

Electronic Supplementary Information

Synthesis and structural, electronic, optical and FET properties of thiophene-pyrrole mixed hexamers end-capped with phenyl and pentafluorophenyl groups

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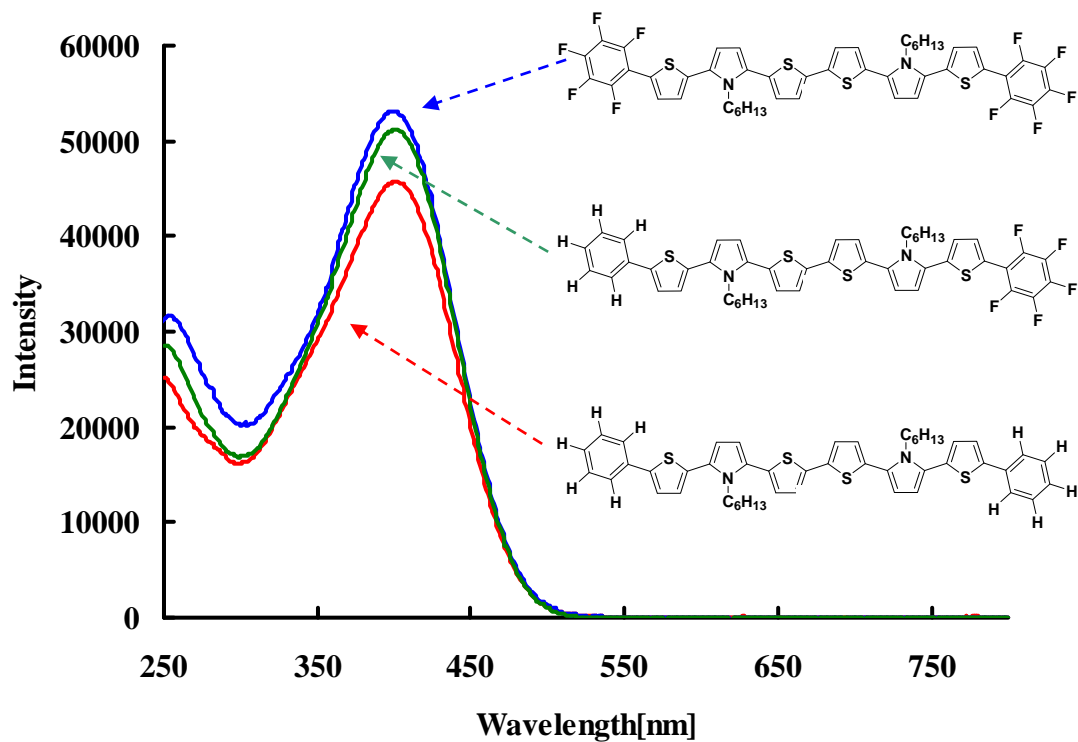


Figure S1. UV-vis spectra of 3a–5a.

