Supporting Information

Controlled synthesis of organic single-crystalline nanowires via the synergy approach of the bottom-up/top-down processes

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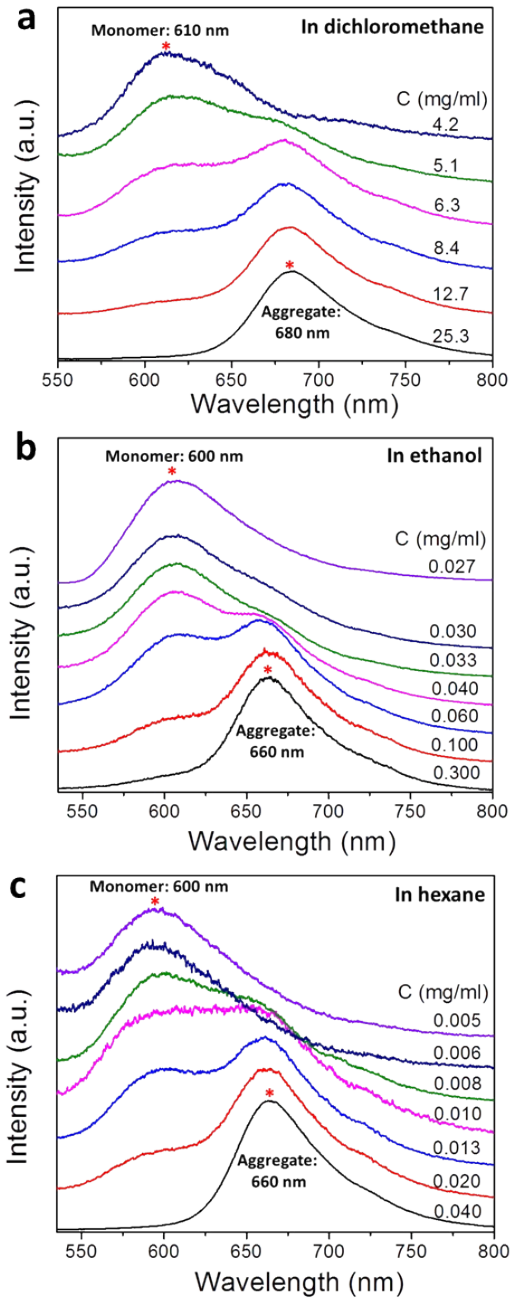

Figure S1. (a) The PL spectra of DMHP with different concentration in dichloromethane (DCM). The monomers have the emission band about 610 nm and the aggragates have the emission band about 680 nm. All of the emission band is from the monomer state with the concentration of 4.2 mg/ml, which is regarded as the solubility in DCM. (b) The PL spectra of DMHP with different concentration in enthanol. The solubility in ethanol is 0.027 mg/ml. (c) The PL spectra of DMHP with different concentration in hexane. The solubility in hexane is 0.006 mg/ml.

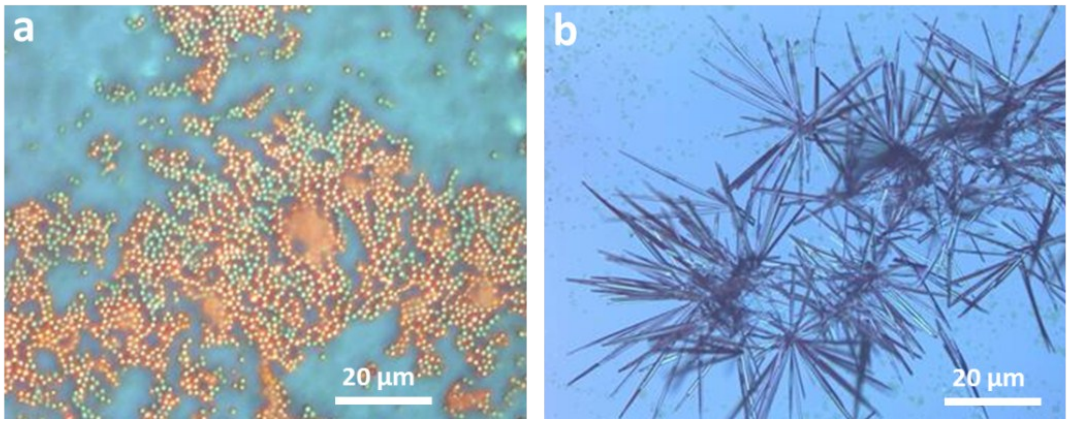

Figure S2. (a) The bright optical image of these as-prepred organic micro/nanostructures at samping time of 0 mintures. The scale bar is 20 μm. (b) The bright optical image of these as-prepred organic micro/nanostructures at samping time of 10 mintures. The scale bar is 20 μm.

