Supplementary Material (ESI) for Journal of Materials Chemistry

Supplementary Information

Blue to Highly Transmissive Soluble Electrochromic Based on Poly(3,4-propylenedioxyselenophene) with High Stability and Coloration Efficiency

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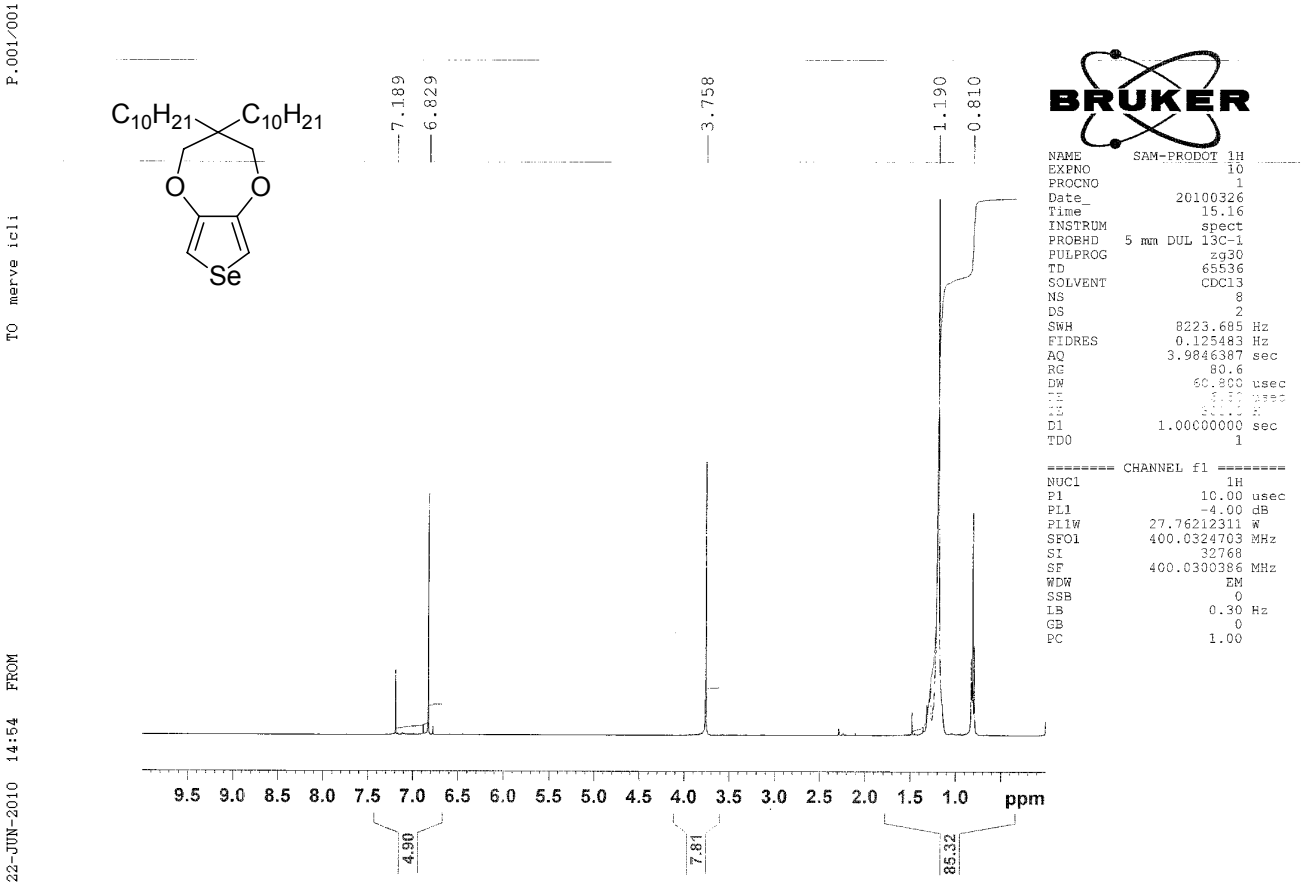

Figure S1. ^{1}H NMR of ProDOS-C_{10}.

