Supporting Information

Small Molecule Directed Aggregation of a Heme Peptide on Gold: An STM Study

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STM substrate preparation. Epitaxial Au(111) films with well-defined terraces and single atomic steps were prepared on mica by previously described methods.[1] These films were 0.1-0.2 μm thick and had a mean single grain diameter of about 0.3 μm, Figure 1a. Unlike true single-crystal gold, these small crystal grains showed reconstruction line spacing ranging from 6.3 to about 9.0 nm, Figure 1b.

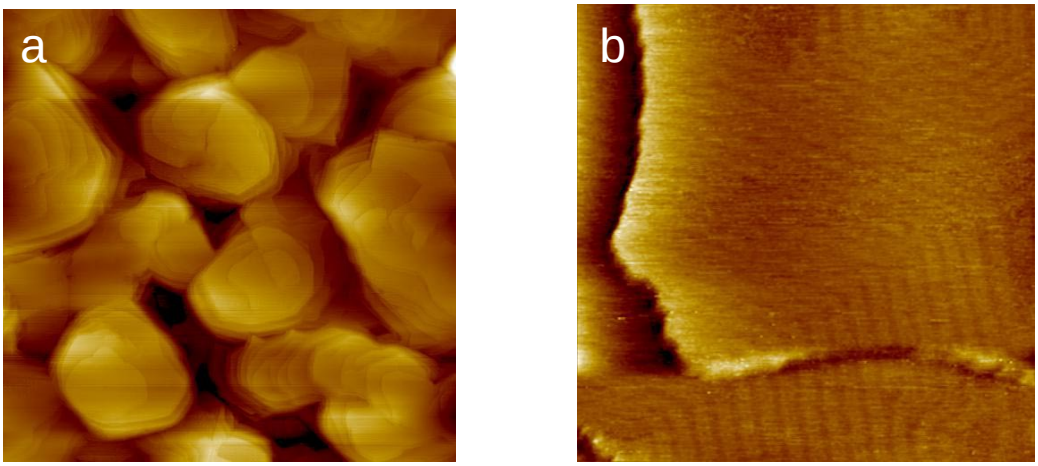

Figure 1. (a) Typical 1000 × 1000 nm^2 constant current image of Au(111) observed at low resolution. The surface has large flat traces with single atomic steps. The image was obtained with a PtIr tip at a sample bias voltage of 0.5 V and a set point of 100 pA; the height scale is 6 nm. The (b) Medium-resolution 150 × 150 nm^2 constant current STM image of Au(111) with visible reconstruction lines. The image was acquired with a PtIr tip at 0.45 V bias, with a setpoint of 0.63 nA; the height scale is 0.31nm . Both images have been flattened.

All substrates were freshly flame annealed and imaged just before exposure to solutions of interest. Only clean and unblemished gold surfaces like the ones depicted in Figure 1 were employed in our studies.

(1) Barlow, D.; Mazur, U.; Hipps, K. W. ***J. Phys. Chem. B.* 2000, *104,*** 5993-6000.