

**SPANNING THE SPECTRUM WITH DONOR-ACCEPTOR POLYMERS FOR ELECTROCHROMICS AND PHOTOVOLTAICS.**

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Analogous to the great turn of the century double play combination of Tinkers to Evers to Chance, the research directed by Seth Marder is of the highest impact due to the effective collaborations and interactions it brings. This is true throughout to field of organic electronic and redox active devices that provide a response or interaction over large-areas and on flexible substrates as enabled by access to solution processable conjugated polymers. We will discuss and compare results on a family of fully conjugated polyheterocycles and crosslinkable telechelic oligomers with controlled light absorption for photovoltaic and electrochromic applications. Two band absorption induced by the incorporation of a donor-acceptor-donor (DAD) triad induces long wavelength light collection well into the near infrared for highly efficient (PCE > 6%) organic photovoltaic (PV) devices, along with providing the full color palette of processable vibrantly-colored to transmissive electrochromic (EC) polymers.