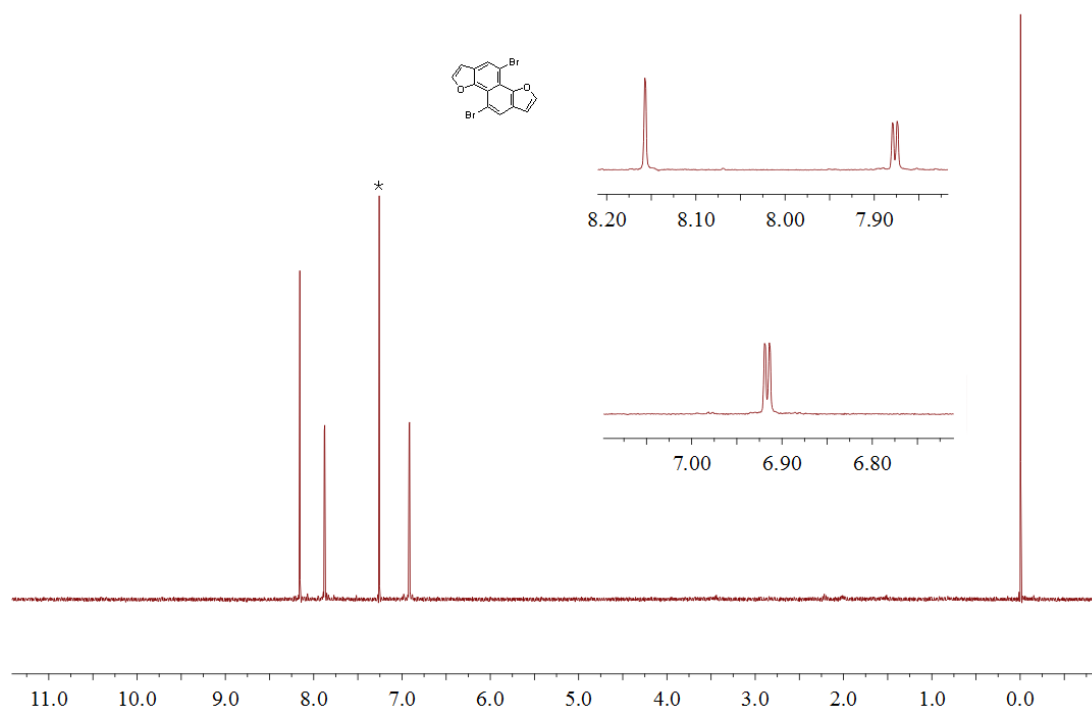


Fig. S5 ^1H NMR spectrum of 5,10-Dibromonaphtho[1,2-*b*:5,6-*b'*]difuran (**3**)

