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Supporting Information

Patterning rubrene crystalline thin film for sub-mircometer channel length field-effect transistor arrays

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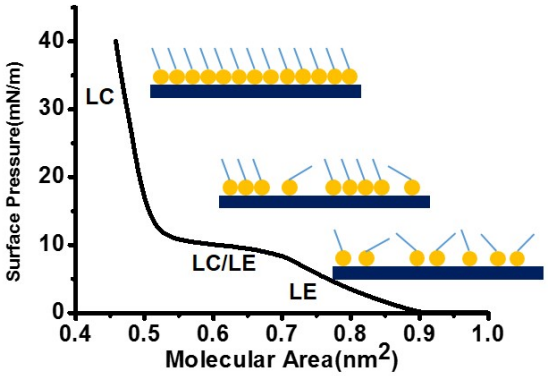

Figure S1. Surface pressure-molecular area (π-A) isotherm of DPPC (~25 °C) and schematic illustration of the corresponding conformations of the DPPC molecules for three characterized phases: liquid-expanded (LE) phase, liquid-condensed (LC) phase and LE/LC co-existing phase, respectively. The molecular packing density and order parameter in LC phase are much higher than in LE phase. Herein the SiO_2 substrates with pre-templates are transferred at high surface pressure of 40 mN/m in order to get homogeneous monolayer with densely packed DPPC molecules on SiO_2 substrates.

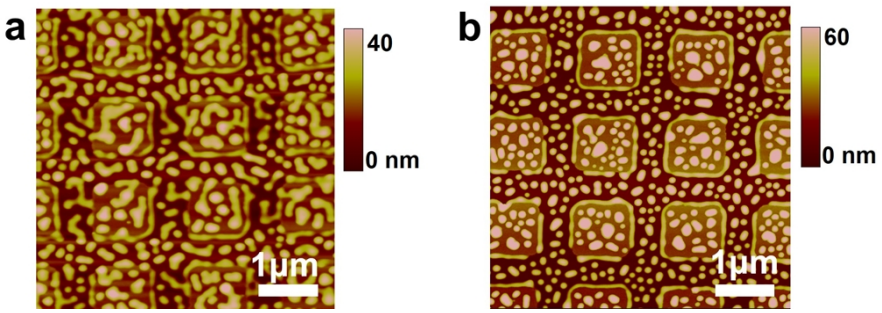

Figure S2. Topographic AFM images of rubrene deposited on Au patterned SiO_2 substrates without DPPC monolayer. (a) as grown, (b) annealing at 80 °C for 8 hours.