Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics

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Modular Molecular Photovoltaic System Based on Phospholipid/Alkanethiol Hybrid Bilayers: Photocurrent Generation and Modulation

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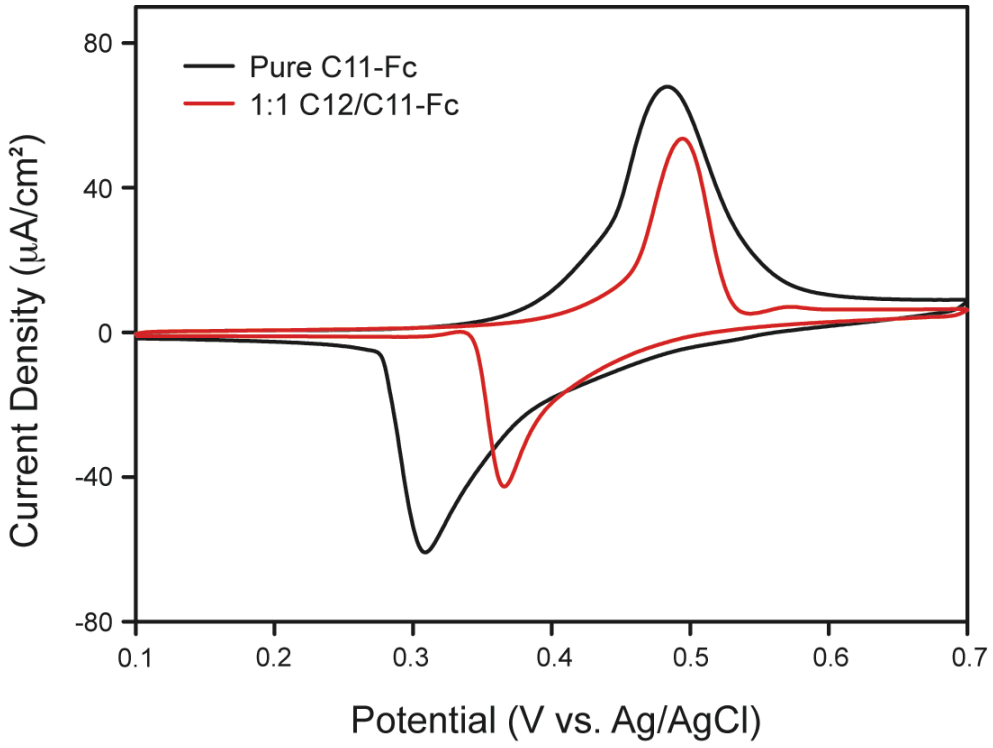
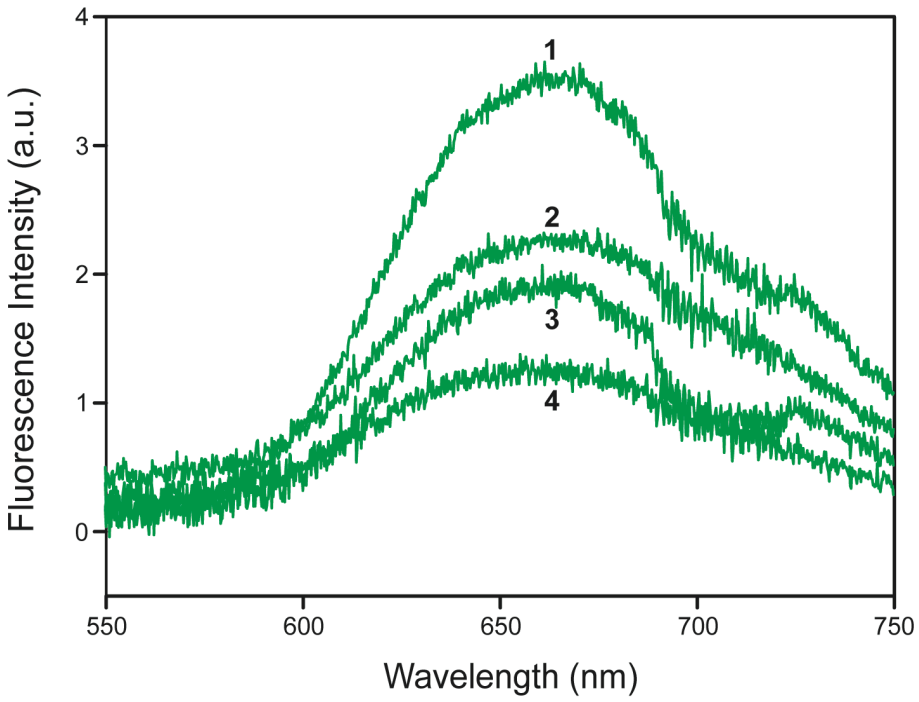


ESI Fig. 1 Cyclic voltammograms of ferrocenyl-terminated SAMs obtained in THF. The SAMs are formed from either pure C11-Fc thiols or a 1:1 (mol) mixture of C12 and C11-Fc thiols on gold. A three-electrode setup with a quasi Ag/AgCl reference electrode and a Pt counter electrode was used. Scan rate: 100 mV/s. Supporting electrolyte: 0.1 M Bu_4NBF_4.



ESI Fig. 2 Fluorescence emission spectra of 2% $Ru(bpy)_3^{2+}$-DOPE assembled in either POPC/Fc-C11SH SAM (spectrum 1 and 3) or POPC/C12SH SAM (spectrum 2 and 4) bilayers. All samples were prepared in HEPES buffer saline (10 mM HEPES, 100 mM NaCl, pH 7.7) and the spectra were taken without deaerating the solutions. Of these, samples used to acquire spectrum 2 and 4 in addition contained 50 mM methyl viologen. Excitation: 470±20 nm.