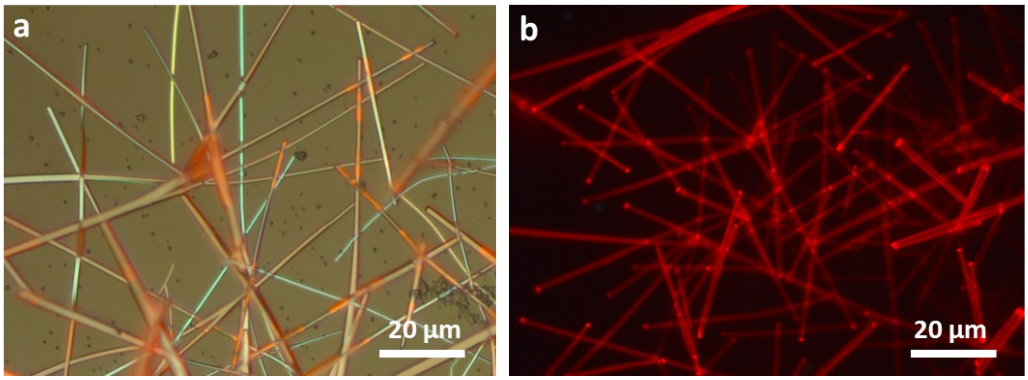

Figure S3. (a) The bright optical image of these as-prepred organic microrods at samping time of 30 mintures. The scale bar is 20 μm. (b) The fluorescence microscopy image of the as-prepared organic microrods (at sampling time of 30 minutes) excited with UV band (330-380 nm) from a mercury lamp. The scale bar is 20 μm.

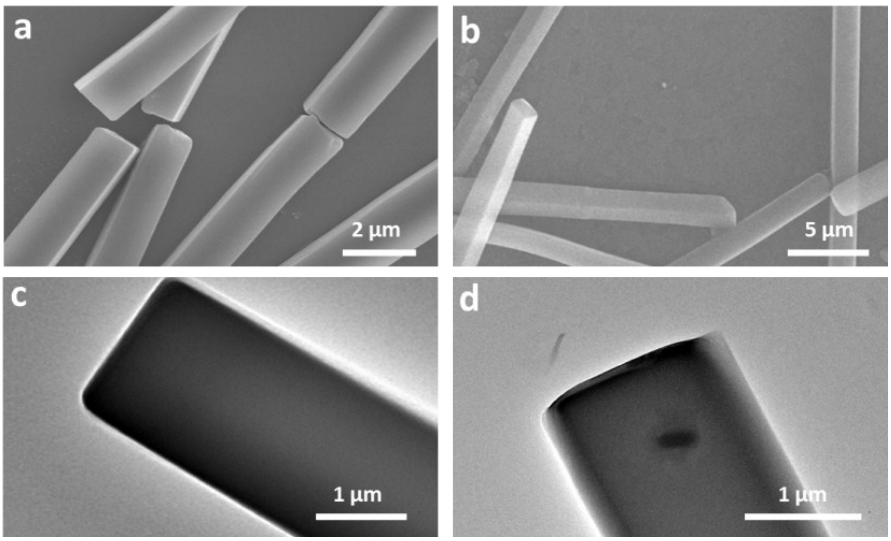

Figure S4. (a-b) SEM images and (c-d) TEM images of DMHP organic micro-rods with the flat cross-sectional plane. The scale bars are (a) 2 µm, (b) 5 µm and (c-d) 1 µm, respectively.

