

Electronic Supplementary Information

Synthesis and Organic Field Effect Transistor properties of Isoindigo/DPP based polymers containing a thermo labile group

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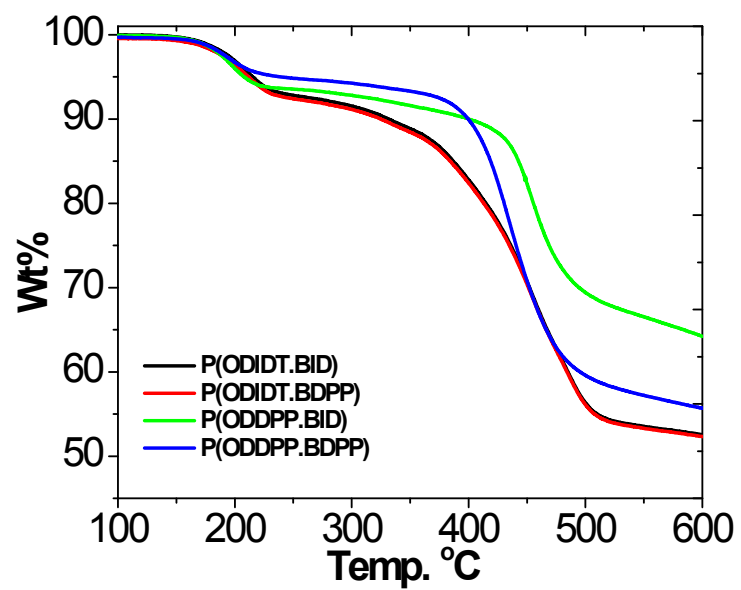


Fig. S1. The thermogravimetric analysis (TGA) of random copolymers under study.

