

Supporting Information for *New Journal of Chemistry*:

**Synthesis and electro-optical properties of new conjugated
hybrid polymers from EDOT end capped dibenzothiophene
and dibenzofuran**

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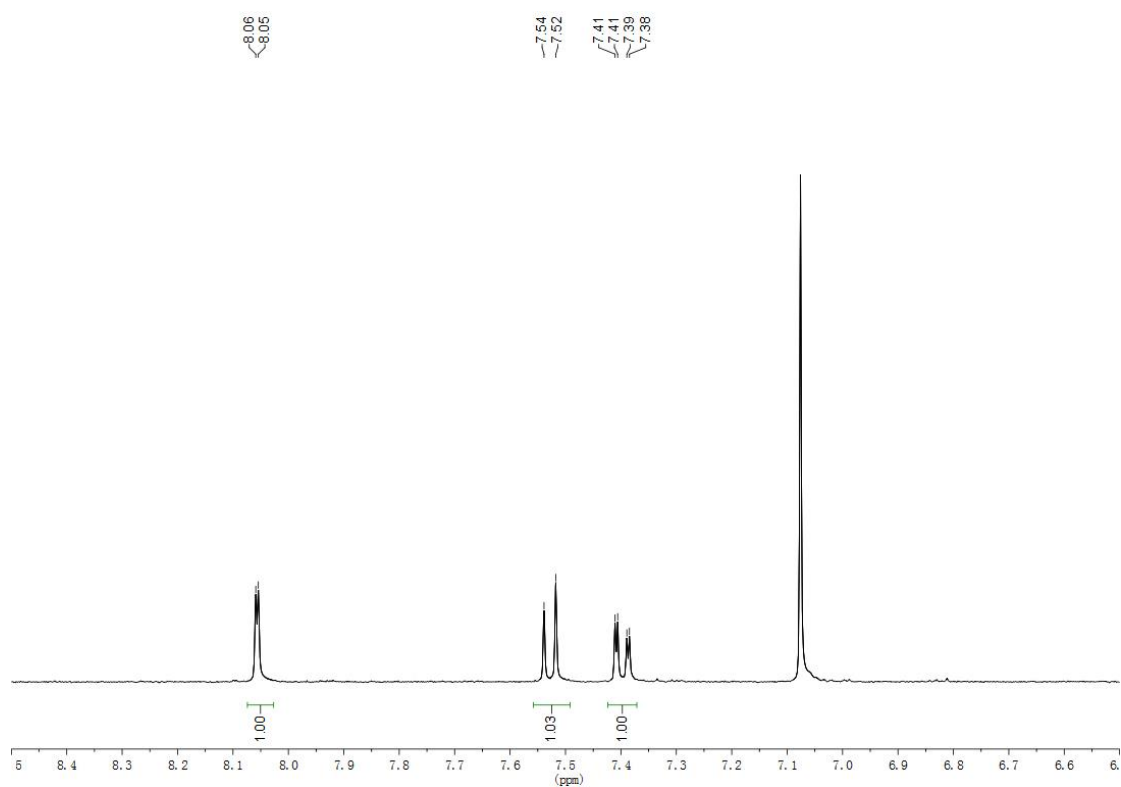


Fig. S1 ^1H NMR spectrum of 2,8-dibromodibenzothiophene.

