

Electronic Supplemental Information for:

**Hybrid Hexagonal Nanorods of Metal Nitride Clusterfullerene and
Porphyrin Using a Supramolecular Approach**

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S1. Size distribution of samples 1, 2, 5, 6

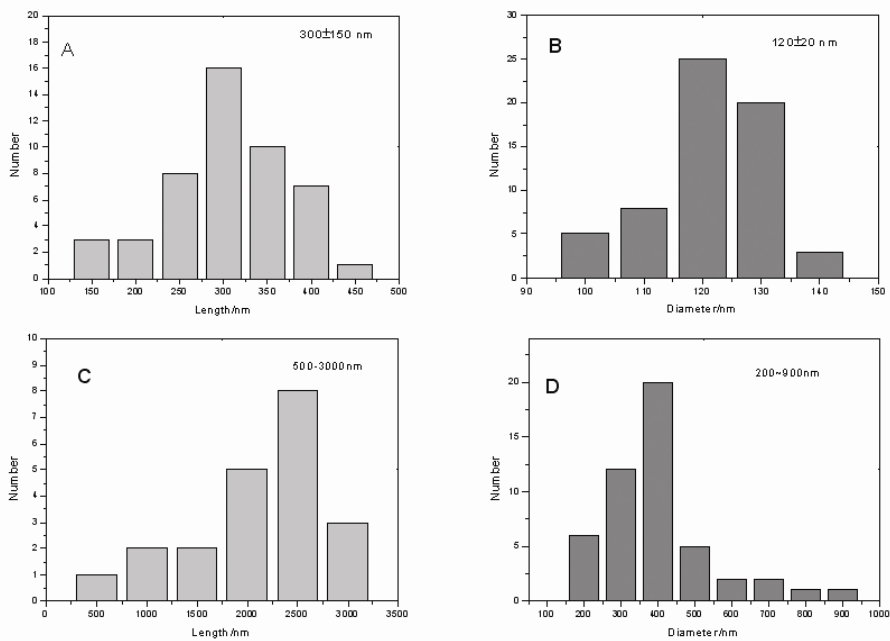


Figure S1. Length and diameter distributions of Sc₃N@C₈₀-ZnTPyP nanorods (see Table 1). Sample 2: (A) length; (B) diameter; Sample 1: (C) length; (D) diameter.

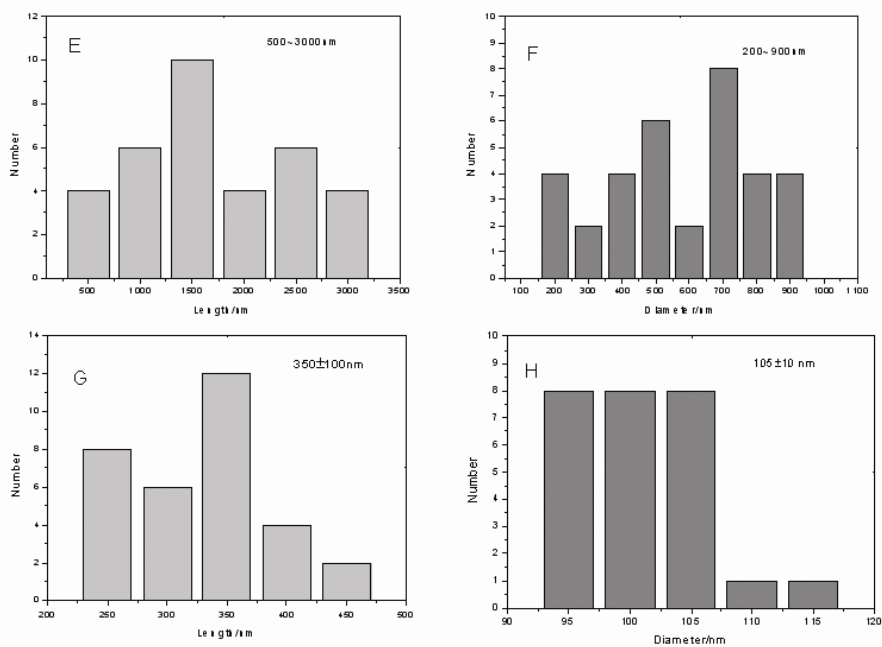


Figure S2. Length and diameter distributions of ZnTPyP nanotubes (see Table 1). Sample 6: (E) length; (F) diameter; Sample 5: (G) length; (H) diameter.

