Supplementary Information

Influences of Side Chain Length and Bifurcation Point on Crystalline Structure and Charge Transport of Diketopyrrolopyrrole-Quaterthiophene Copolymers (PDQTs)

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Contents

Additional data: ^{1}H-NMR and ^{13}C-NMR spectra, diagrams of thermal gravimetric analysis (TGA), differential scanning calorimetry (DSC), and cyclic voltammograms (CV).

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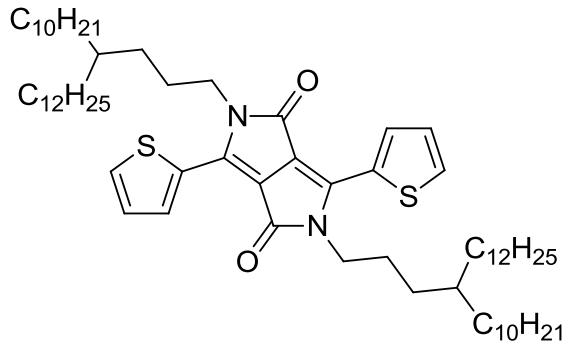


^{1}H-NMR ($CDCl_3$, 300 MHz)

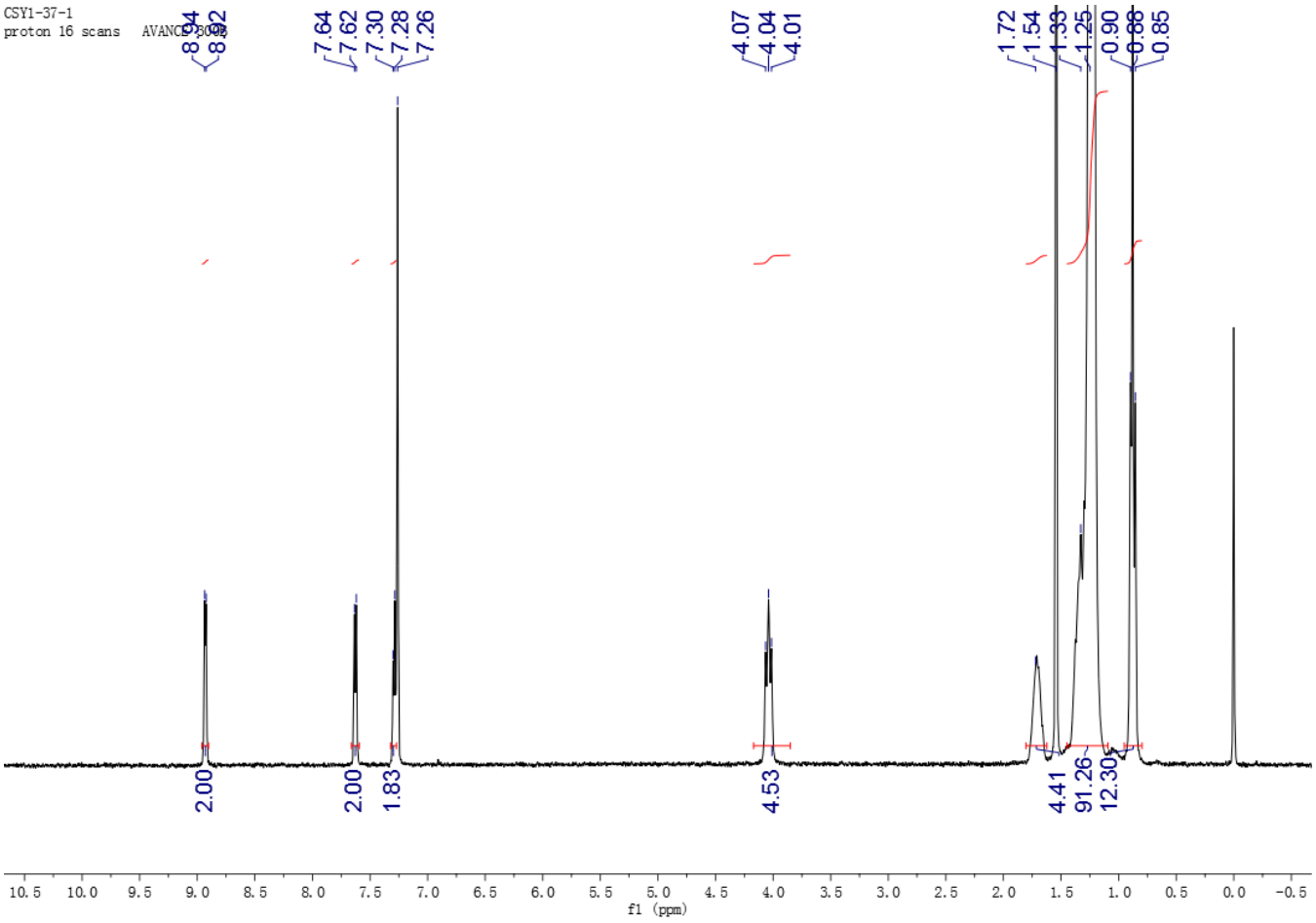
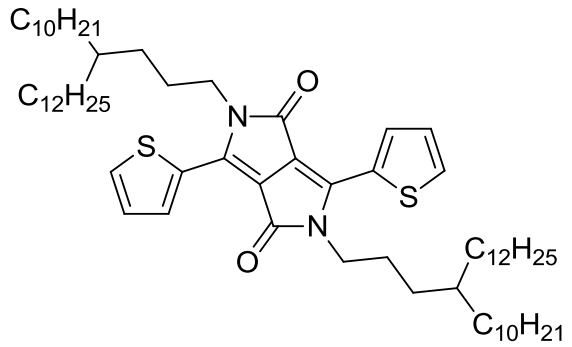