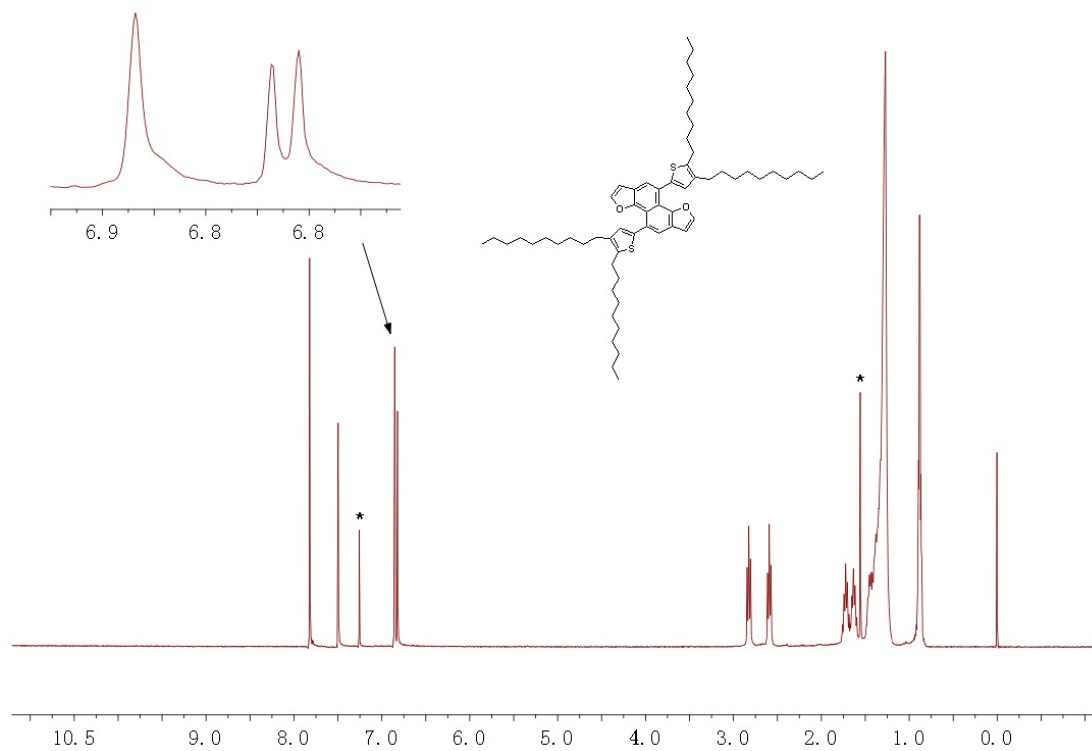


Fig. S6 ^1H NMR spectrum of 5,10-bis(2,3-didecylthiophen-5-yl)naphtho[1,2-*b*:5,6-*b'*]difuran (NDFT)

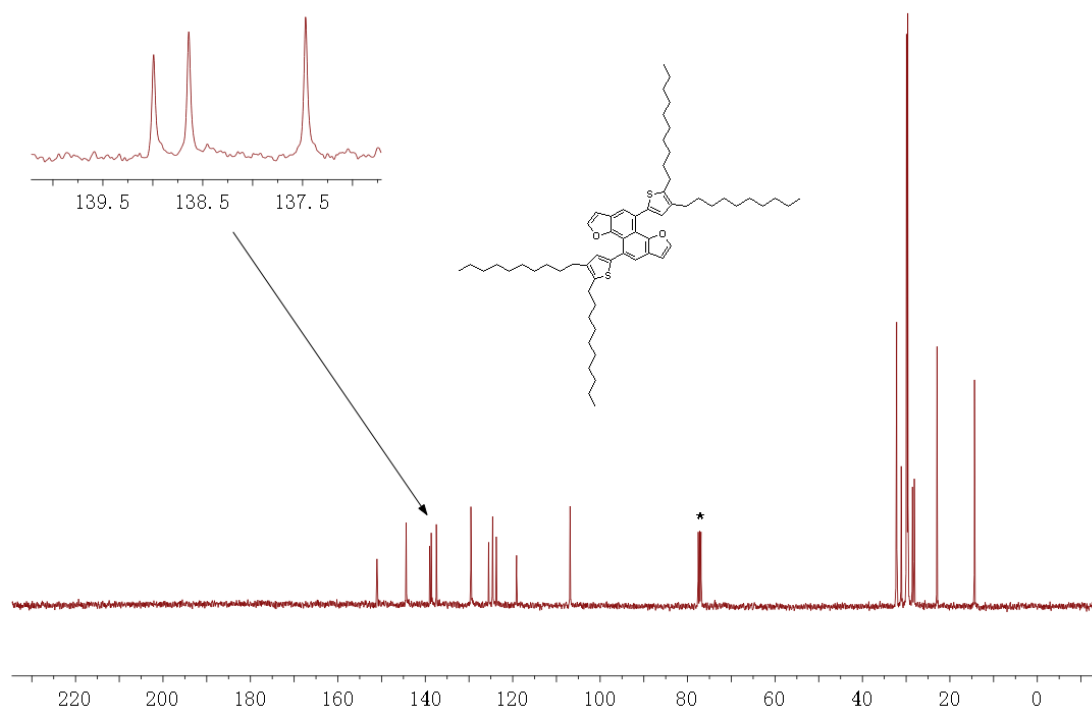


Fig. S7 ^{13}C NMR spectrum of 5,10-bis(2,3-didecylthiophen-5-yl)naphtho[1,2-*b*:5,6-*b'*]difuran (NDFT)