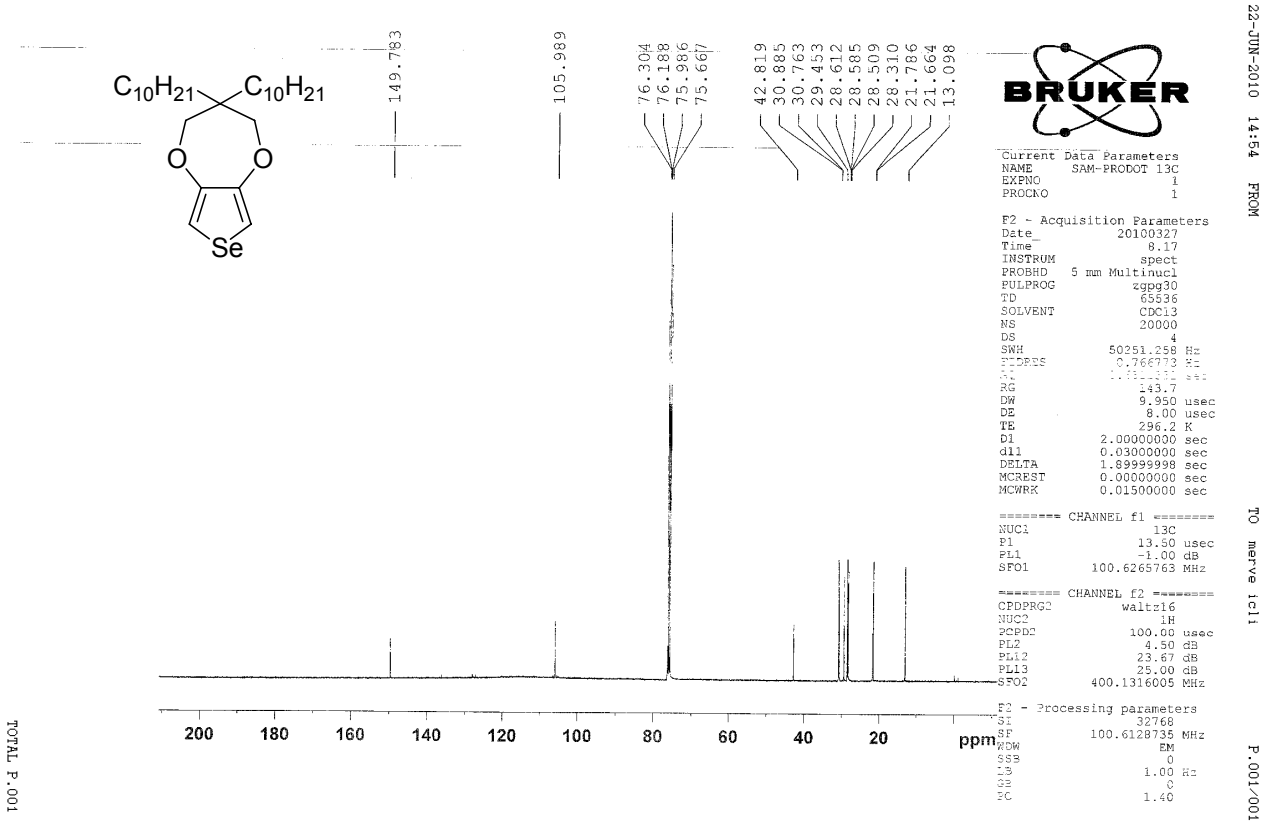

Figure S2. ^{13}C NMR of ProDOS-C_{10}.