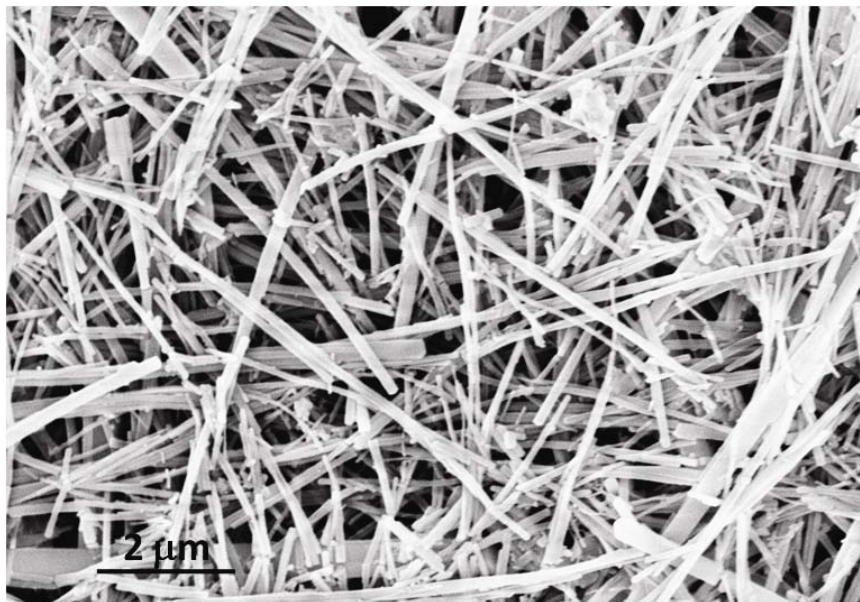


Figure S3. SEM image of Sc₃N@C₈₀-ZnTPyP nanorods at a larger scale (sample 4, ZnTPyP:Sc₃N@C₈₀=2:3).

S2. SEM image of C₆₀-ZnTPyP nanorods

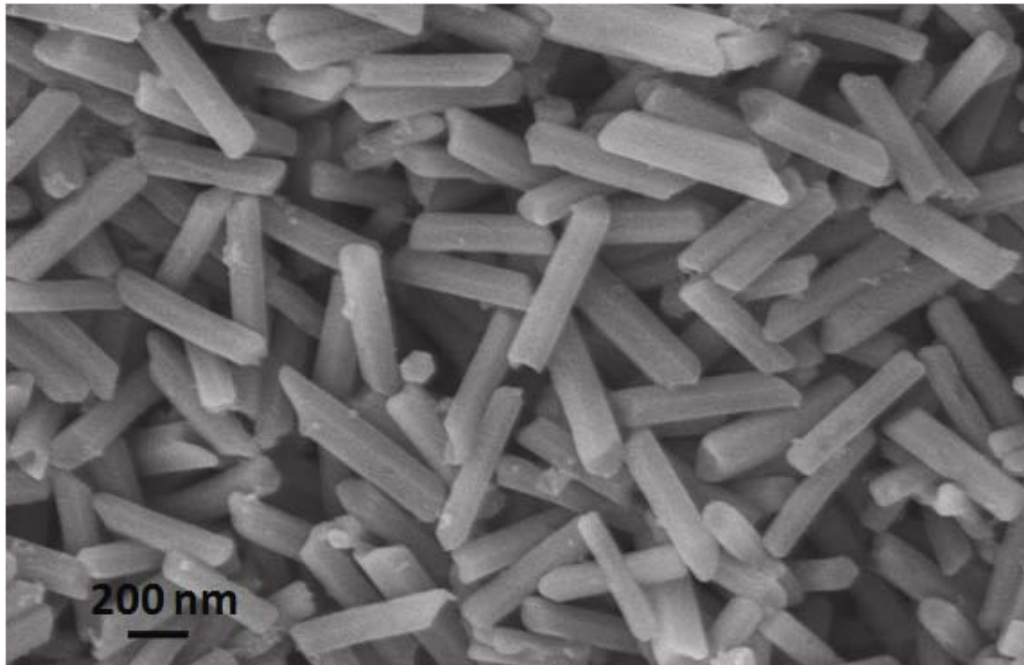


Figure S4. SEM image of C₆₀-ZnTPyP nanorods (ZnTPyP:C₆₀=3:2, water was used as the solvent of CTAB solution, DMF/water=2/15 (v/v)).