Figure S1 The ^{1}H-NMR spectrum of **DBT-26**.

Supplementary Information



^{13}C-NMR ($CDCl_3$, 75 MHz)

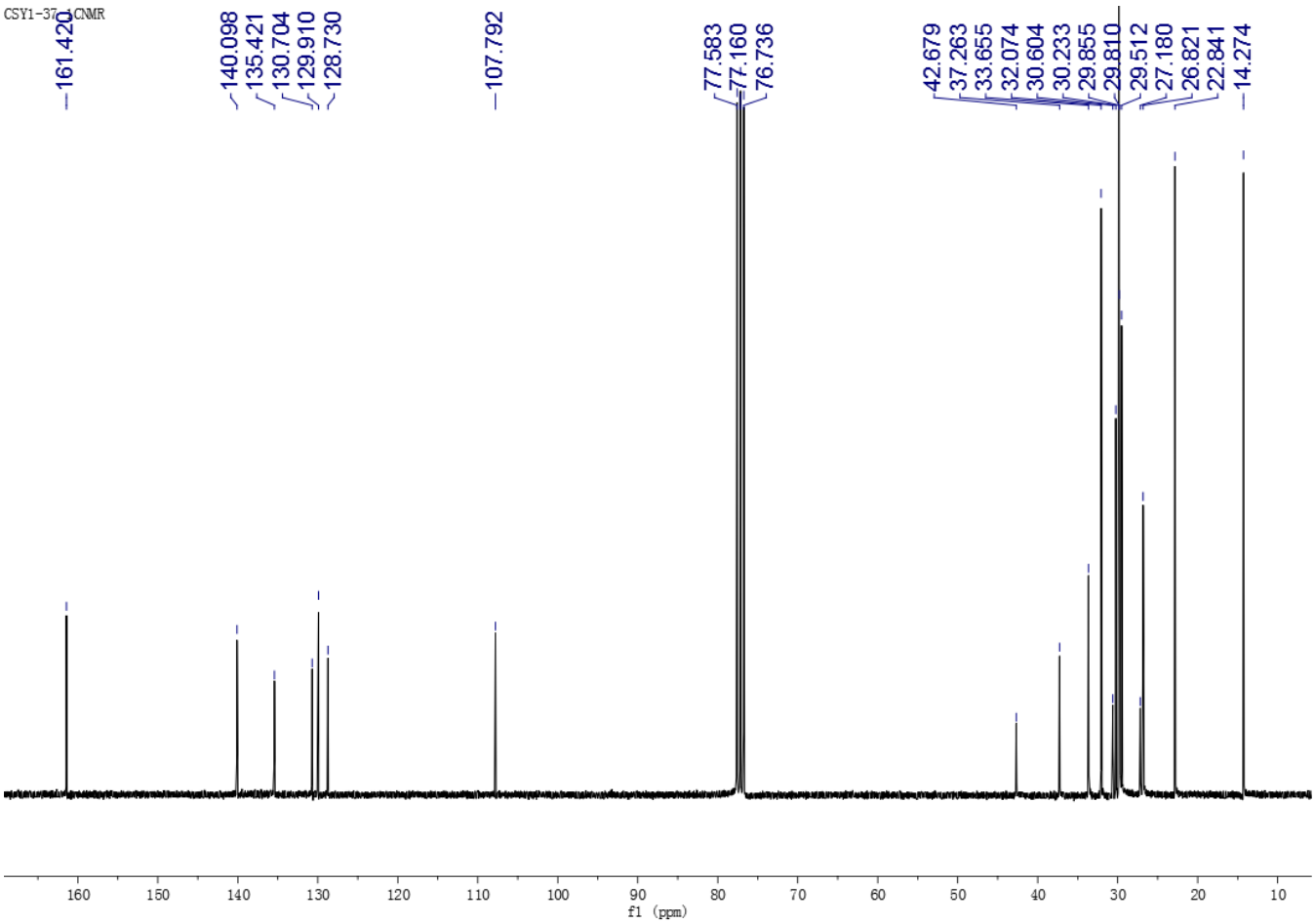


Figure S2 The ^{13}C-NMR spectra of **DBT-26**.

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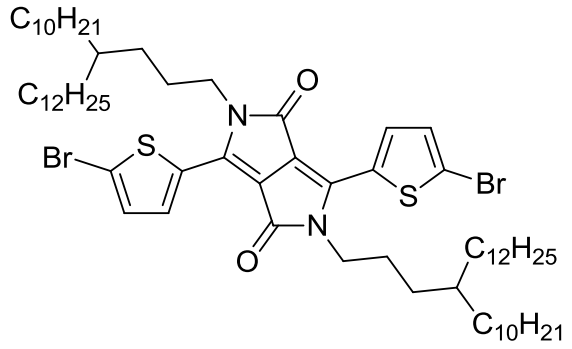

^{1}H-NMR ($CDCl_3$, 300 MHz)