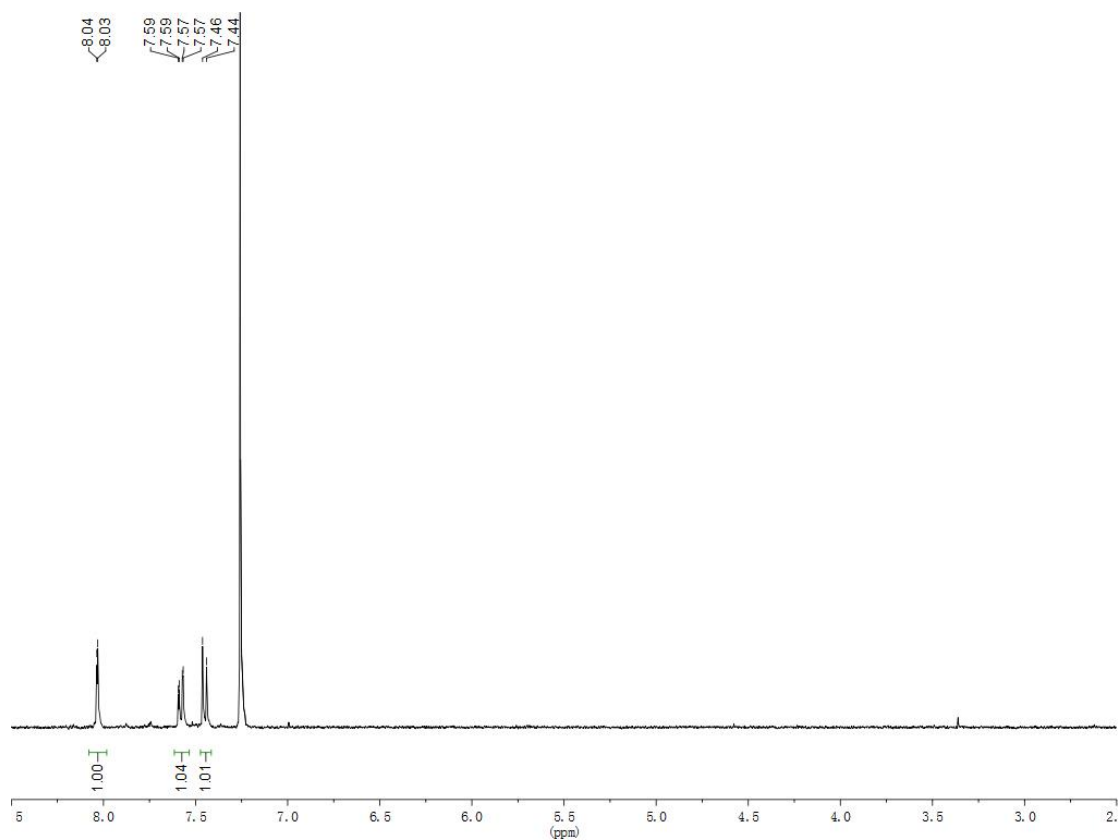


Fig. S2 ^1H NMR spectrum of 2,8-dibromodibenzofuran.

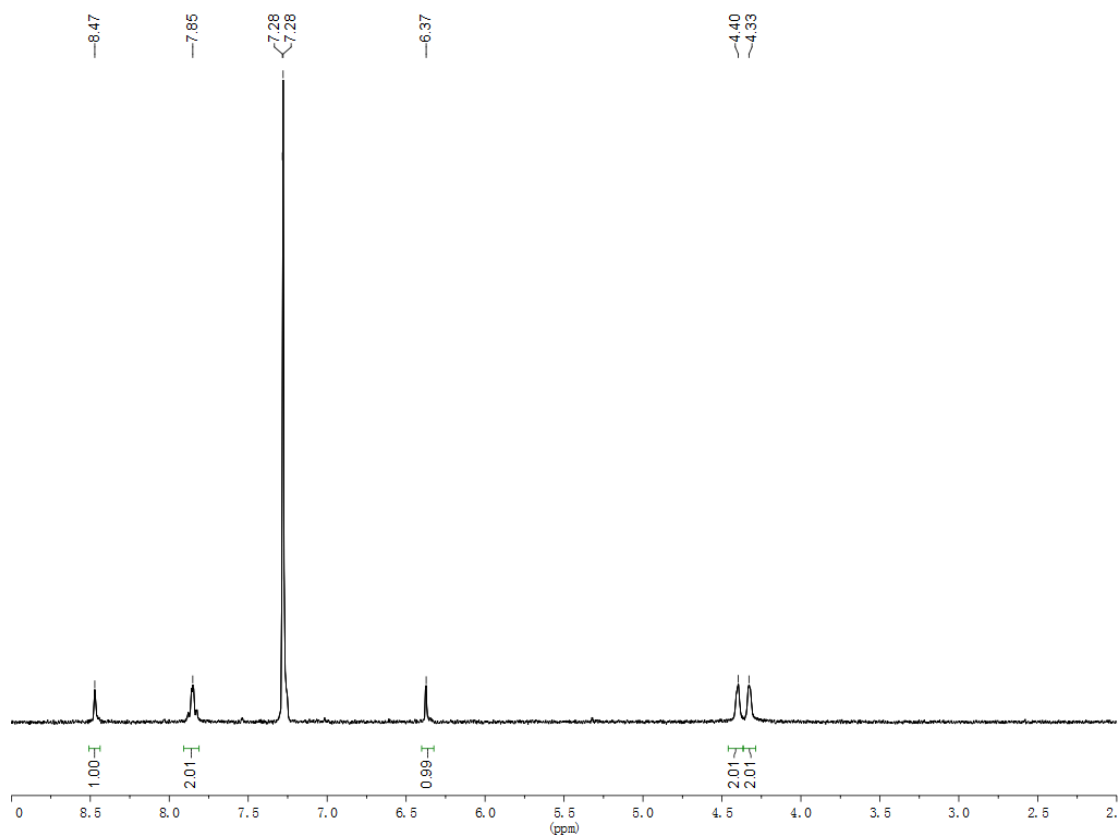


Fig. S3 ^1H NMR spectrum of DBT-EDOT.