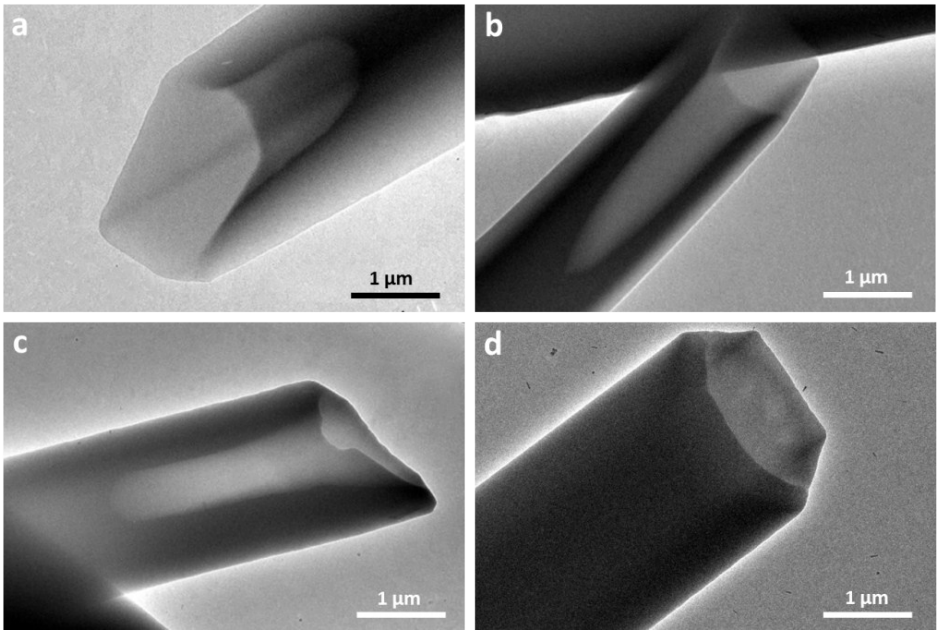

Figure S5. TEM images of the DMHP organic micro-rods with hollow structure in the edge. The scale bars are 1 µm.

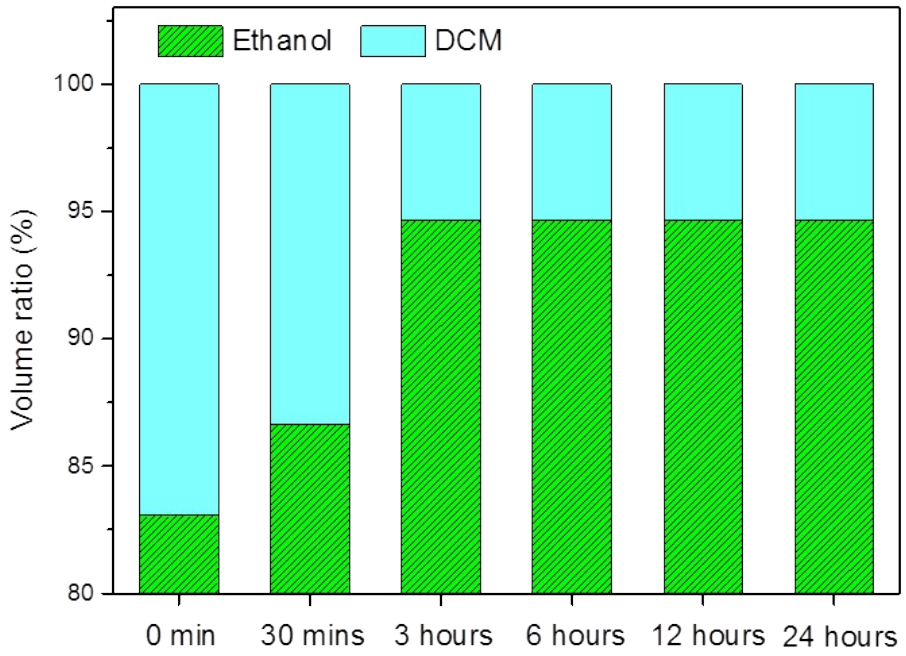

Figure S6. The volume ratios of ethanol (DCM) at 0, 0.5, 3, 6, 12, and 24 hours (the mixed solvent system is exposed to the air). And the volume ratio is confirmed by the gas chromatography.