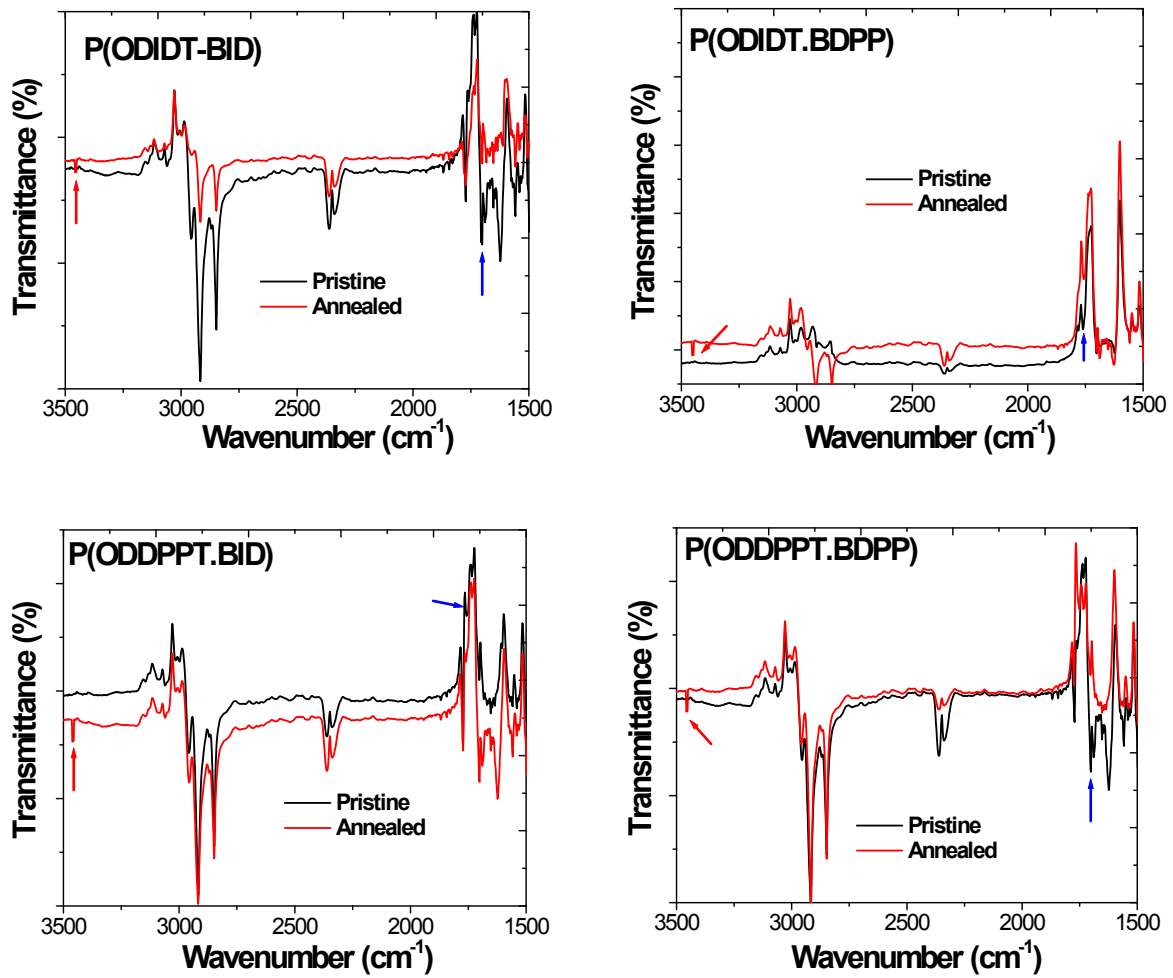


Fig. S2. FT-IR spectra for the pristine films and after thermal treatment for copolymers

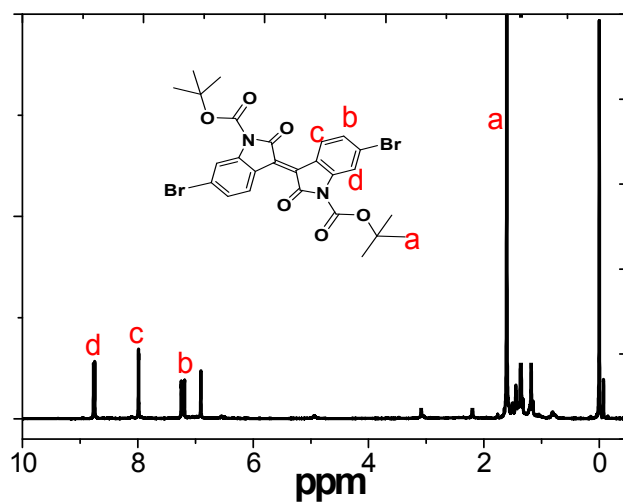


Fig. S3. ¹H NMR spectrum of (E)-tert-butyl 6-bromo-3-(6-bromo-1-(tert-butoxycarbonyl)-2-oxoindolin-3-ylidene)-2-oxoindoline-1-carboxylate (2)