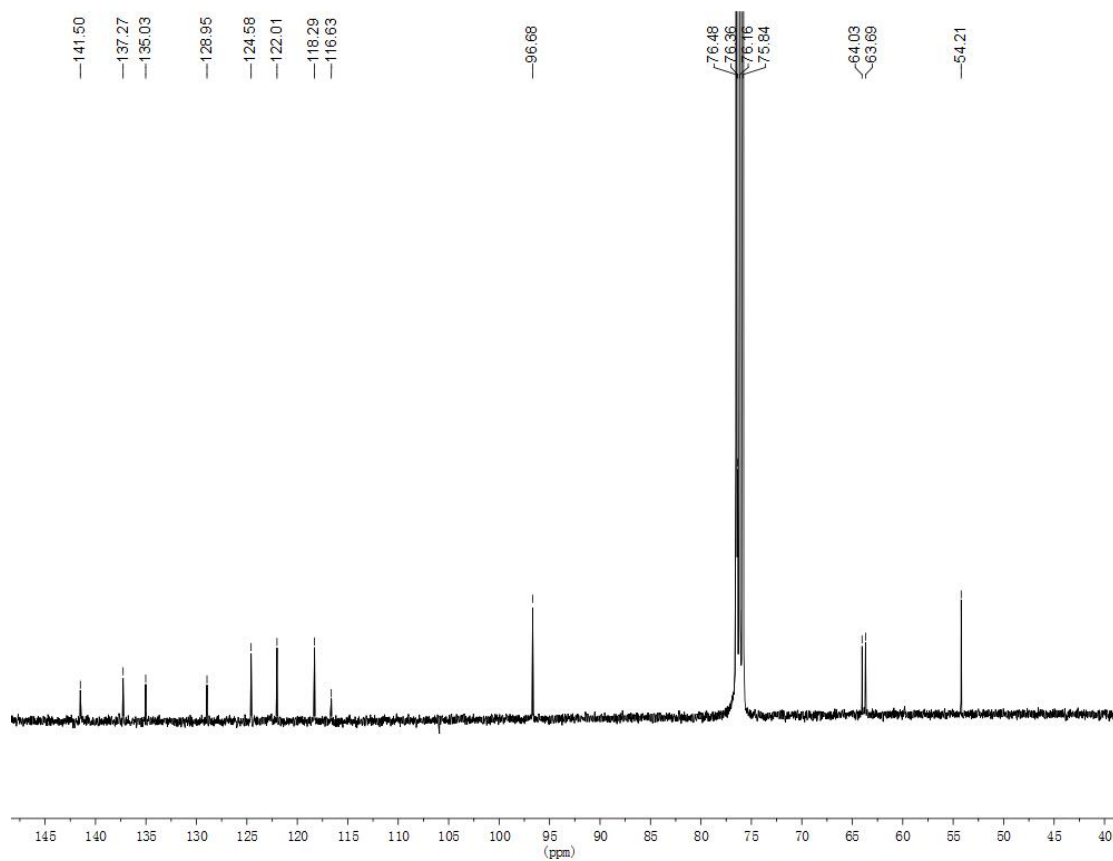


Fig. S4 ^{13}C NMR spectrum of DBT-EDOT.