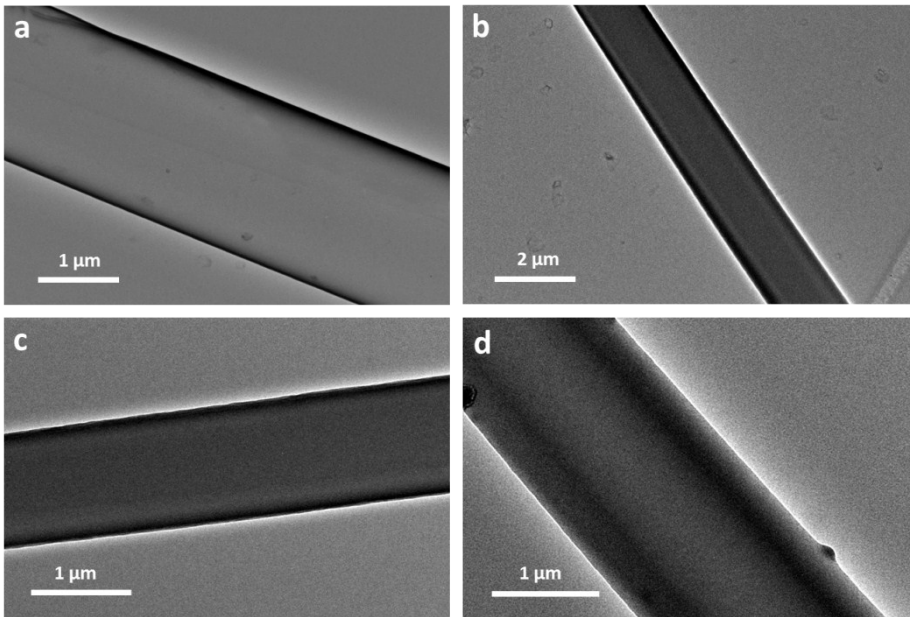

Figure S7. TEM image of the DMHP organic micro-tubes. The scale bars of (a, c, d) and (b) are 1 and 2 µm, respectively.

