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Supporting Information

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Bicomponent supramolecular packings using flexible phthalocyanine networks**

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Supplementary materials

Experimental details

STM experiments have been performed at liquid nitrogen temperature (T = 77 K) and at liquid helium temperature (T = 4.6 K) on an ultra-high vacuum STM (LT Omicron) with a base pressure of $3.5.10^{-11}$ mbar. The Ag(111) crystal is cleaned by repeated Ar^+ bombardment cycles followed by annealing at 790 K. The filament supporting corannulenes and the phthalocyanine crucible are first pumped by a turbo molecular pump during at least 12 hours. Before evaporation, the crucible and filament are both submitted to high temperature outgassing cycles. The whole evaporation performed with the substrate held at RT takes 20 minutes. The vacuum never exceeds $1.5.10^{-9}$ mbar in the preparation chamber. Tips of tungsten wires 0.2 mm in diameter were prepared by electrochemical etching in a 1M-NaOH solution and cleaned in the UHV preparation chamber using direct current heating.

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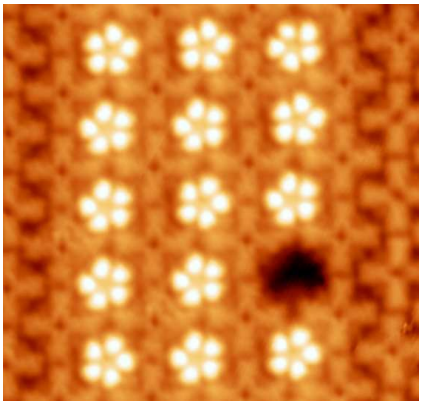
Keywords

H bonding, Phthalocyanines, Self-assembly, STM, Supramolecular chemistry.



Abstract

Using the weakly bonded phases of 2,3,9,10,16,17,23,24-octachloro zinc phthalocyanine networks as controlled structures for insertion of a second molecule, stable lines and chessboard structures have been obtained and observed by Low Temperature STM. This results from an original insertion mechanism. By vertical manipulations at 4.6 K, artificial modification of the network can be achieved by removing corannulene molecules from the bicomponent packing.