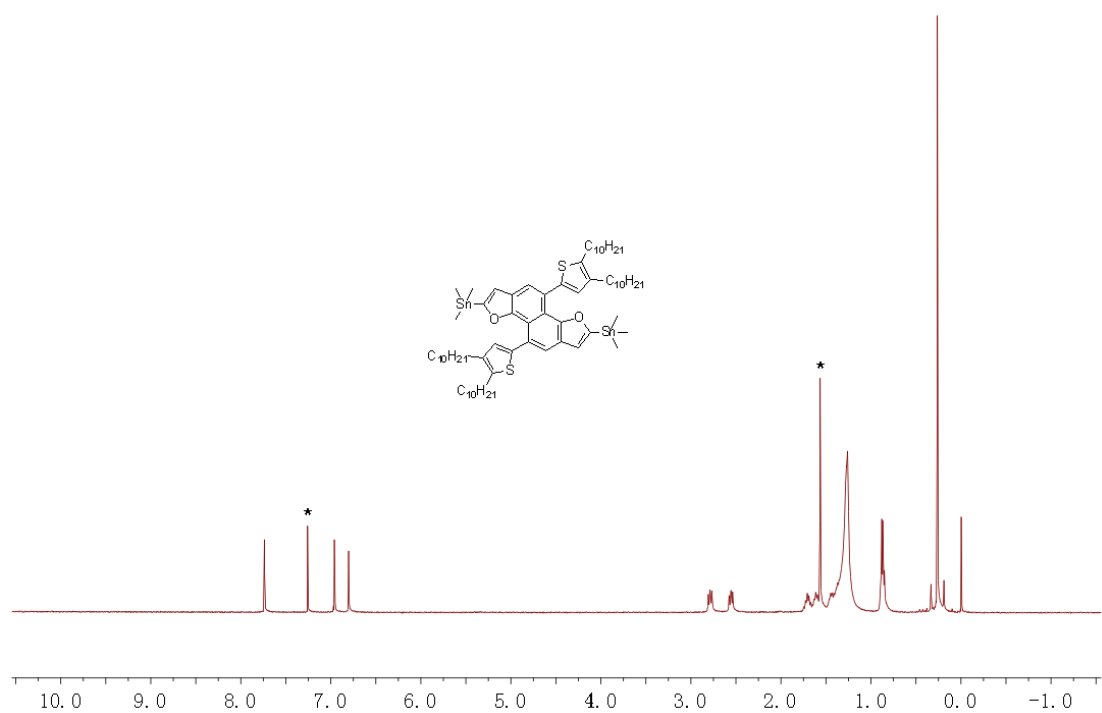


Fig. S8 ^1H NMR spectrum of 2,7-bis(trimethyltin)-5,10-bis(2,3-didecylthiophen-5-yl)naphtho[1,2-*b*:5,6-*b'*]difuran (**M1**)

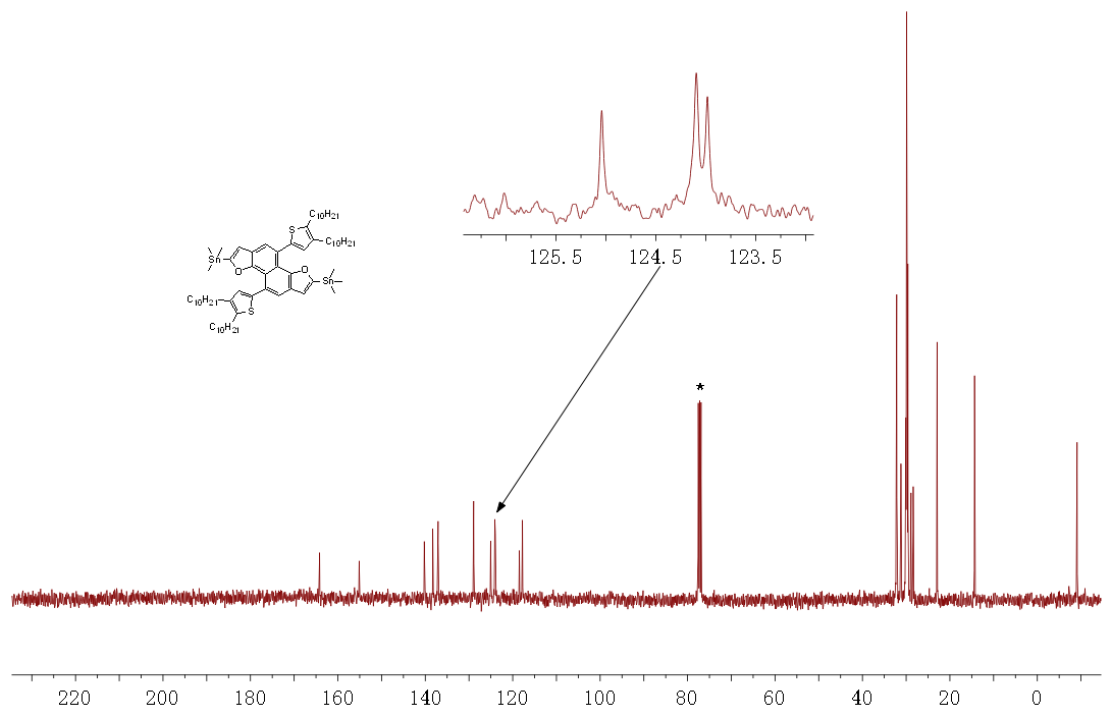


Fig. S9 ^{13}C NMR spectrum of

2,7-bis(trimethyltin)-5,10-bis(2,3-didecylthiophen-5-yl)naphtho[1,2-*b*:5,6-*b'*]difuran (**M1**)

