## **Supporting Information**

Intercorrelation of Electronic, Structural, and Morphological Properties in Nanorods of 2,3,9,10-Tetrafluoropentacene

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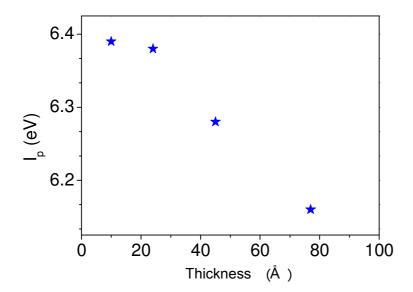
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This Supporting Information contains:

- 1) Ionization potential versus thickness.
- 2) AFM Images and evaluation for three different assemblies (nominal thickness: 18, 40 and 119  $\rm \mathring{A}$ ).

1)

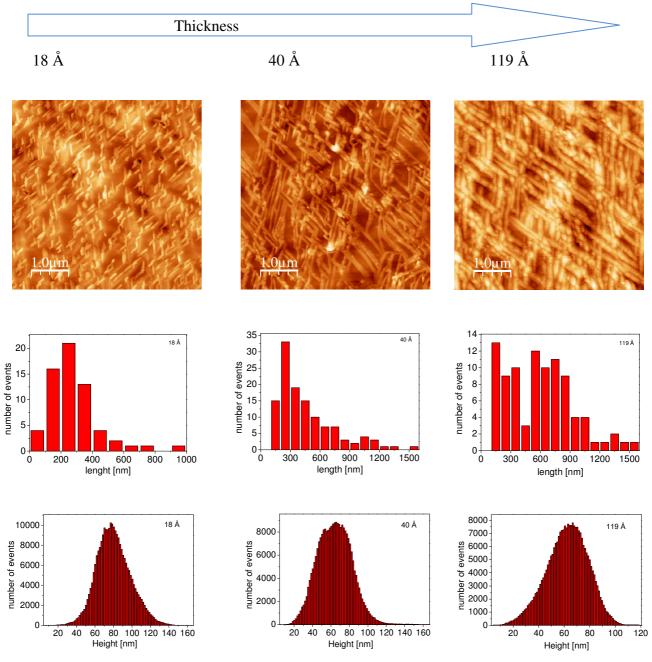
Figure S1. Ionization potential versus thickness.



The work function is 5.1 eV for the clean substrate and it decreases by 0.7 eV upon F4PEN deposition. The secondary electron cut-off was measured with a bias potential of -7V. The sample work function was determined as the energy difference between the photon energy and the width of the whole spectra (secondary electron cut-off to the Fermi edge) taking the applied voltage into account.

2)

Figure S2. AFM analysis.



With increasing the nominal thickness of the assembly, as indicated in the upper panel, in average the nanorods become longer, while the height distribution does not change relevantly, in agreement with the fact that the barriers to surface diffusion on a terrace are anisotropic, as discussed in the text.