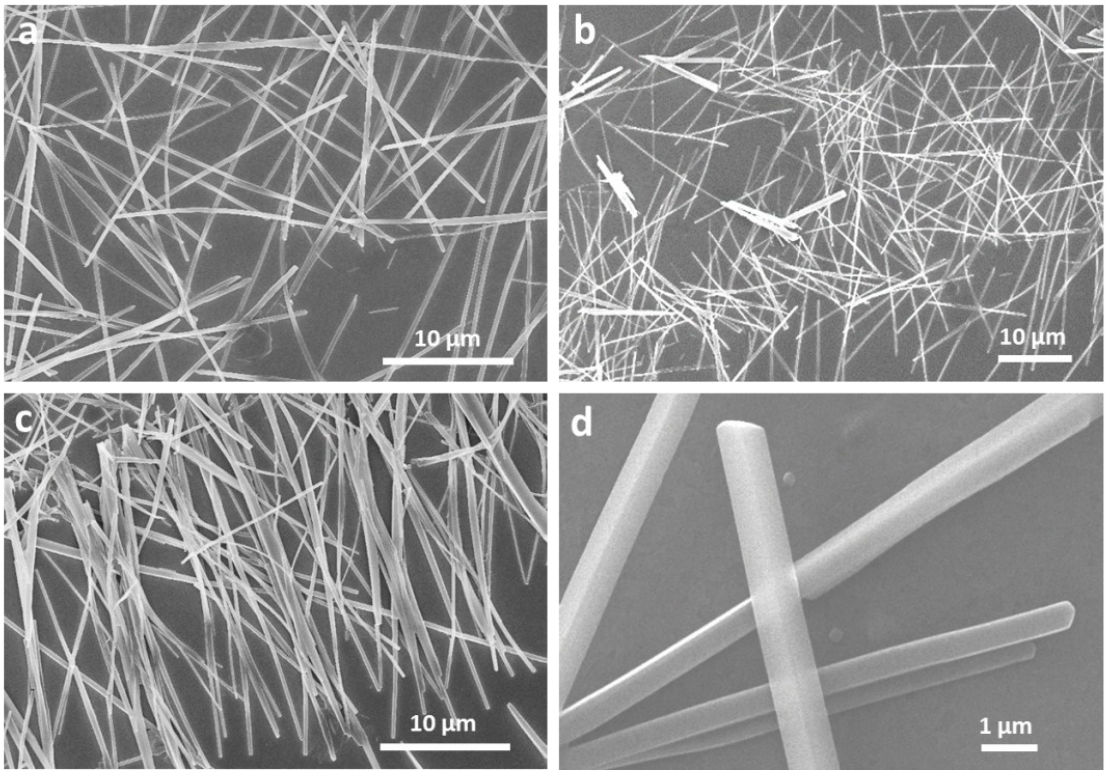

Figure S8. SEM images of the DMHP organic micro-rods according to orthogonal solvents of DCM and *n*-hexane with different sampling time: (a) 30 min, (b) 6 hours, (c) and (d) 12 hours. The sacle bars are (a-c) 10 and (d) 1 μm, respectively.

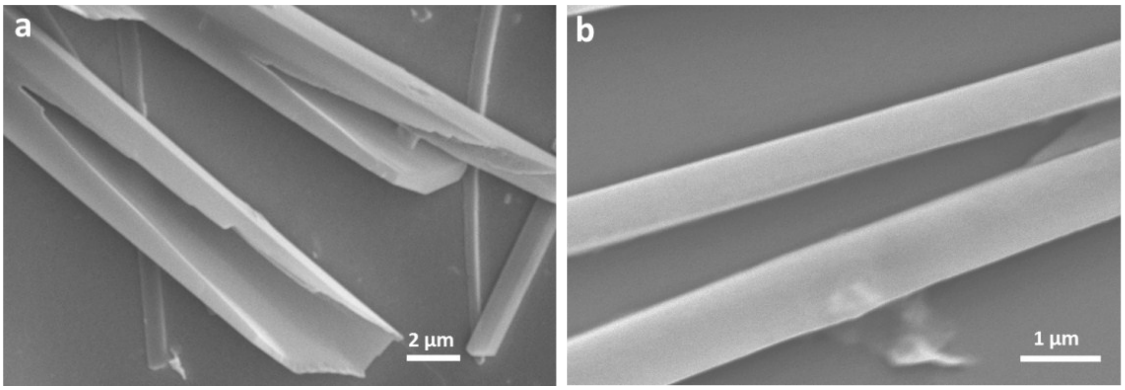

Figure S9. SEM images of these cracked DMHP organic micro-tubes. The sacle bars are (a) 2 and (b) 1 μm, respectively.

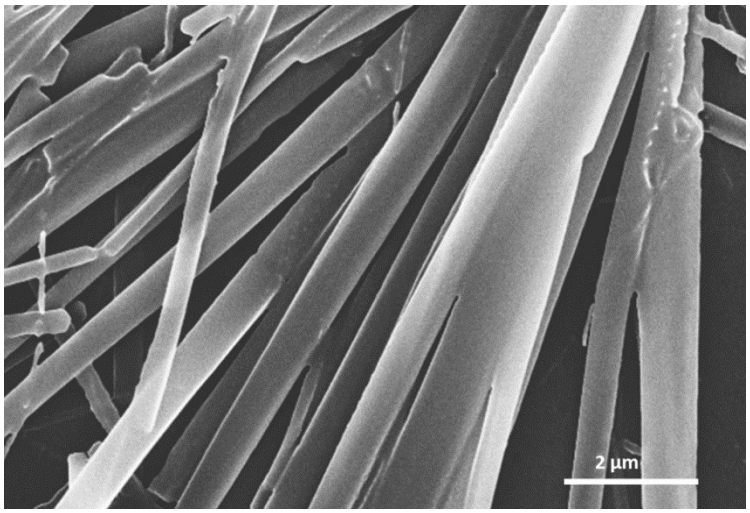

Figure S10. SEM image of the bouquet-like bundles of regular and inchoate DMHP organic nanowires with scale bar of 2 μm.

