

Supporting Information

Fast Switching Water Processable Electrochromic Polymers

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Table S1. GPC estimated Molecular Weights in THF, Elemental Analysis of the Polymers

	Monomer 5 ratio	Monomer 7 ratio (x)	Monomer 8 ratio (y)	M _n (g/mol)	M _w (g/mol)	PDI	EA (Calcd/Found)		
							C	H	N
ECP-Blue-A	1	/	1	25,800	38,500	1.5	67.23/66.94	7.52/7.64	2.49/2.42
ECP-Blue-R	1	0.7	0.3	13,900	23,300	1.7	67.46/67.11	7.79/7.89	0.73/0.68

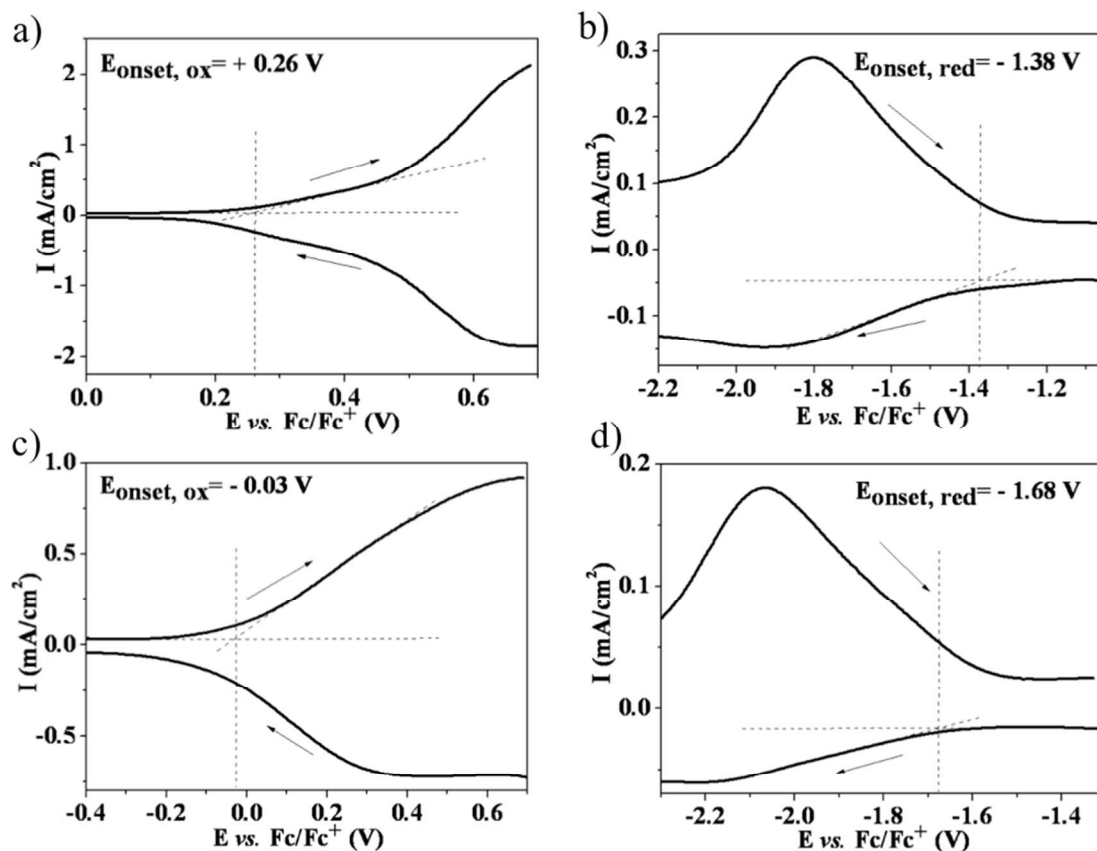


Figure S1. Differential pulse voltammetry of ECP-Blue-A ((a) oxidation and (b) reduction) and ECP-Blue-R ((c) oxidation and (d) reduction) drop-cast from toluene solution onto platinum button electrode ($A = 0.02 \text{ cm}^2$). Measurements were performed in 0.2 M LiBTI /propylene carbonate (PC) with a Pt foil counter electrode and a Ag/Ag^+ reference electrode calibrated vs Fc/Fc^+ ($E_{\text{Fc}/\text{Fc}^+} = 0.085 \text{ V}$ vs Ag/Ag^+).

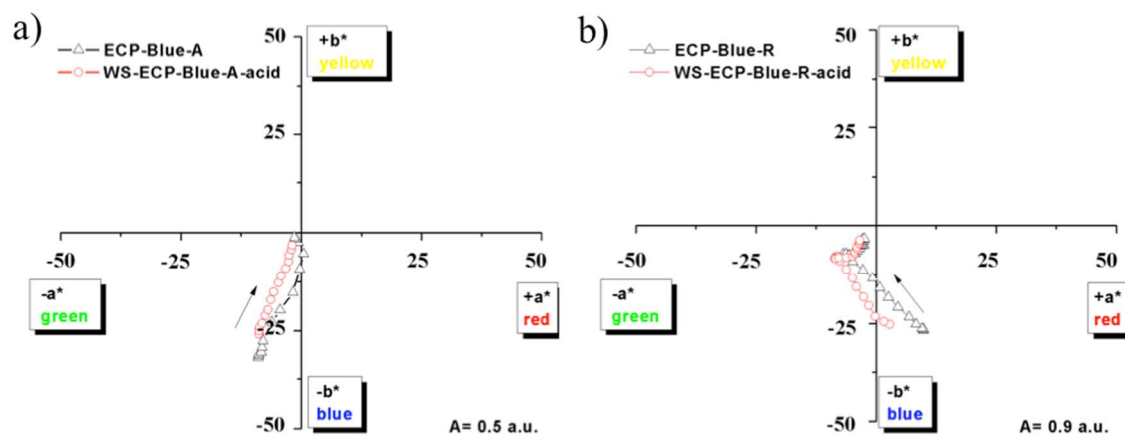


Figure S2.Plot of CIE 1976 a^*b^* color coordinates showing calculated values of (a) ECP-Blue-A and WS-ECP-Blue-A-acid, (b) ECP-Blue-R and WS-ECP-Blue-R-acid as a function of applied potential.