Hierarchical growth of curved organic nanowires upon evaporation induced self-assembly

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Experimental information:

The samples were prepared by a similar procedure as reported before.¹ Briefly, the compound **1** was dissolved in octanoic acid to prepare a solution of ~ 1.0×10^{-8} M. Before being deposited on a substrate, the solution was heated at 80 °C for about 15 min to better dissolve the compound. A drop of 20 µL of this solution was then applied onto a substrate and let to dry in a covered glass petri dish on a hotplate at 60 – 70 °C for overnight. The AFM measurements were carried out by using a Multimode SPM (DI) with a Nanoscope IV controller and an E scanner. All AFM images were obtained in tapping mode in ambient air with silicon cantilevers (spring constant of 21-60 N/m, resonance frequency of ca. 300 kHz, Olympus, Japan).

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Figure S1: (A) Histogram of outer diameter distribution of the disc-like objects. (B) Histograms corresponding to 3-layer concentric circle, 3 to 4-layer spiral and 4-layer concentric circle, respectively.



Figure S2: AFM images of assemblies of **1** on freshly-cleaved HOPG. The disc-like structures were often observed at step edges of graphite as indicated by dashed blue arrows.



Figure S3: Representative AFM images of assemblies of 1 on (A) gold, (B) mica and (C) SiO₂, respectively.



Figure S4: AFM images of self-assemblies of **1** in thick films on HOPG surface. (A) A height image and its corresponding phase image (B) demonstrating the coexistence of disc-like features and bundled-wire structures, respectively. (C) A height image and (D) its corresponding phase image showing pure wire-type phase observed in the thick films of **1** on HOPG, respectively.

1. J. Puigmartí-Luis, A. Minoia, S. Lei, V. Geskin, B. Li, R. Lazzaroni, S. De Feyter, D.B. Amabilino, *Chem. Sci.*, 2011, **2**, 1945.