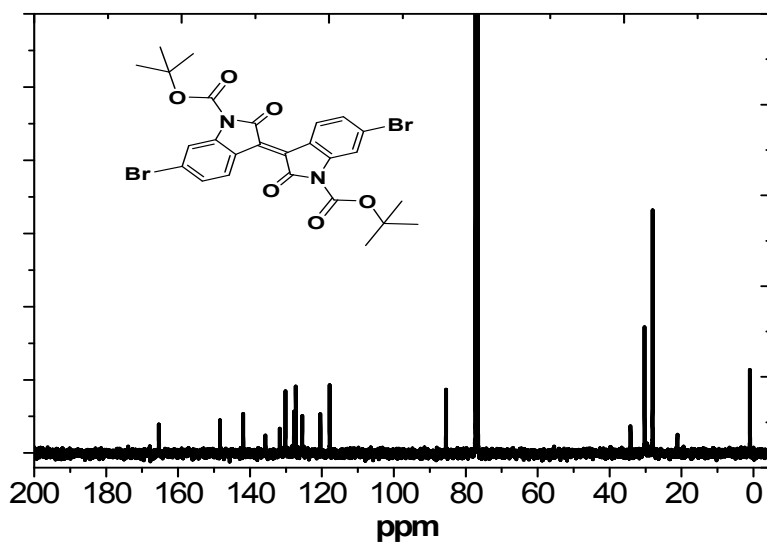


Fig. S4. ¹³C NMR spectrum of (E)-tert-butyl 6-bromo-3-(6-bromo-1-(tert-butoxycarbonyl)-2-oxoindolin-3-ylidene)-2-oxoindoline-1-carboxylate (2)

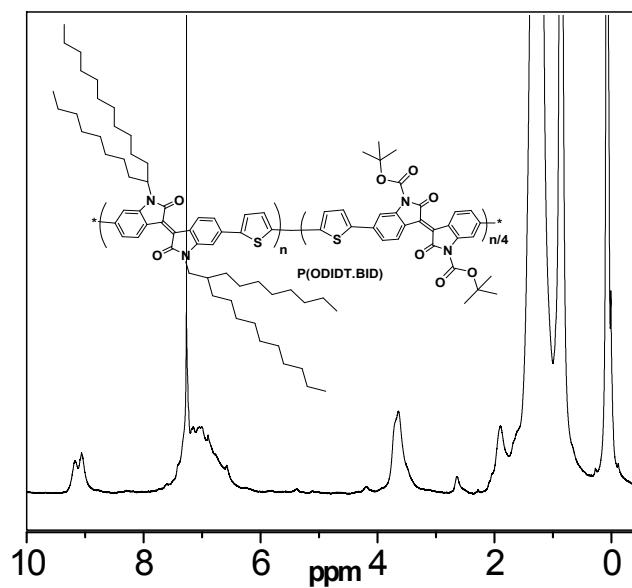


Fig. S5. ^1H NMR spectrum of poly((E)-tert-butyl 3-(1-(tert-butoxycarbonyl)-2-oxo-6-(thiophen-2-yl)indolin-3-ylidene)-6-(5-((E)-1-(2-octyldodecyl)-3-(1-(2-octyldodecyl)-2-oxoindolin-3-ylidene)-2-oxoindolin-6-yl)thiophen-2-yl)-2-oxoindoline-1-carboxylate) P(ODIDT.BID)

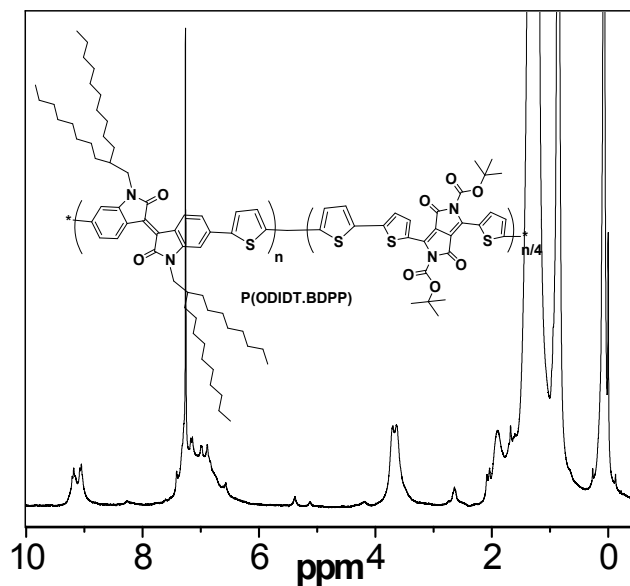


Fig. S6. ^1H NMR spectrum of poly((E)-di-tert-butyl 3-(5-(5-(1-(2-octyldodecyl)-3-(1-(2-octyldodecyl)-2-oxoindolin-3-ylidene)-2-oxoindolin-6-yl)thiophen-2-yl)thiophen-2-yl)-1,4-dioxo-6-(5-(thiophen-2-yl)thiophen-2-yl)pyrrolo[3,4-c]pyrrole-2,5(1H,4H)-dicarboxylate) P(ODIDT.BDPP)

