

Supporting Information

Chen et al. 10.1073/pnas.1000120107

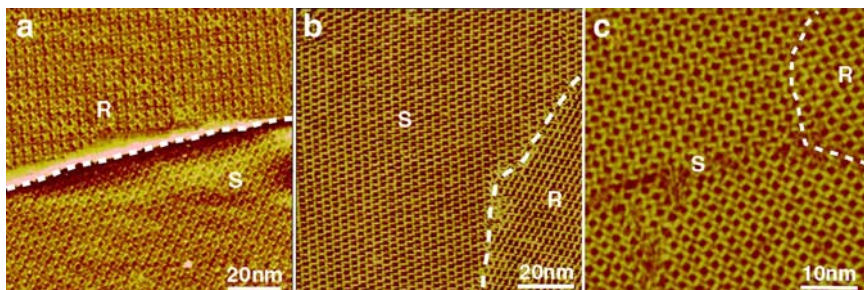


Fig. S1. Large-scale STM images of three chiral patterns of OPV3-CHO; each image contains two homochiral domains with opposite chirality. (a) Windmill structure: $V_{\text{bias}} = 683$ mV; $I_t = 657$ pA. (b) Chiral linear structure: $V_{\text{bias}} = 687$ mV; $I_t = 482$ pA. (c) Dense windmill structure: $V_{\text{bias}} = 634$ mV; $I_t = 650$ pA.

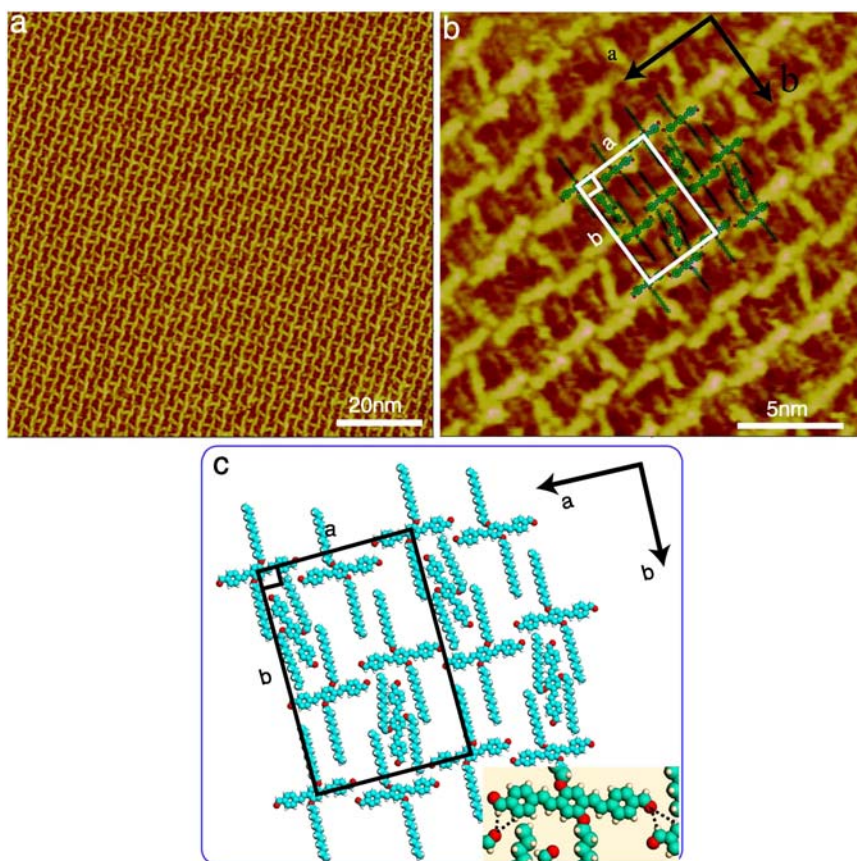


Fig. S2. Self-assembly of achiral linear structure. (a) Large-scale STM image: $V_{\text{bias}} = 650$ mV; $I_t = 722$ pA. (b) High-resolution STM image: $V_{\text{bias}} = 650$ mV; $I_t = 750$ pA. (c) Structural model for adlayer. The OPV backbones shift alternatively left or right along the direction "a" indicated by the arrow. Between these bright lines along the a direction, there are OPV backbones running roughly perpendicular to the a direction to form a network structure. Alkyl chains of OPV3-CHO extend and interdigitate along direction "b." The unit is outlined in the image with the parameters of $a = 4.0 \pm 0.1$ nm, $b = 5.9 \pm 0.1$ nm, $\alpha = 90 \pm 2^\circ$. For the H bondings here, one is 3.1 \AA , 174° ; another is 3.5 \AA , 151° .

