Electronic Supplementary Material (ESI) for Nanoscale.

Supplementary information

Towards 1D Nanolines onto a Monolayered Supramolecular Network adsorbed on a Silicon Surface

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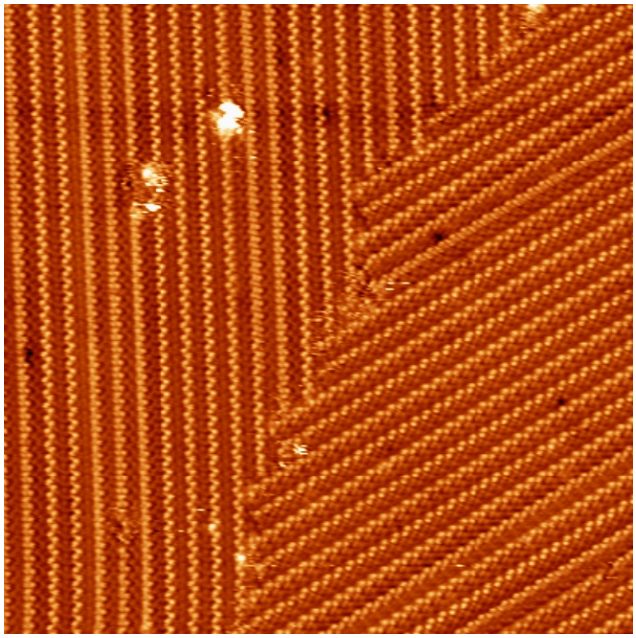

Figure SI-1: Large-scale STM image (80x80 nm^2, V_s = 3.6 V, I_t = 10 pA, 110 K), acquired at 110K, of the CDB/Si(111)-B surface interface around monolayer coverage. We observe perfect supramolecular networks which cover large areas more than 200x200 nm^2. These networks consist of domains oriented at 120° with the same symmetry than the Si(111)-B surface.

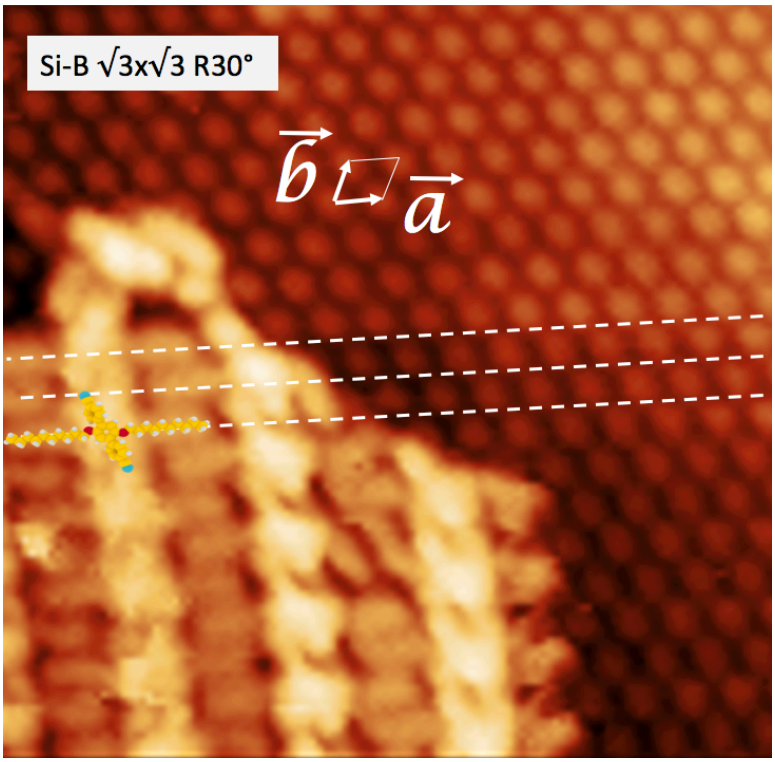

Figure SI-2: On this STM image (24.7x24.7 nm^2, V_s = -2 V, I_t = 30 pA, 110 K), the tip/surface bias voltage has been chosen to observe simultaneously the alkyl chains of the CDB and the silicon adatoms. The two alkyls chains of CDB molecules are systematically located between two Si-adatoms rows.