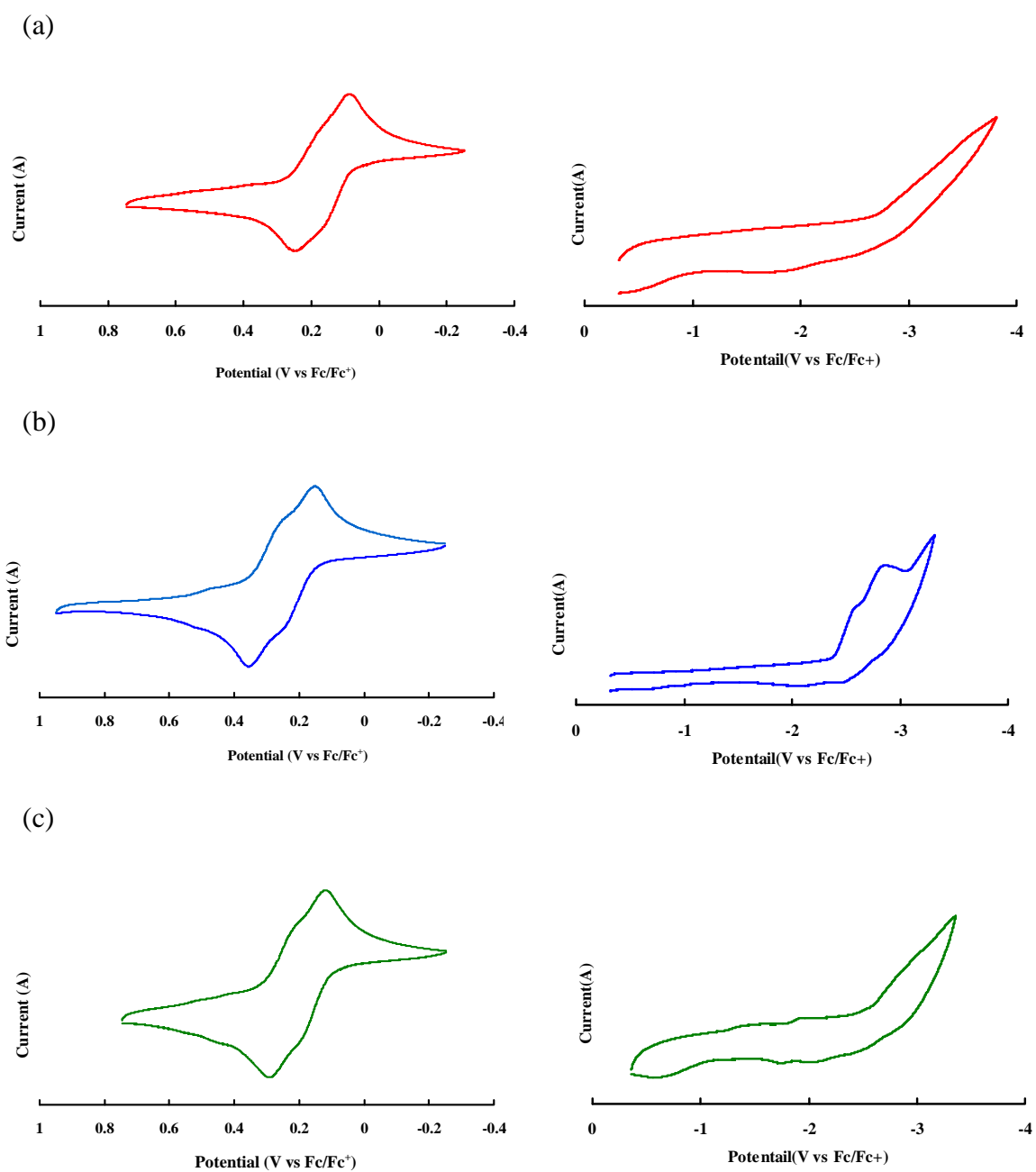


Figure S2. Cyclic Voltammograms of (a) **3a**, (b) **4a** and (c) **5a**. Solvents: CH₂Cl₂ in positive potential regions and THF in negative potential regions; supporting electrolyte: 0.1 M *n*-Bu₄N PF₆.

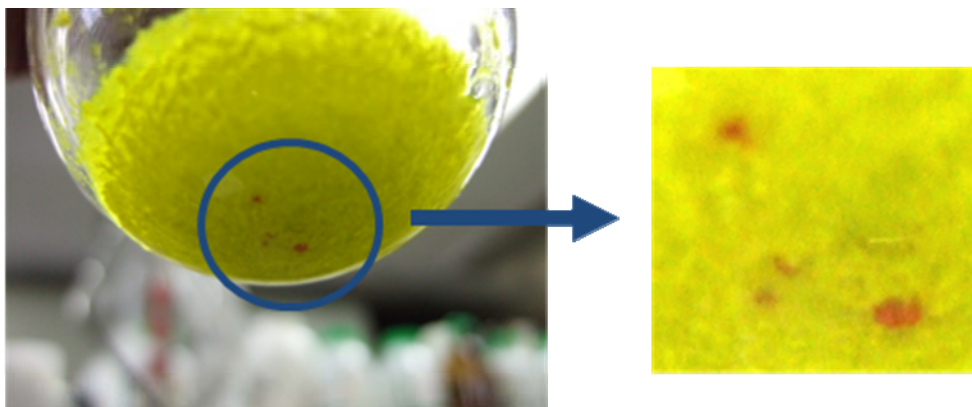


Figure S3. Yellow microcrystals and red crystals of **3a** obtained from recrystallization from toluene.

