

NANO | MICRO

small

Binary molecular networks

The frontispiece shows a scanning tunneling microscopy image of a monolayer of copper hexadecafluorophthalocyanine ($F_{16}CuPc$) and p-sexiphenyl (6P) self-assembling on highly oriented pyrolytic graphite. The four-lobe feature represents a $F_{16}CuPc$ molecule and the long rodlike feature represents a single 6P molecule. At 3:1 6P/ $F_{16}CuPc$, the binary molecular network is composed of oblique $F_{16}CuPc$ molecular dot arrays interconnected by 6P triplets, whose corresponding unit cell is noted in the lower right corner of the figure. Various highly ordered nanostructures are obtained by varying the 6P/ $F_{16}CuPc$ molecular ratio or replacing 6P with other molecules.

1/2010

 WILEY-VCH

Tunable Two-Dimensional Binary Molecular Networks

W. Chen, A. T. S. Wee, et al.