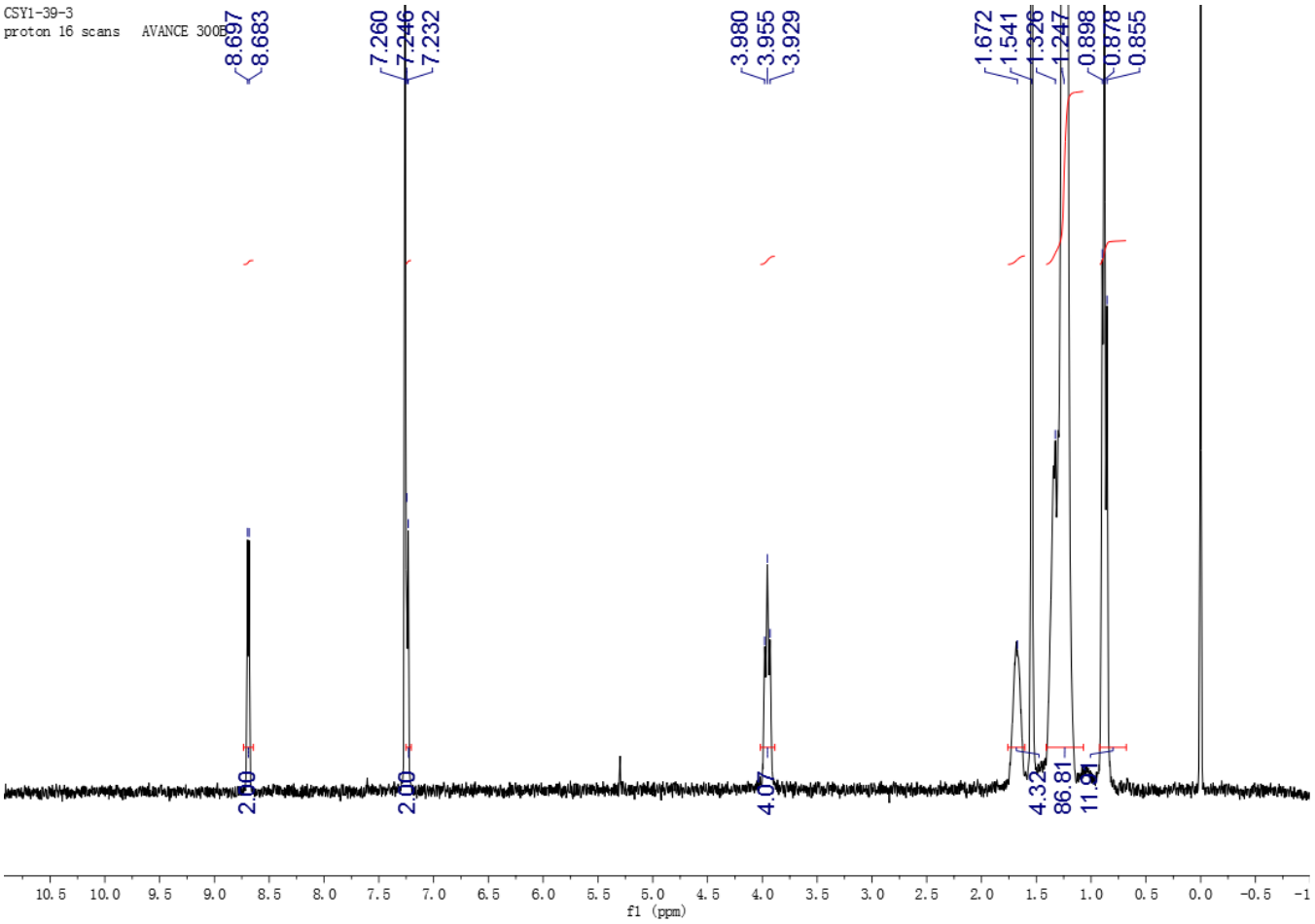

Figure S3 The ^{1}H-NMR spectrum of **M-26**.

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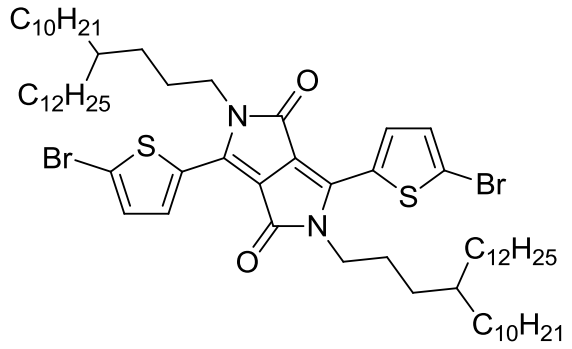

^{13}C-NMR ($CDCl_3$, 75 MHz)