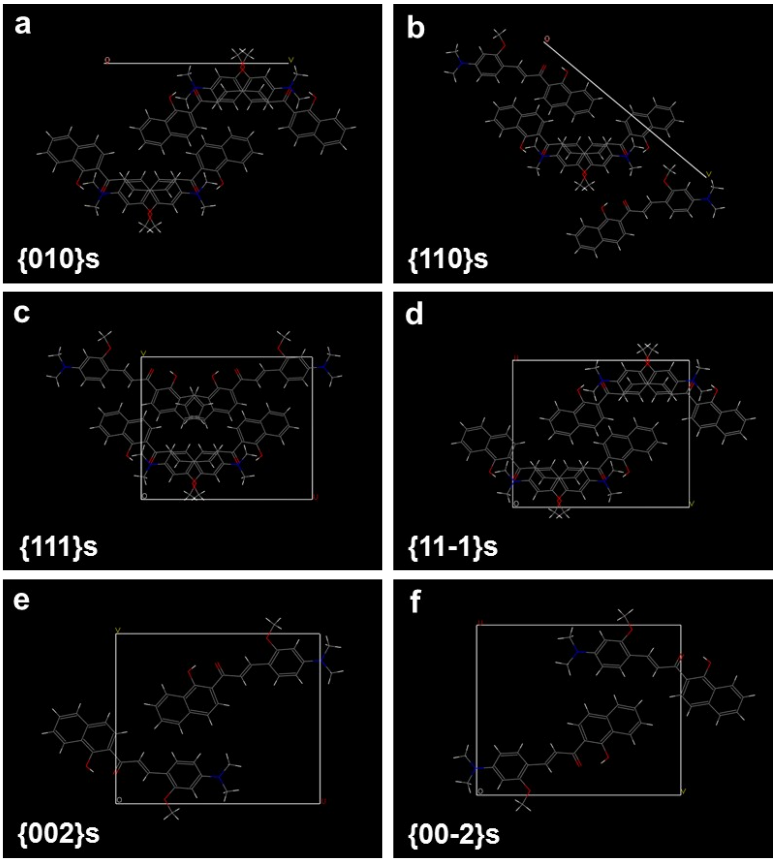

Figure S11. (a-f) The molecular packing form within the {010}s, {110}s, {111}s, {11-1}s, {002}s, and {00-2}s crystal planes.

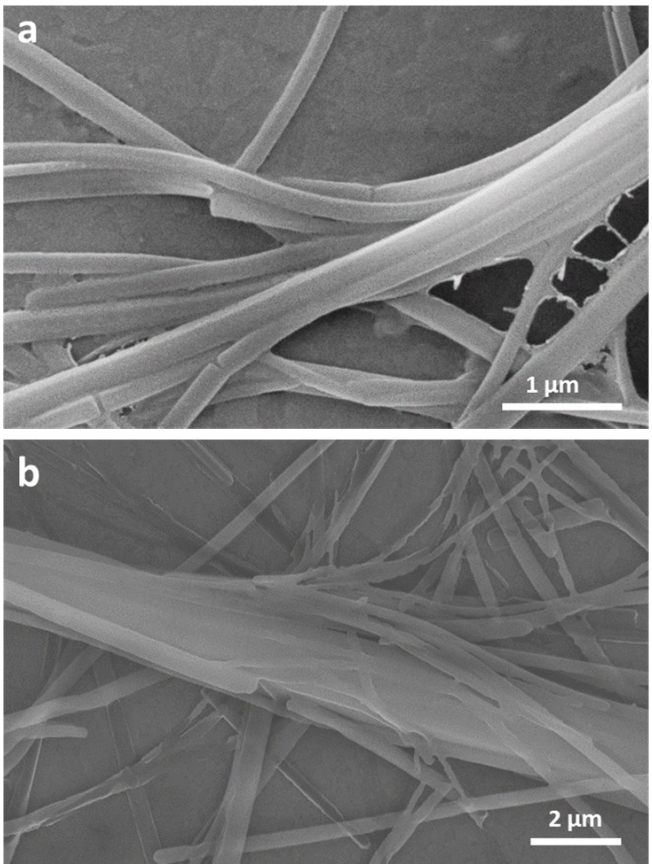

Figure S12. SEM images of the DMHP organic bouquet-like bundle with the scale bars of (a) 1 and (b) 2 µm, respectively.

