Electronic Supplementary Information (ESI)

Multi-colour electrochromic properties of Fe/Ru-based bimetallo-supramolecular polymers

Chih-Wei Hu,¹ Takashi Sato,^{2,3} Jian Zhang,^{2,3} Satoshi Moriyama^{1,3} and Masayoshi Higuchi^{*,2,3}

¹International Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS), 1-1 Namiki, Tsukuba 305-0044, Japan. ²Electronic Functional Materials Group, Polymer Materials Unit, NIMS, Japan. ³JST-CREST, Japan. E-mail: HIGUCHI.Masayoshi@nims.go.jp

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Fig. S1a shows the increase of the peak currents in the oxidation of the Fe(II) ions as function of the increased scan rate. The linear relationship between the current and the scan rate means the electrochemical reaction on the polymer film obeys a kinetic-control system, not a diffusion-control system (shown in Fig. S1b) nor an adsorption system.



Fig. S1. (a) The relationship between the peak currents in the oxidation of the Fe(II) ions and the scan rate. (b) The relationship between the peak currents in the oxidation of the Fe(II) ions and square root of the scan rate.



Fig. S2. (a) The relationship between the peak currents in the oxidation of the Ru(II) ions and the scan rate. (b) The relationship between the peak currents in the oxidation of the Ru(II) ions and square root of the scan rate.

	Fe ²⁺	Ru ²⁺	L1	molon notio $(\mathbf{E}_{0}^{2+},\mathbf{D}_{1},\mathbf{U}^{2+})$	
	(mmole)	(mmole)	(mmole)	motar ratio (re :Ku)	
FeL1	0.2	0	0.2	1:0	
FeL1Ru-1	0.15	0.05	0.2	0.75:0.25	
FeL1Ru-2	0.1	0.1	0.2	0.5:0.5	
FeL1Ru-3	0.05	0.15	0.2	0.25:0.75	
RuL1	0	0.2	0.2	0:1	

Table S1 The seeding molar ratios of Fe^{2+} to Ru^{2+} and L1 in the metallo-supramolecular polymers.