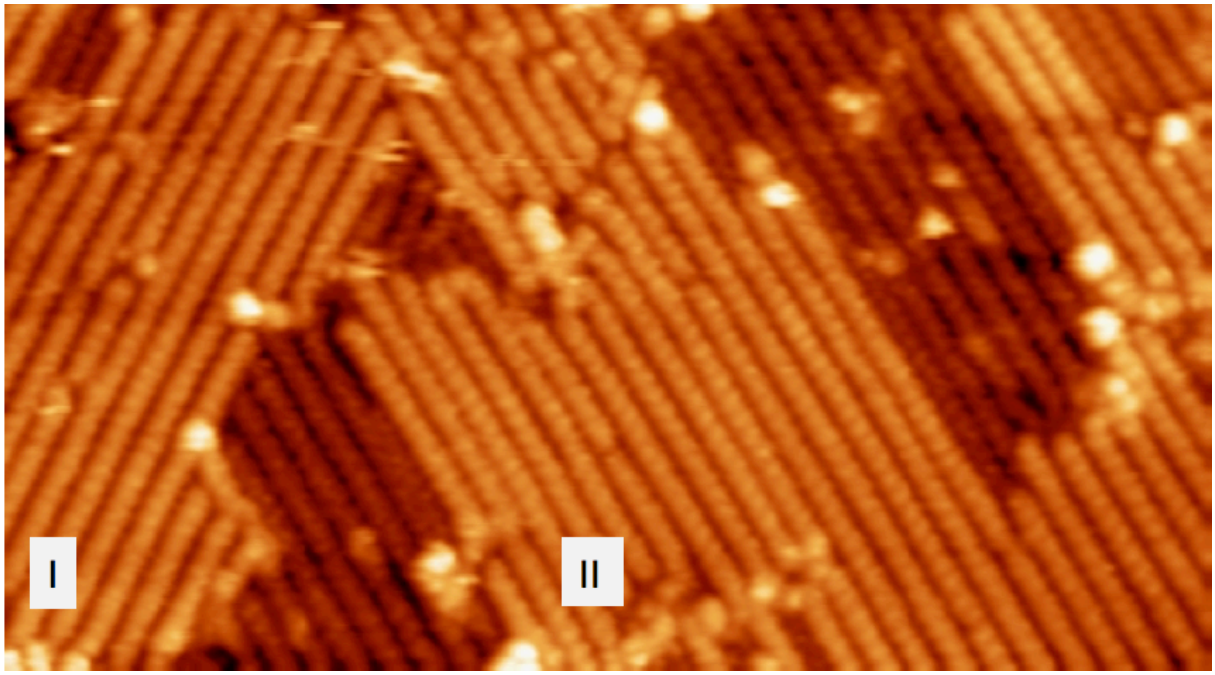

Figure SI-3: Large-scale STM image (80x40 nm^2, *Vs* = -3.7 V, *It* = 10 pA, 110 K) showing two domains (quoted I and II) with different orientations of the bilayered CDB/CDB/Si(111)-B network.

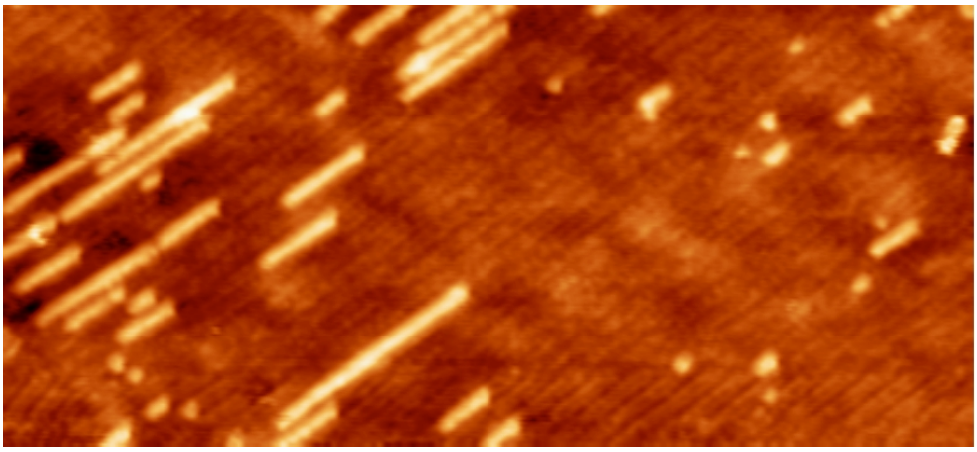

Figure SI-4: Large-scale STM image acquired at room-temperature, showing the beginning of the upper nanolines growth (100x45.5 nm^2, Vs = -1.7 V, It = 10 pA).

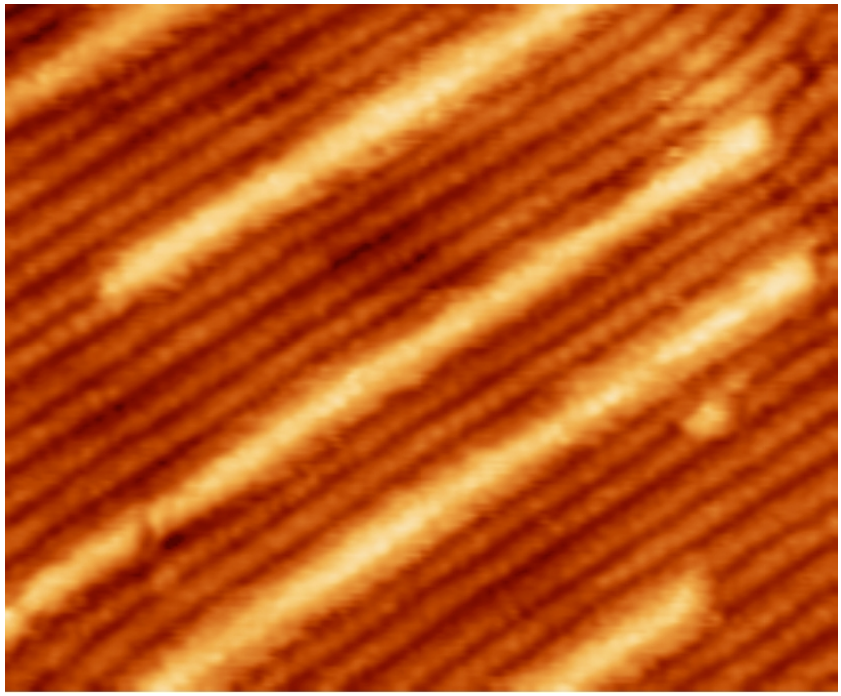

Figure SI-5: Room temperature STM image showing isolated nanolines with a length longer than 20 nm (24.1x19.9 nm^2, Vs = -1.6 V, It = 10 pA).