

Electronic Supplementary Information

Ambipolar Azomethines As Potential Cathodic Color Switching Materials

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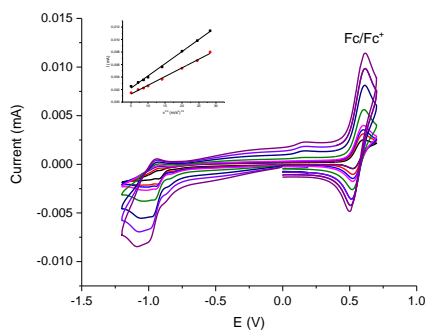


Fig. S1 Cyclic voltammograms of **1** measured with ferrocene at 25 (—), 50 (—), 75 (—), 100 (—), 200 (—), 400 (—), 600 (—) and 800 (—) mV/s in anhydrous and deaerated dichloromethane with 0.1 M TBAPF₆ electrolyte. Inset: current peak of ferrocene (—) and **1** (—) as a function of (scan rate)^{1/2}.

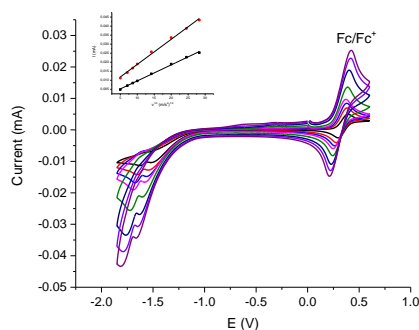


Fig. S2 Cyclic voltammograms of **2** measured with ferrocene at 25 (—), 50 (—), 75 (—), 100 (—), 200 (—), 400 (—), 600 (—) and 800 (—) mV/s in anhydrous and deaerated dichloromethane with 0.1 M TBAPF₆ electrolyte. Inset: current peak of ferrocene (—) and **2** (—) as a function of (scan rate)^{1/2}.

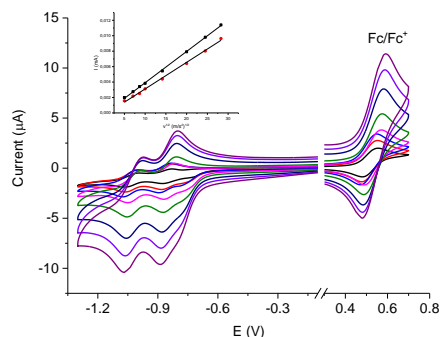


Fig. S3 Cyclic voltammograms of **3** measured with ferrocene as a function of scan rate in anhydrous and deaerated dichloromethane with 0.1 M TBAPF₆ electrolyte 25 (—), 50 (—), 75 (—), 100 (—), 200 (—), 400 (—), 600 (—) and 800 (—) mV/s. Inset: current peak of ferrocene (—) and **3** (—) as a function of (scan rate)^{1/2}.

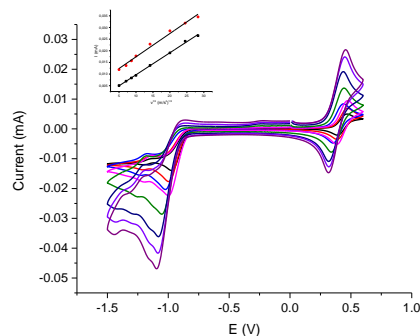


Fig. S4 Cyclic voltammograms of **4** measured with ferrocene at 25 (—), 50 (—), 75 (—), 100 (—), 200 (—), 400 (—), 600 (—) and 800 (—) mV/s in anhydrous and deaerated dichloromethane with 0.1 M TBAPF₆ electrolyte. Inset: current peak of ferrocene (—) and **4** (—) as a function of (scan rate)^{1/2}.