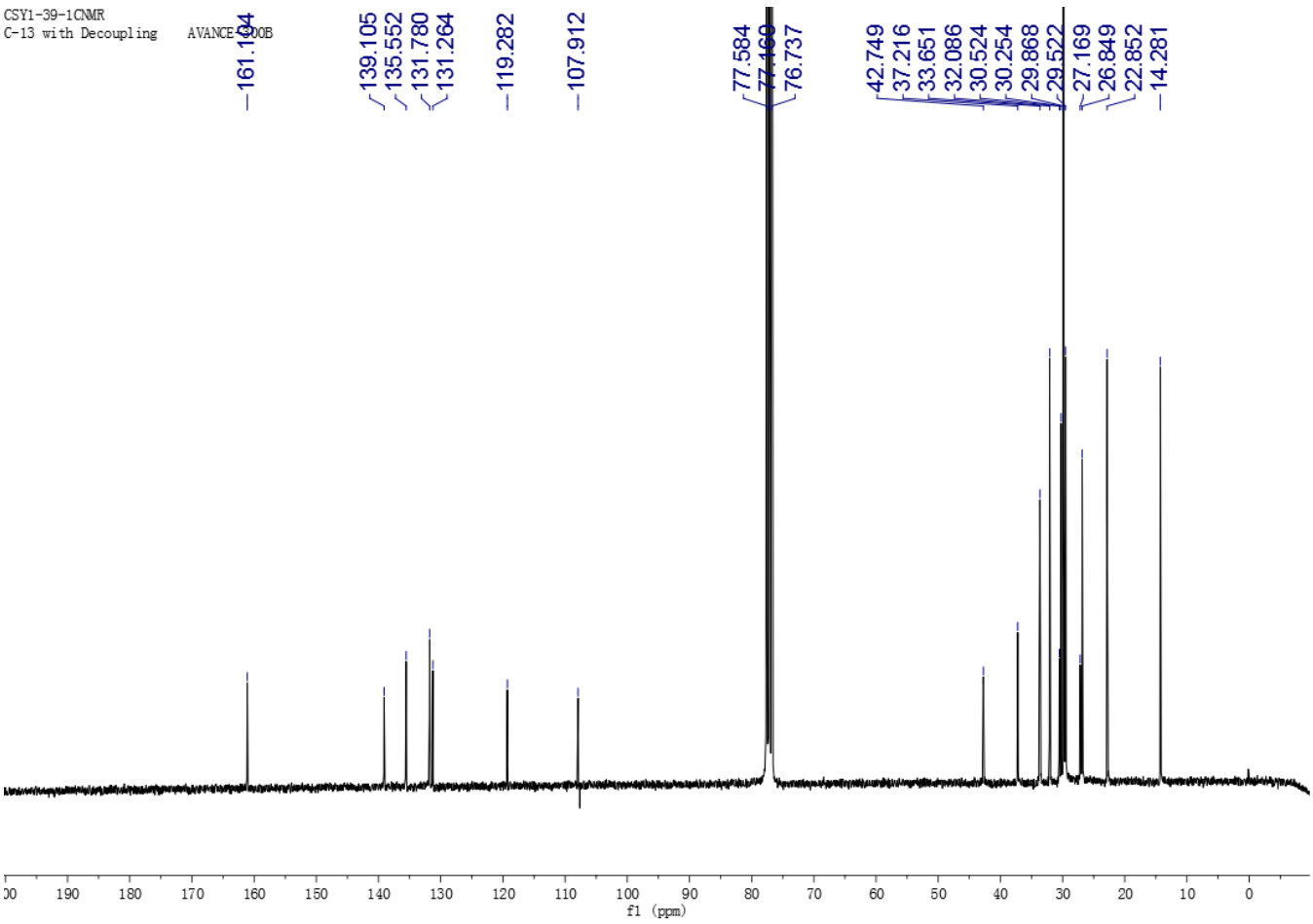

Figure S4 The ^{13}C-NMR spectrum of **M-26**.