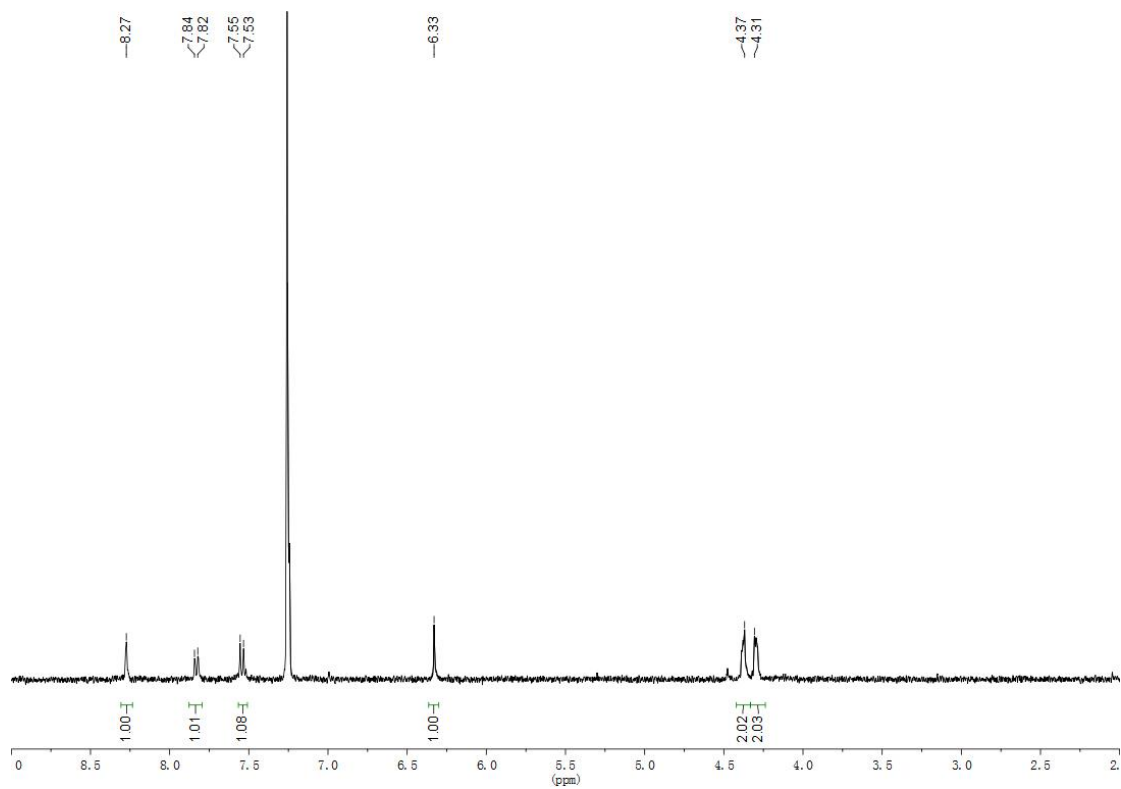


Fig. S5 ^1H NMR spectrum of DBF-EDOT.