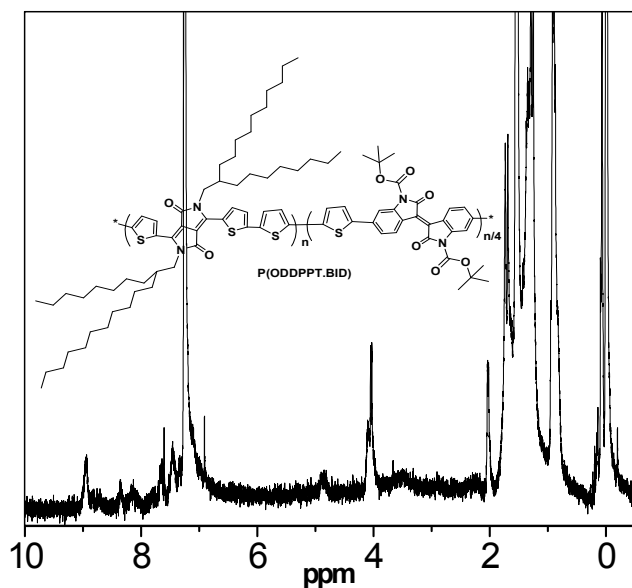


Fig. S7. ¹H NMR spectrum of poly((E)-tert-butyl 6-(5-(5-(2,5-bis(2-octyldodecyl)-3,6-dioxo-4-(thiophen-2-yl)-2,3,5,6-tetrahydropyrrolo[3,4-c]pyrrol-1-yl)thiophen-2-yl)thiophen-2-yl)-3-(1-(tert-butoxycarbonyl)-2-oxo-6-(thiophen-2-yl)indolin-3-ylidene)-2-oxoindoline-1-carboxylate) P(ODDPPT.BID)

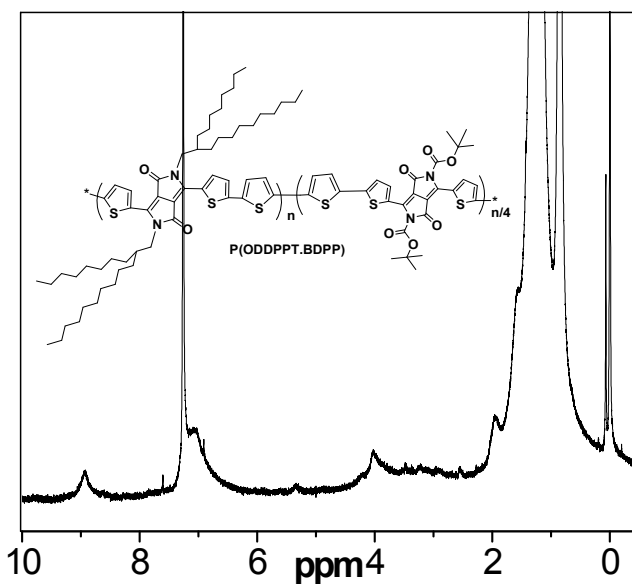


Fig. S8. ¹H NMR spectrum of poly(di-tert-butyl 3-(5-(5-(5-(2,5-bis(2-octyldodecyl)-3,6-dioxo-4-(thiophen-2-yl)-2,3,5,6-tetrahydropyrrolo[3,4-c]pyrrol-1-yl)thiophen-2-yl)thiophen-2-yl)thiophen-2-yl)-1,4-dioxo-6-(5-(thiophen-2-yl)thiophen-2-yl)pyrrolo[3,4-c]pyrrole-2,5(1H,4H)-dicarboxylate) P(ODDPPT.BDPP)