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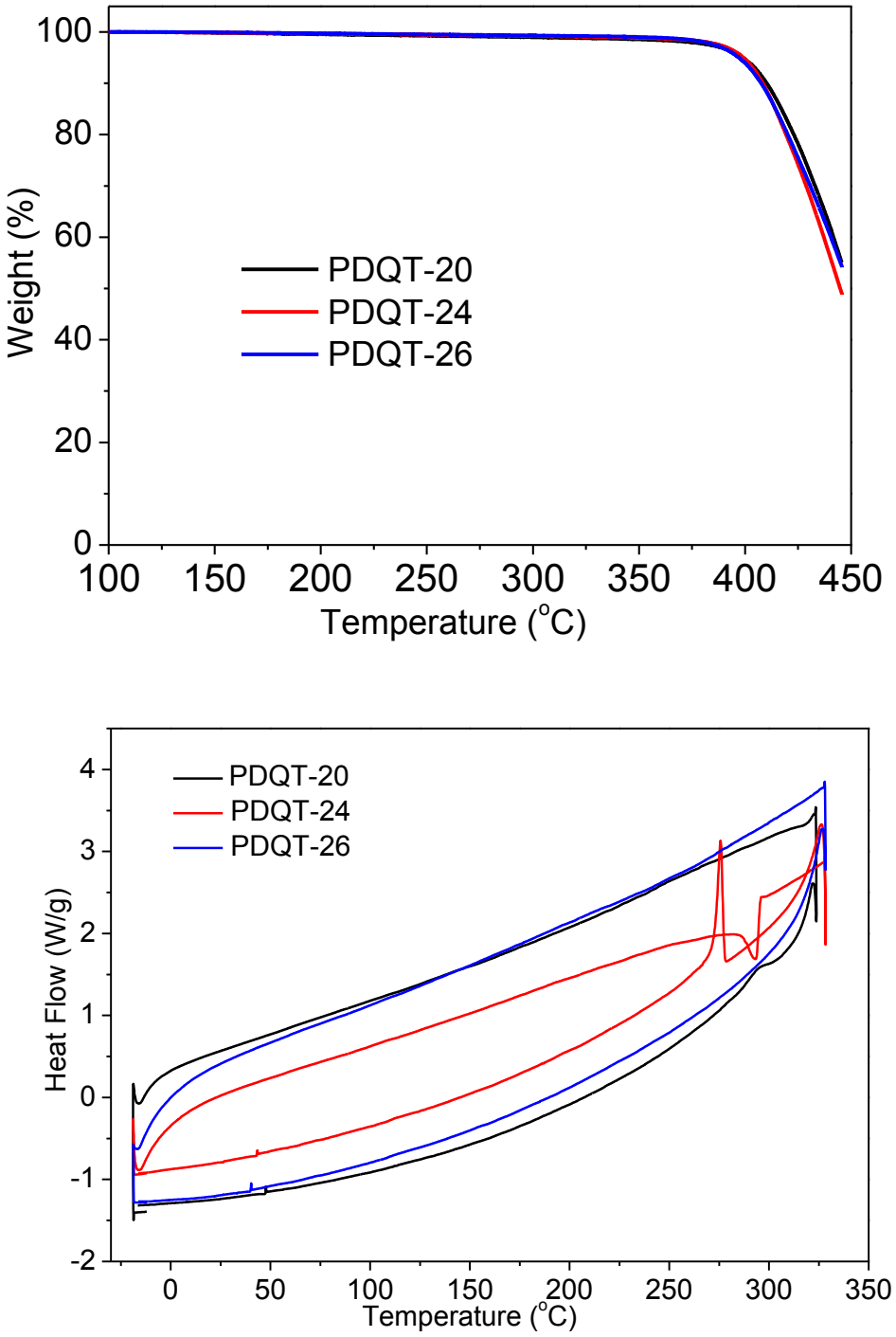