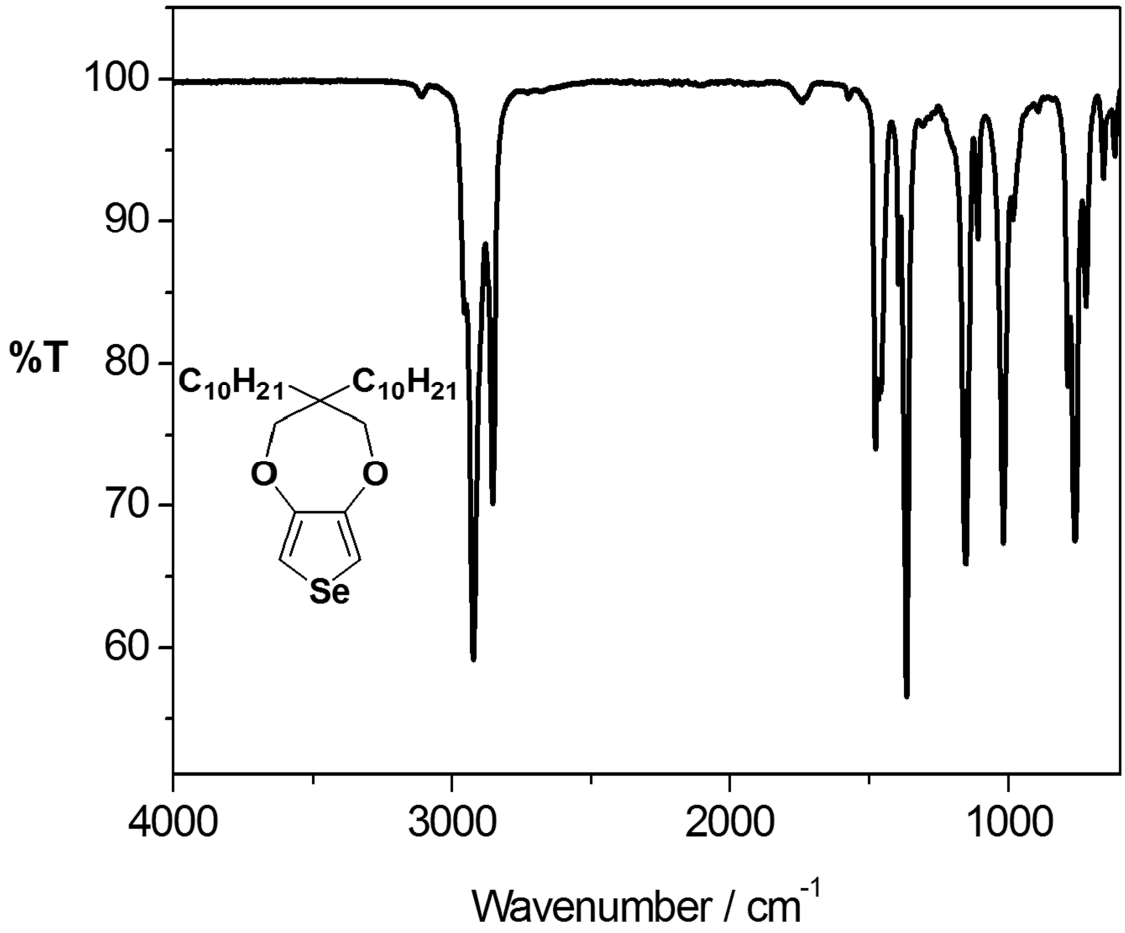

Figure S3. FTIR of ProDOS-C_{10}.