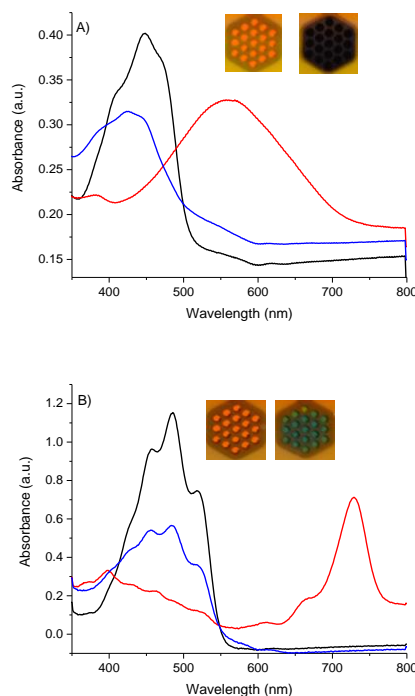


Fig. S5 A) Spectroelectrochemistry of **2** (A) measured in dichloromethane (—) when applying a potential greater than the corresponding E_{ox} (—) followed by 0 V (—). Inset: pictures of the honeycomb electrode in the neutral (left) and oxidized (right) states. B) Spectroelectrochemistry of **3** measured in dichloromethane (—) when applying a potential more negative than the corresponding E_{red} (—) followed by 0 V (—). Inset: pictures of the honeycomb electrode in the neutral (left) and reduced (right) states.

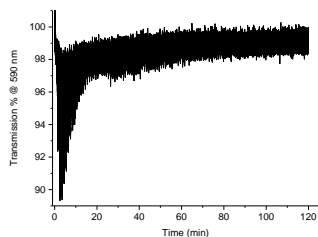


Fig. S6. Variation of transmission % of **1** monitored at 590 nm with applied potential switched between 0 and -1.5 V and held at each potential for 30 sec.

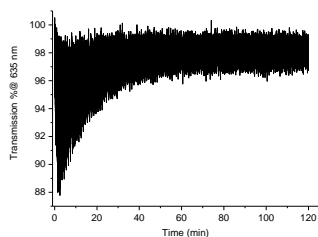


Fig. S7. Variation of transmission % of **2** monitored at 635 nm with applied potential switched between 0 and +1.2 V and held at each potential for 30 sec.

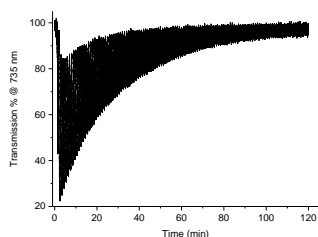


Fig. S8. Variation of transmission % of **3** monitored at 735 nm with applied potential switched between 0 and -1.1 V and held at each potential for 30 sec.

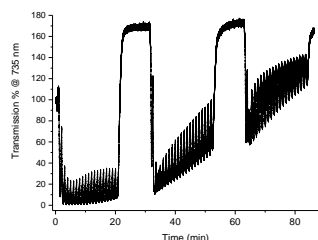


Fig. S9. Variation of transmission % of **3** monitored at 735 nm with applied potential switched between 0 and -1.1 V, held at each potential for 30 sec, and switched for 20 min. Afterwards, a potential of 0 V was applied for 10 min and the cycle repeated.

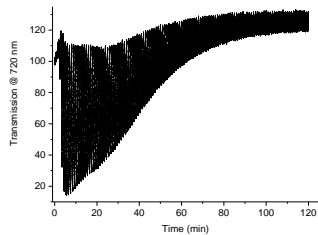


Fig. S10. Variation of transmission % of **4** monitored at 720 nm with applied potential switched between 0 and -1.1 V and held at each potential for 30 sec.

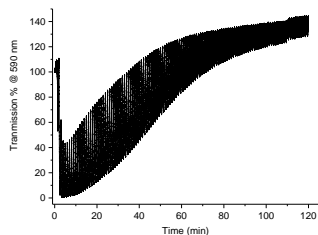


Fig. S11. Variation of transmission % of **4** monitored at 590 nm with applied potential switched between 0 and -1.3 V and held at each potential for 30 sec.