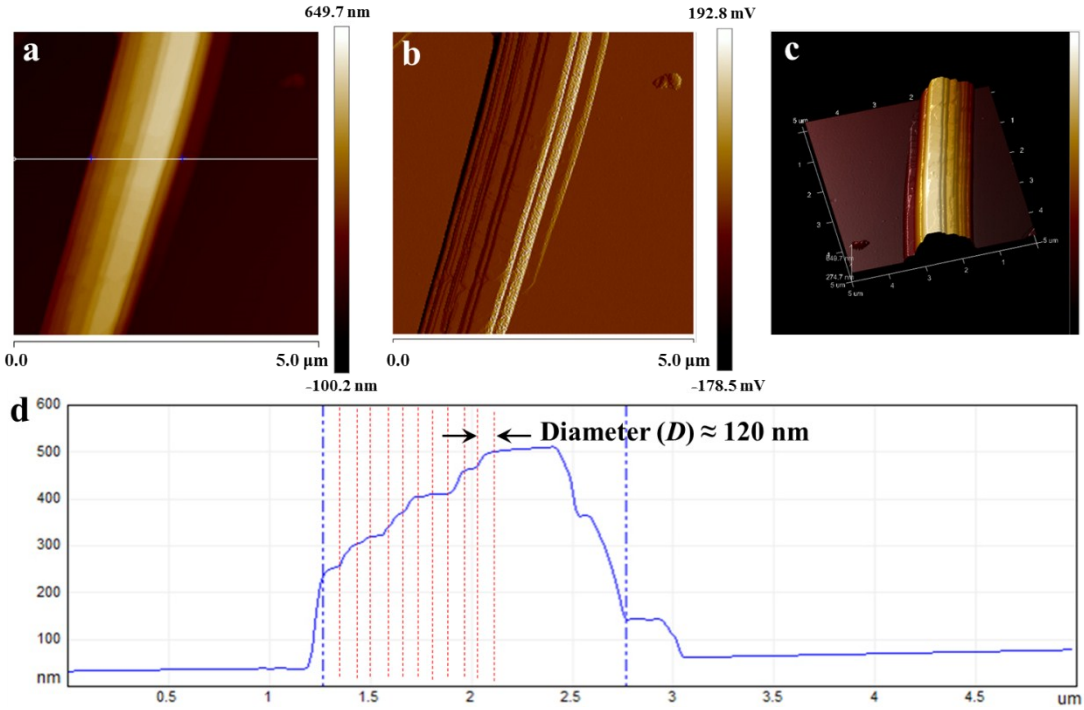

Figure S13. (a-c) AFM images of the typical DMHP organic bouquet-like bundle. (d) The hegiht profile corresponding to the white line in Figure S13a.