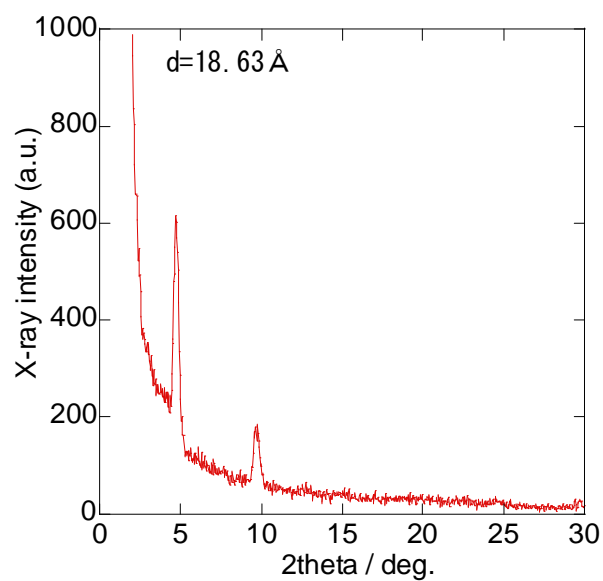


Figure S4. XRD of the thin film of **4a**.

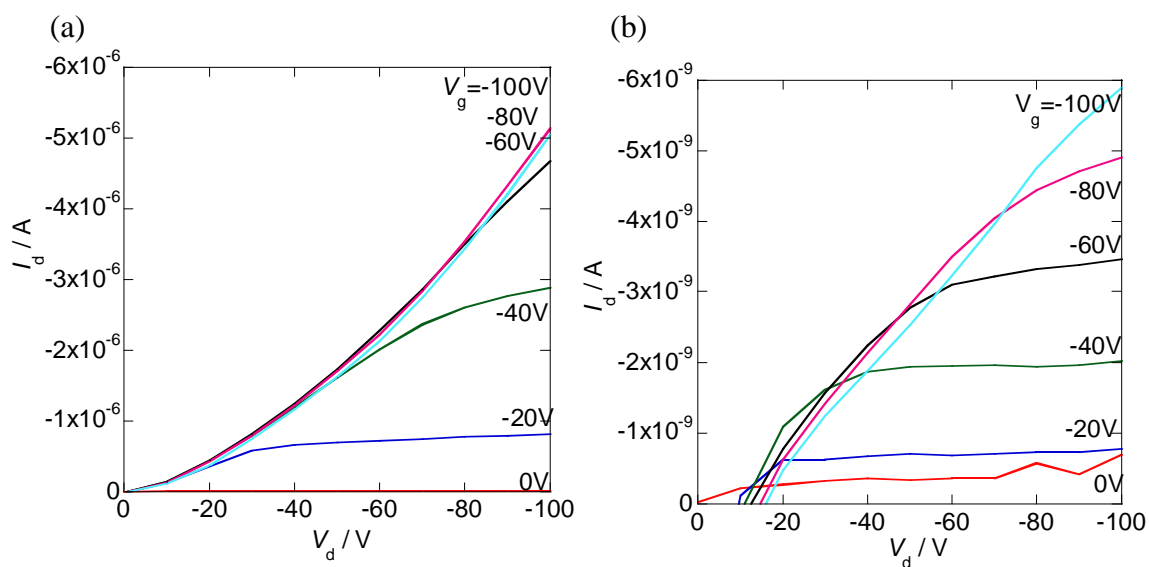


Figure S5. Output characteristics of the (a) **4a**- and (b) **5a**-based thin film FET devices.

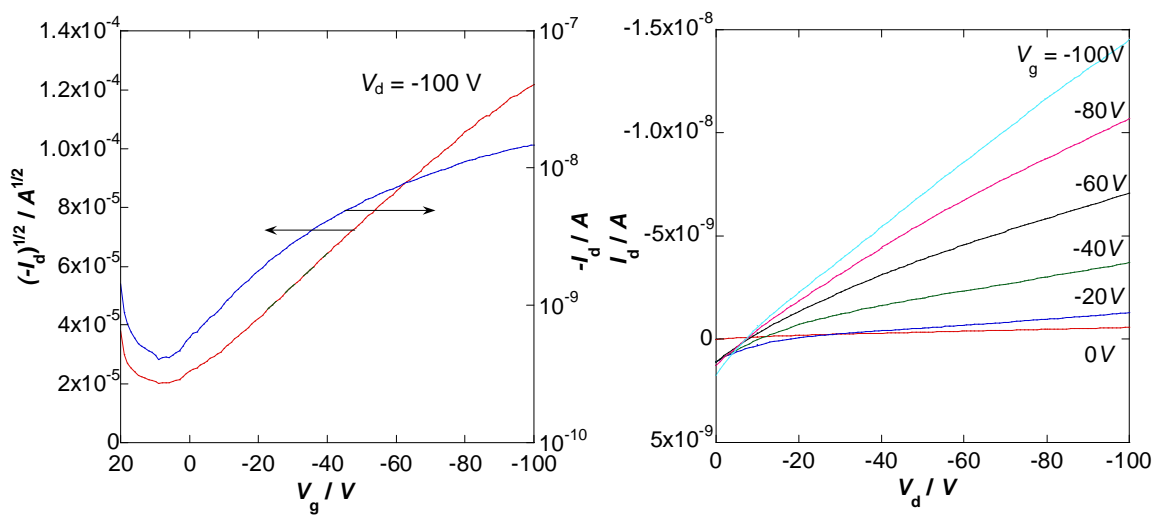


Figure S6. Transfer (left) and output (right) characteristics of the **4a**-based single crystal FET device.

