

Fig. S1. Cyclic voltammogram of the dyad monolayer film deposited onto ITO electrode at 10 mN m $^{-1}$ in acetonitrile solvent. Supporting electrolyte: TBAPF₆; counter electrode: Pt; reference electrode: Ag/Ag $^{+}$; scan rate: 500 mV s $^{-1}$.

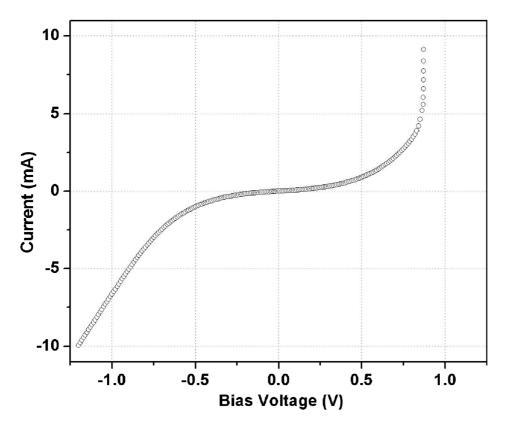


Fig. S2. I-V characteristics of Y-type film of two monolayers deposited at 10 mN m⁻¹ leading to symmetrical I-V behaviour due to centrosymmetry.