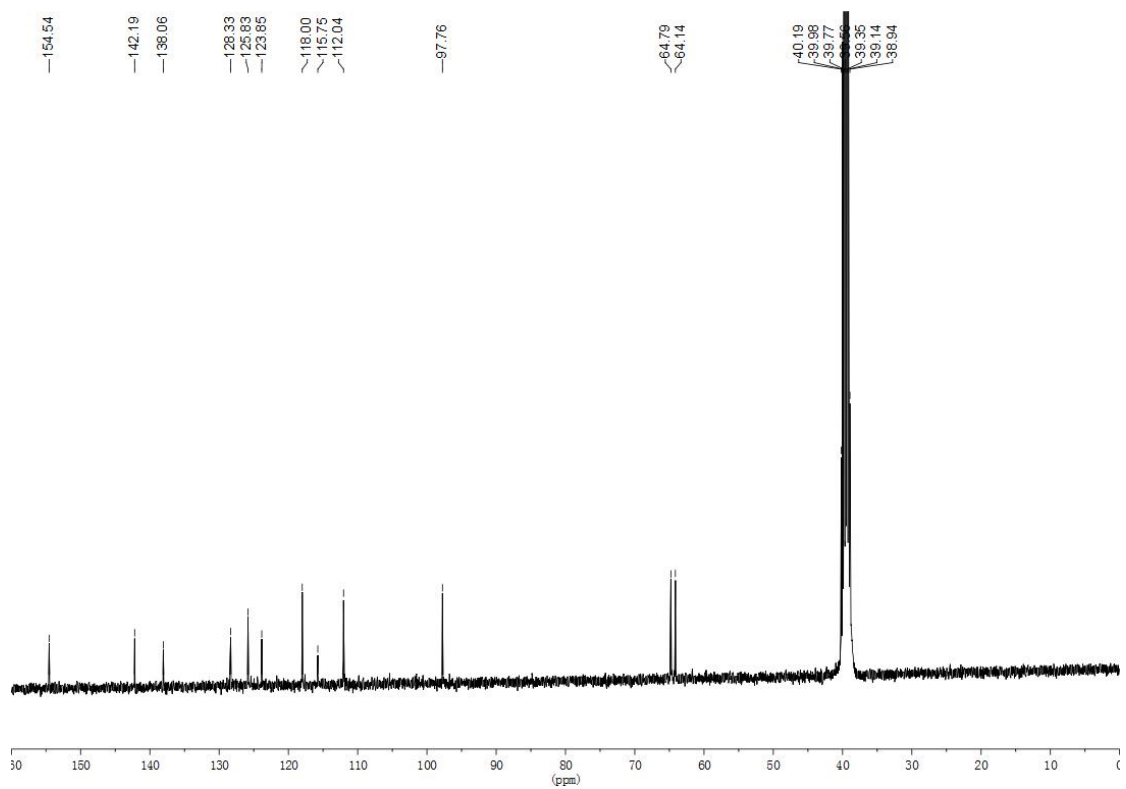


Fig. S6 ^{13}C NMR spectrum of DBF-EDOT.

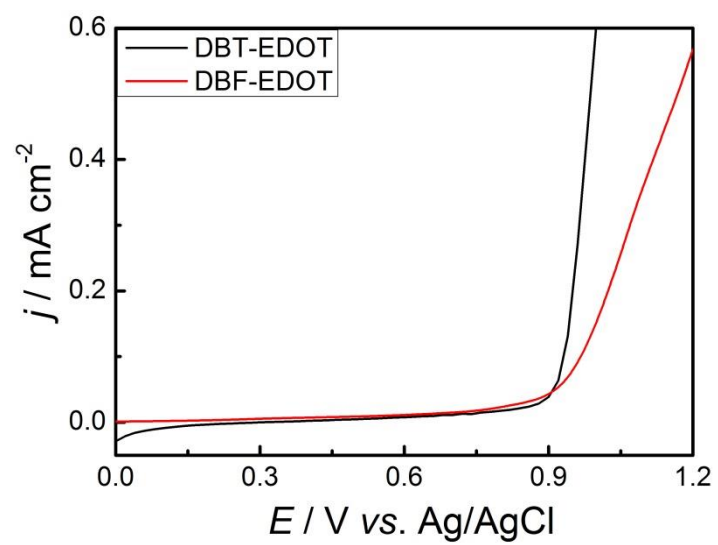


Fig. S7 Anodic polarization curves of 0.01 mol L^{-1} DBT-EDOT and DBF-EDOT in $\text{CH}_2\text{Cl}_2\text{-Bu}_4\text{NPF}_6$ (0.1 mol L^{-1}). Potential scan rate: 50 mV s^{-1} .

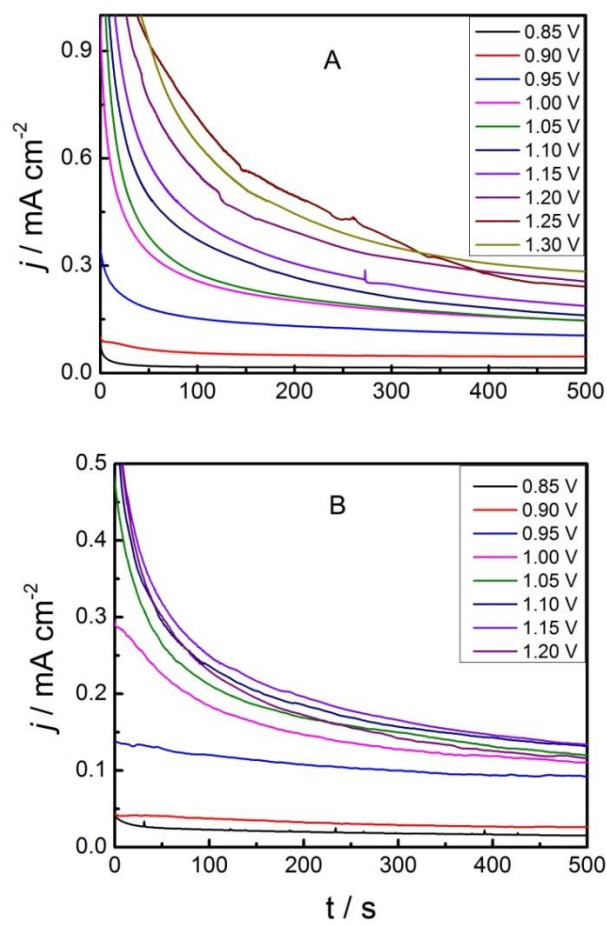


Fig. S8 Chronoamperograms of 0.01 mol L^{-1} DBT-EDOT (A), and DBF-EDOT (B) in $\text{CH}_2\text{Cl}_2\text{-Bu}_4\text{NPF}_6$ (0.1 mol L^{-1}) on Pt electrode at different applied potentials for 500 s.