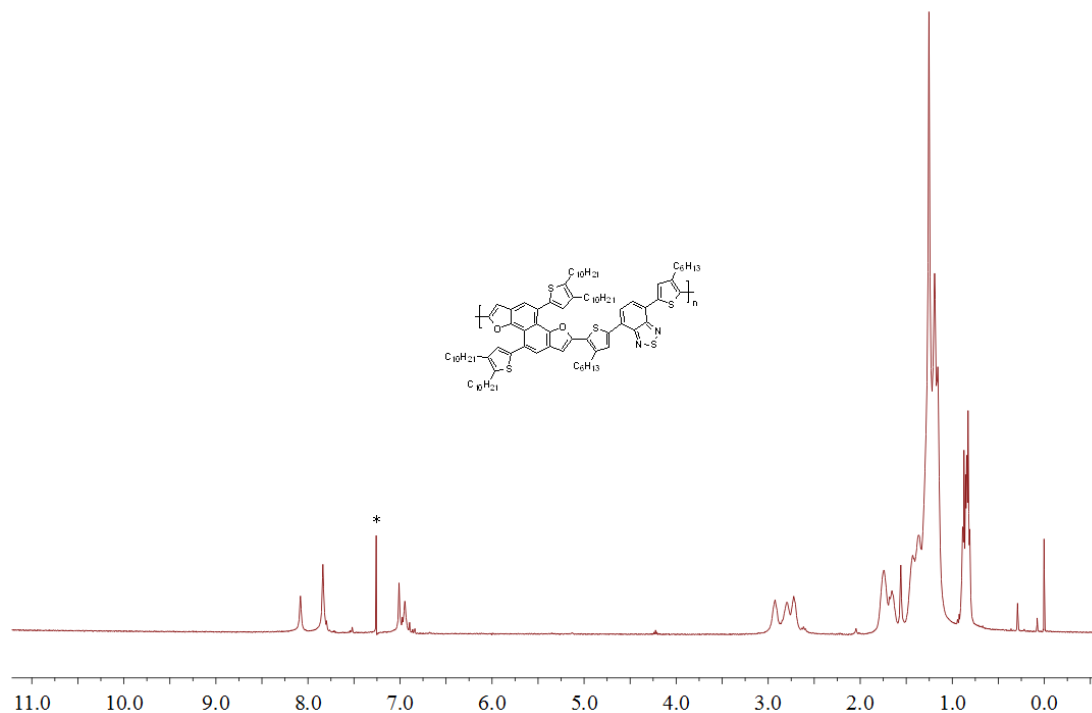


Fig. S10 ^{13}H NMR spectrum of **PNDFT-DTBT**

2. DSC thermogram of polymer

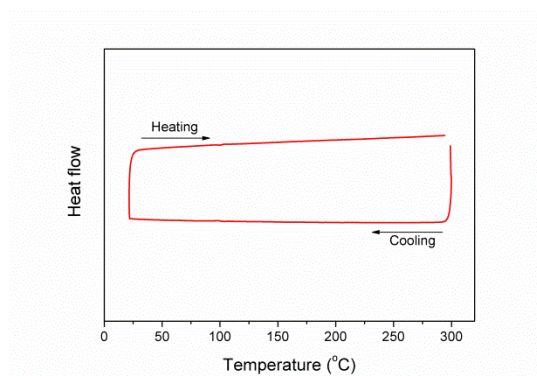


Fig. S11 DSC thermograms of first cooling and second heating scan of polymer **PNDFT-DTBT** at temperature ramp of 10 °C/min.

3. GPC curve of polymer

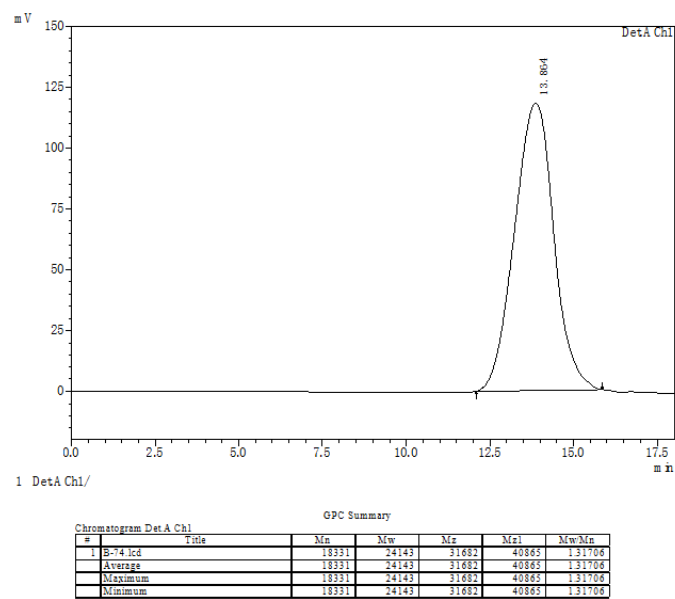


Fig. S12 GPC trace of **PNDFt-DTBT**, $M_n = 18$ kDa, $M_w = 24$ kDa, PDI = 1.3.