Supporting Information

Superstructures and Superhydrophobic Property in Hierarchical Organized Architectures of Fullerenes Bearing Long Alkyl Tails

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Figure S1. SEM images (a, b) of assemblies of 1 prepared from 1,4-dioxane at 20 ºC. Inset of (a) is a photograph of a water droplet on the surface (static water contact angle of 152º). Powder XRD pattern (c) of the self-organized particles of 1 at 20 ºC. The corresponding d-spacing value of the lamellae is 4.85 nm. The original results obtained from same molecule (I) in the same condition have been previously published in Adv. Mater., 2008, 20, 443.
Figure S2. SEM images of assemblies of 1 prepared from (a, b) \( n\text{-C}_{10}\text{H}_{22} \) at 20 °C (as aggregates of thinner belts) and (c, d) \( n\text{-C}_{12}\text{H}_{26} \) at 5 °C (as nanoflakes-wrapped microparticles).
Figure S3. FT-IR spectra of the assembled objects of 2 (a, b) and 3 (c, d) displaying (a, c) asymmetric and symmetric methylene stretching bands and (b, d) methylene scissoring vibration bands at 20 °C. These results suggest that the crystalline states of alkyl chains in the assemblies of 2 and the non-crystalline states of alkyl chains in the assemblies of 3, respectively.
Figure S4. SEM images of assemblies of 4 prepared from (a) benzene at 20 °C, (b) toluene at 20 °C, (c) 1,4-dioxane at 20 °C, (d) a 2 : 1 1,4-dioxane/THF mixture at –14 °C, and (e) a 2 : 1 THF/methanol mixture at 20 °C, respectively.
Figure S5. Powder XRD pattern of the assembled particles of 4 at 20 ºC. The corresponding $d$-spacing value of the lamellae is 4.2 nm.