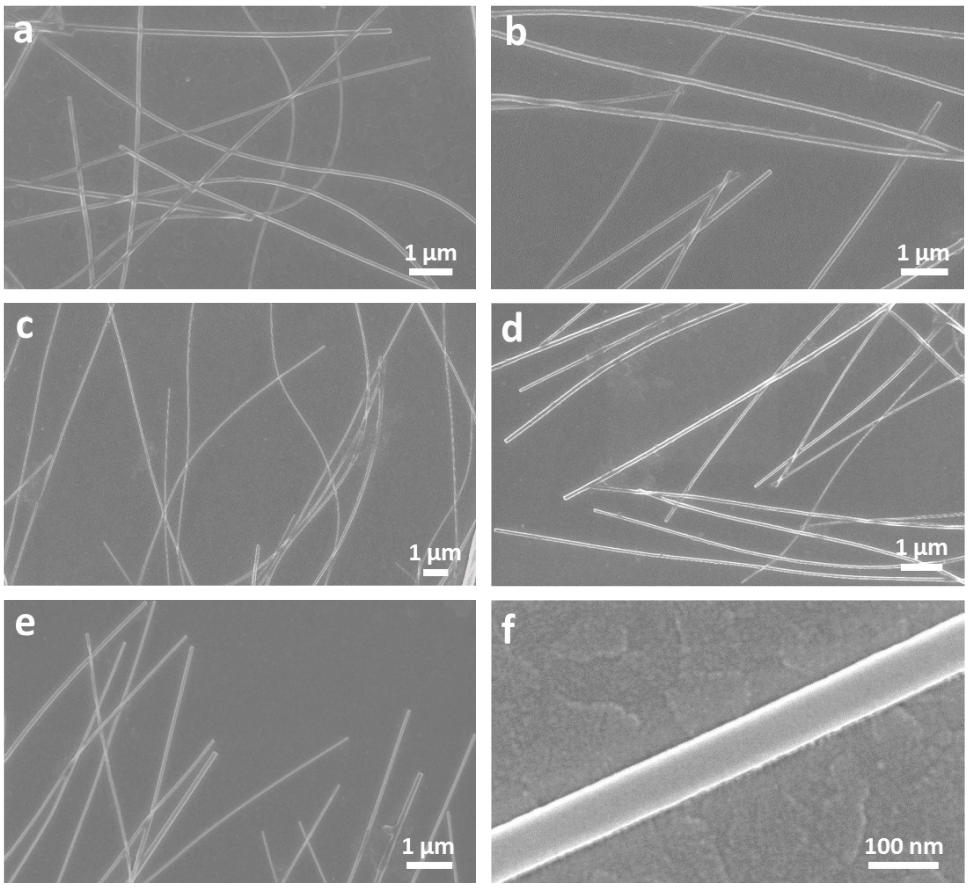

Figure S14. SEM images of the DMHP organic nanowires. The scale bars are (a-e) 1 μm and (f) 100 nm, respectively.

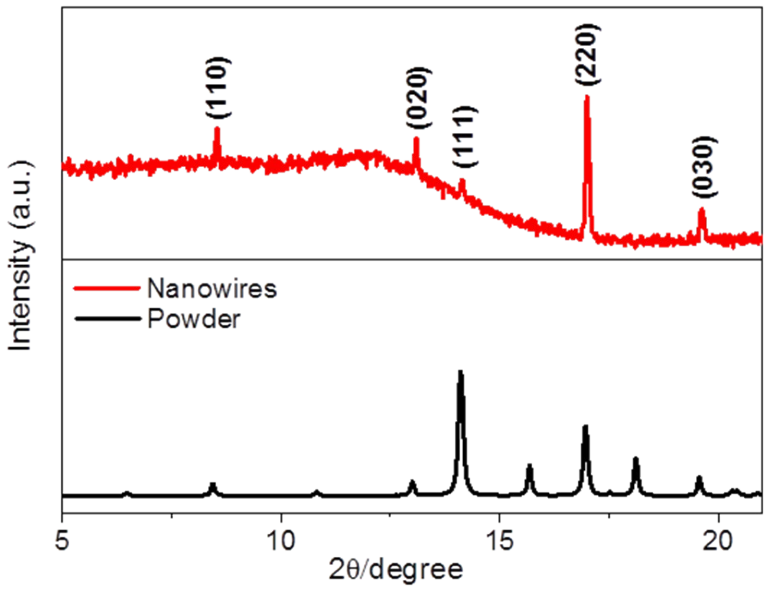

Figure S15. X-ray diffraction patterns of these as-prepared organic nanowires (red line, top panel) and simulated powder pattern using Mercury software (black line, bottom panel)

Table S1. Crystal data and structure refinement for DMHP (CCDC No. 1538057)

Name	DMHP
Empirical formula	$C_{22}H_{21}NO_3$
Formula weight	347.15
Temperature	173.1500 K
Wavelength	0.71073 Å
Crystal system	orthorhombic
Space Group	$Pca2_1$
Cell Lengths (Å)	***a*** 16.350(3) ***b*** 13.605(3) ***c*** 7.8099(16)
Cell Volume (Å^3)	1737.25
Z: 4 Z': 0	***Z***: 4 ***Z'***: 0
R-Factor (%)	4.43