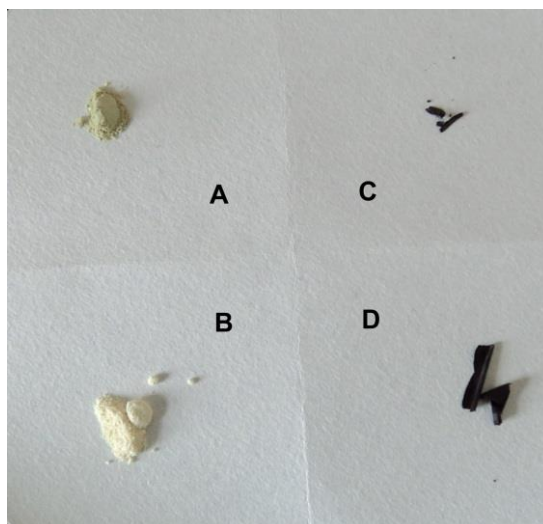


Fig.S9 Samples of DBT-EDOT (A), DBF-EDOT (B), and corresponding polymers P(DBF-EDOT) (C), and P(DBT-EDOT) (D) by electropolymerization in $\text{CH}_2\text{Cl}_2\text{-Bu}_4\text{NPF}_6$ (0.1 mol L^{-1}).

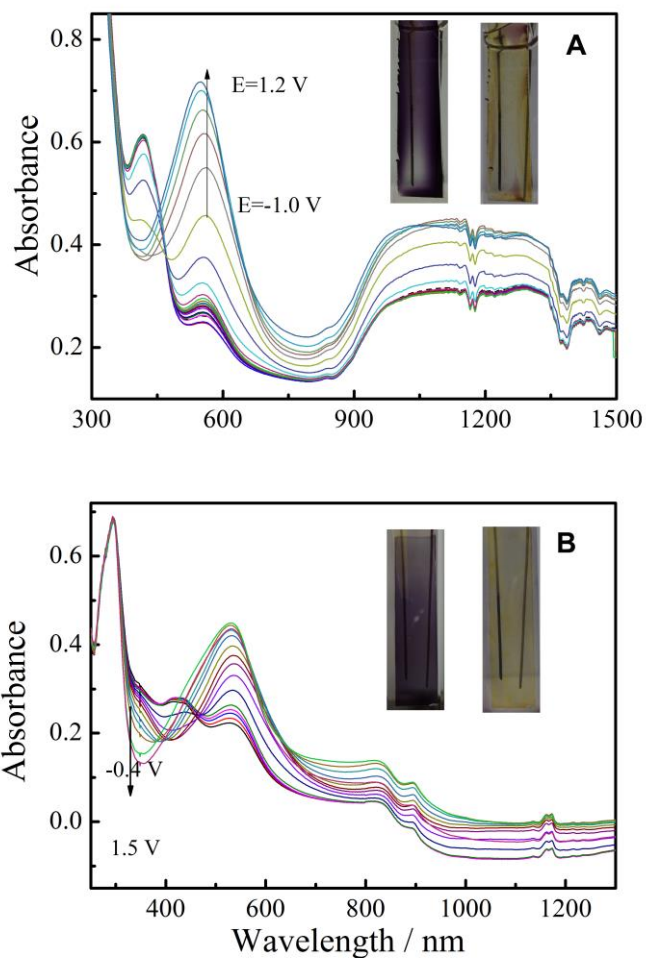


Fig.S10 Spectroelectrochemistry for P(DBT-DEDOT) (A) on the ITO coated glass in $\text{CH}_3\text{CN}-\text{Bu}_4\text{NPF}_6$ (0.1 mol L⁻¹) between -1.0 V and 1.2 V ($\Delta E = 0.1$ V). P(DBF-EDOT) (B) on the ITO coated glass in $\text{CH}_3\text{CN}-\text{Bu}_4\text{NPF}_6$ (0.1 mol L⁻¹) between -0.4 V and 1.5 V ($\Delta E = 0.1$ V).