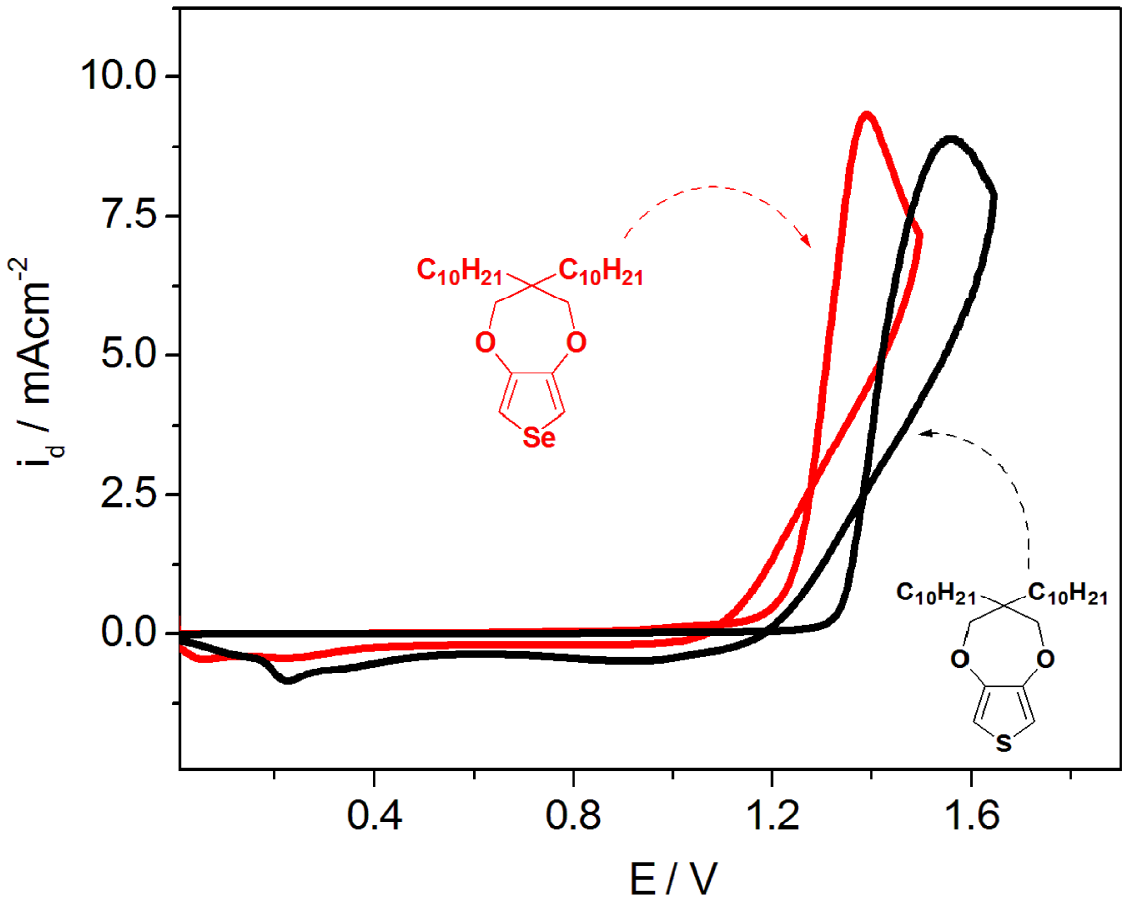

Figure S4. Cyclic voltamograms of ProDOT-C_{10} and ProDOS-C_{10} in 0.1 M TBAH/ DCM at a scan rate of 100 mV/s vs. Ag/AgCl.

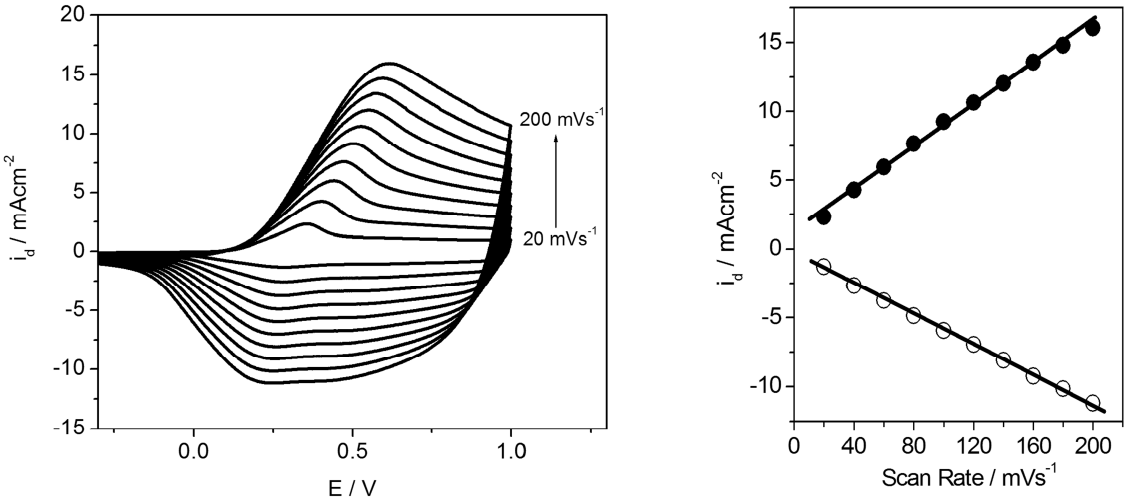

Figure S5. Scan rate dependence of PProDOS-C_{10} film on a Pt disk electrode in 0.1 M TBAH/ACN at different scan rates between 20 mV/s and 200 mV/s with an increment of 20 mV/s. (b) Relationship of anodic and cathodic current peaks as a function of scan rate between neutral and oxidized states of PProDOS-C_{10} film in 0.1M TBAH/ACN.