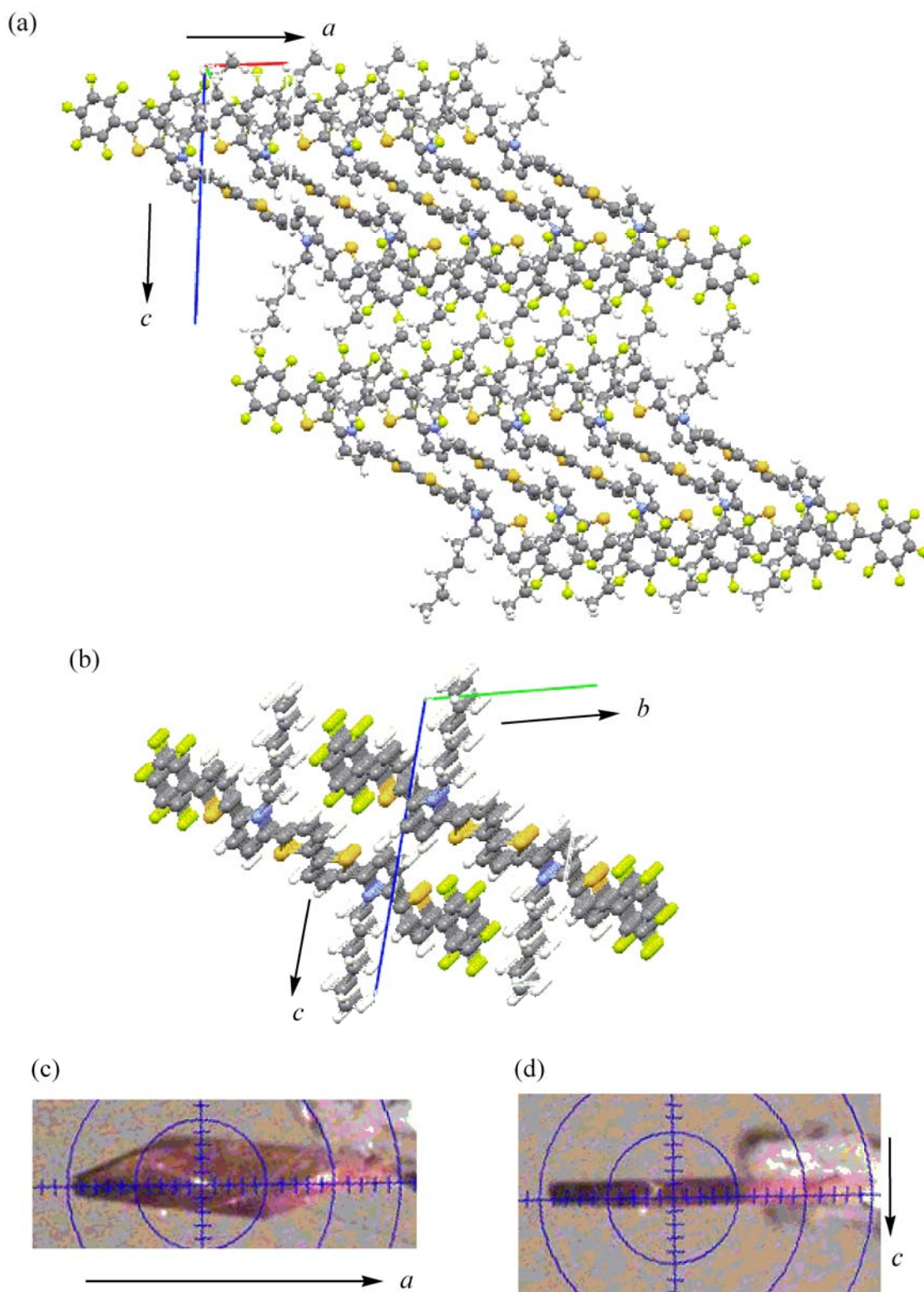


Figure S7. Packing structure in (a) *a*-*c* plane and (b) *b*-*c* plane and (c) top and (d) side view of a single crystal of **5a**