Figure S5 Diagrams of thermal analysis of **PDQT-20**, **PDQT-24** and **PDQT-26**. Top: TGA curves with a heating rate of 10 °C min^{-1} under N_2. Bottom: DSC curves with a heating rate of 10 °C min^{-1} under nitrogen.

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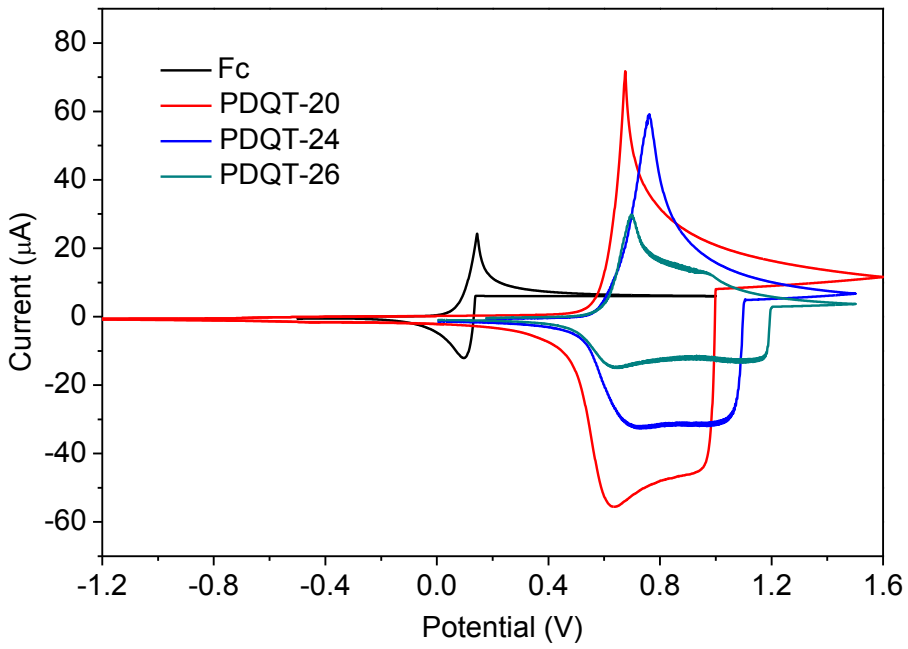

Figure S6 Cyclic voltammograms of **PDQT-20**, **PDQT-24** and **PDQT-26** thin films in 0.1 M tetrabutylammonium hexafluorophosphate in dry acetonitrile at a sweeping rate of 50 mV s^{-1} under nitrogen using ferrocene (Fc) as a standard.