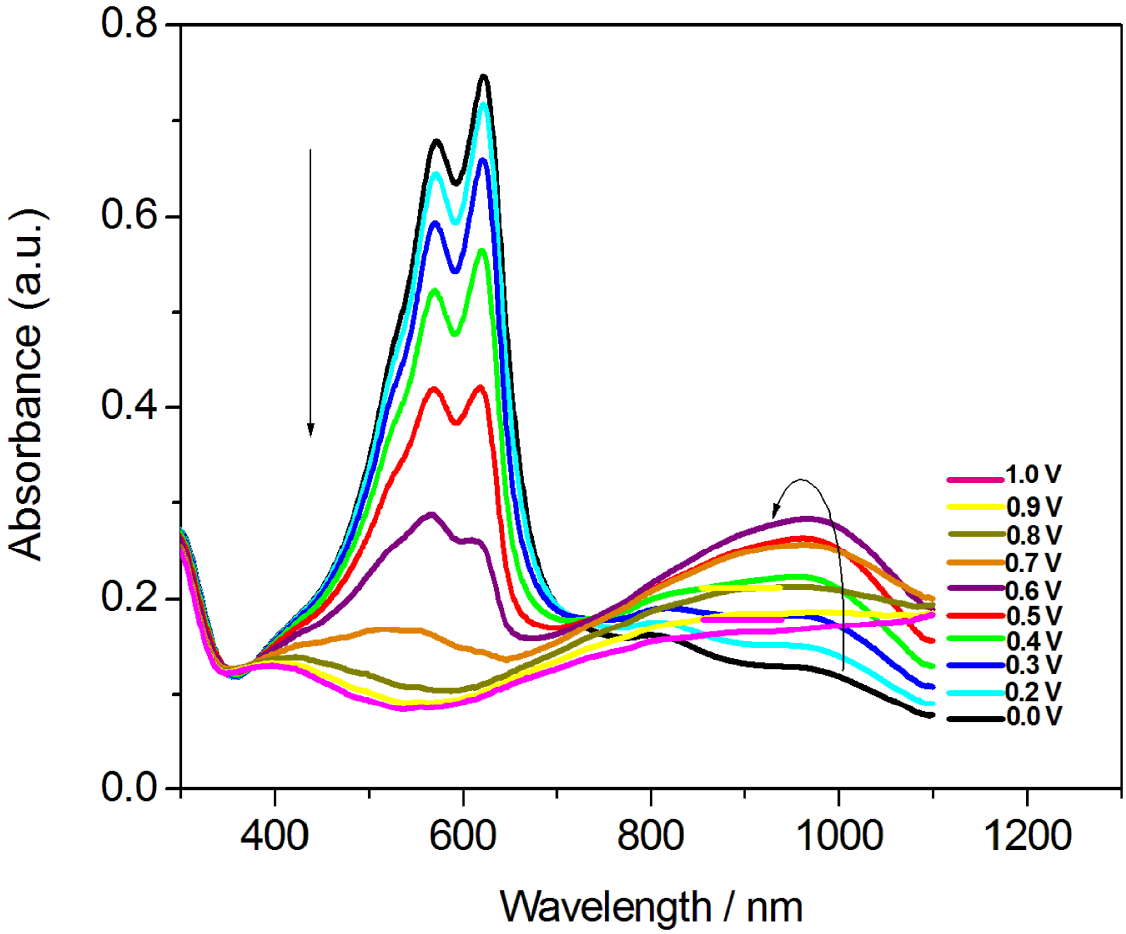

Figure S6. Optical absorption spectra of PProDOT-C_{10} on ITO in 0.1 M TBAH/ACN at various applied potentials between 0.0 V and 1.0 V.

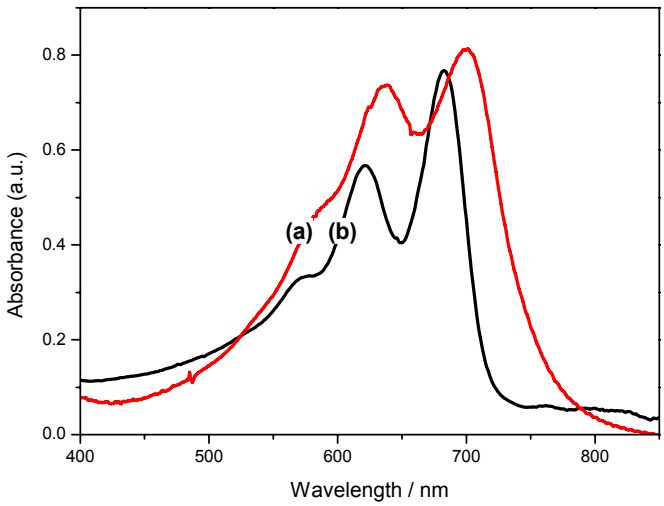

Figure S7. Absorption spectra of PProDOS-C_{10} film (a) coated on ITO electrode and (b) after dissolving in THF.