Supporting Information for:

A Precursor Strategy for the Synthesis of Low Band-Gap Polymers: An Efficient Route to a Series of Near-Infrared Electrochromic Polymers

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- Figure S1. TGA traces of polymers P1-P5.
- Figure S2. Normalized absorption (top) and fluorescence emission (bottom) spectra of polymers **P1-P5** in film.
- Figure S3. Photos of polymers **P1-P5** in solid state (top) and in chlorobenzene (bottom).
- Figure S4. Photography of green polymer **P3** on cloth with a leaf.
- Figure S5. Cyclic voltammograms of films of polymers **P1** and **P3-P5** on ITO glass plate in CH₃CN containing 0.1 M Et₄NClO₄.
- Figure S6. The neutral, radical cation and dication states during the redox process of polymer **P3**.
- Figure S7. Absorption spectra of **P3** film on ITO glass plate in its neutral, cation and dication states.
- Figure S8. ¹H NMR spectrum of monomer **2**.



Figure S1. TGA curves of **P1-P5**.



Figure S2. Normalized absorption (top) and fluorescence emission (bottom) spectra of polymers **P1-P5** in film.



Figure S3. Photos of polymers **P1-P5** in solid state (top) and in chlorobenzene (bottom).



Figure S4. Photography of green polymer P3 on cloth with a leaf.



Figure S5. Cyclic voltammograms of films of polymers **P1** and **P3-P5** on ITO glass plate in CH_3CN containing 0.1 M Et₄NClO₄.



Figure S6. The neutral, radical cation and dication states during the redox process of polymer **P3**.



Figure S7. Absorption spectra of **P3** film on ITO glass plate in its neutral, cation and dication states.



Figure S8. ¹H NMR spectrum of monomer 2.