

Publication

A scanning tunneling microscopy investigation of 4,4''-dimethylbianthrone molecules adsorbed on Cu(111)

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Well-ordered monolayers of 4,4'-dimethylbianthrone molecules have been grown on a Cu(III) surface in ultra-high vacuum. Scanning tunneling microscopy images show the formation of three rotational domains with a molecular arrangement nearly devoid of structural defects. For coverages below a densely packed monolayer, ordered molecular islands form on terrace sites away from substrate step edges. Time-lapsed sequences of scanning tunneling microscopy images reveal the coexistence of molecules in a mobile state together with a fixed two-dimensional molecular crystal phase. (C) 1997 Elsevier Science B.V.

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