S3. TGA data of $Sc_3N@C_{80}$ -ZnTPyP nanorods in comparison to those of $Sc_3N@C_{80}$ and ZnTPyP monomer

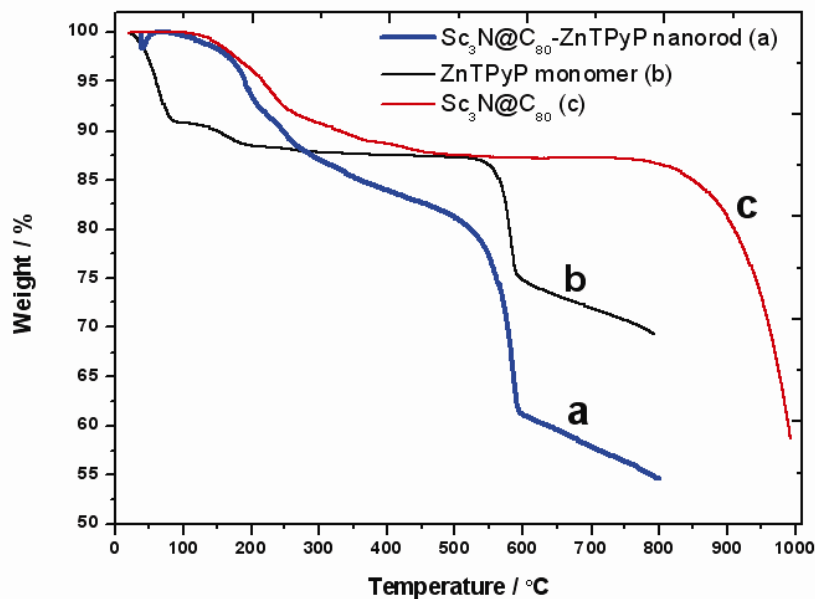


Figure S5. Thermal gravimetric analysis (TGA) curves of $Sc_3N@C_{80}$ -ZnTPyP nanorods (sample 2) (a), ZnTPyP monomer (b) and $Sc_3N@C_{80}$ (c).

S4. SEM images of $Sc_3N@C_{80}$ -ZnTPyP nanorods before and after standing for five months

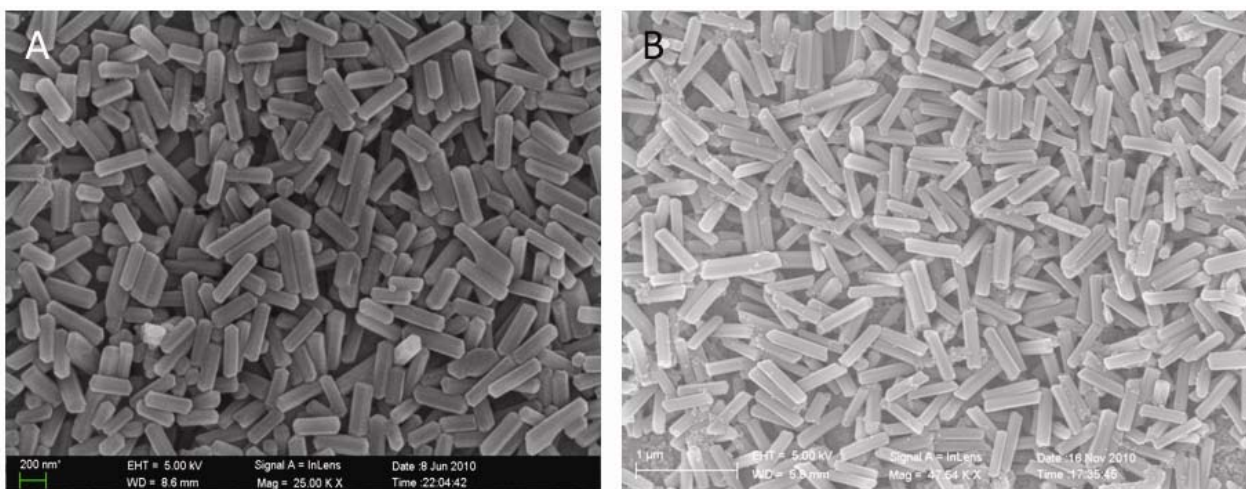


Figure S6. SEM images of $Sc_3N@C_{80}$ -ZnTPyP nanorods (sample 2) before and after standing for five months.

S5. Steady-state fluorescence spectra of Sc₃N@C₈₀-ZnTPyP nanorods and ZnTPyP nanotubes in different solvents

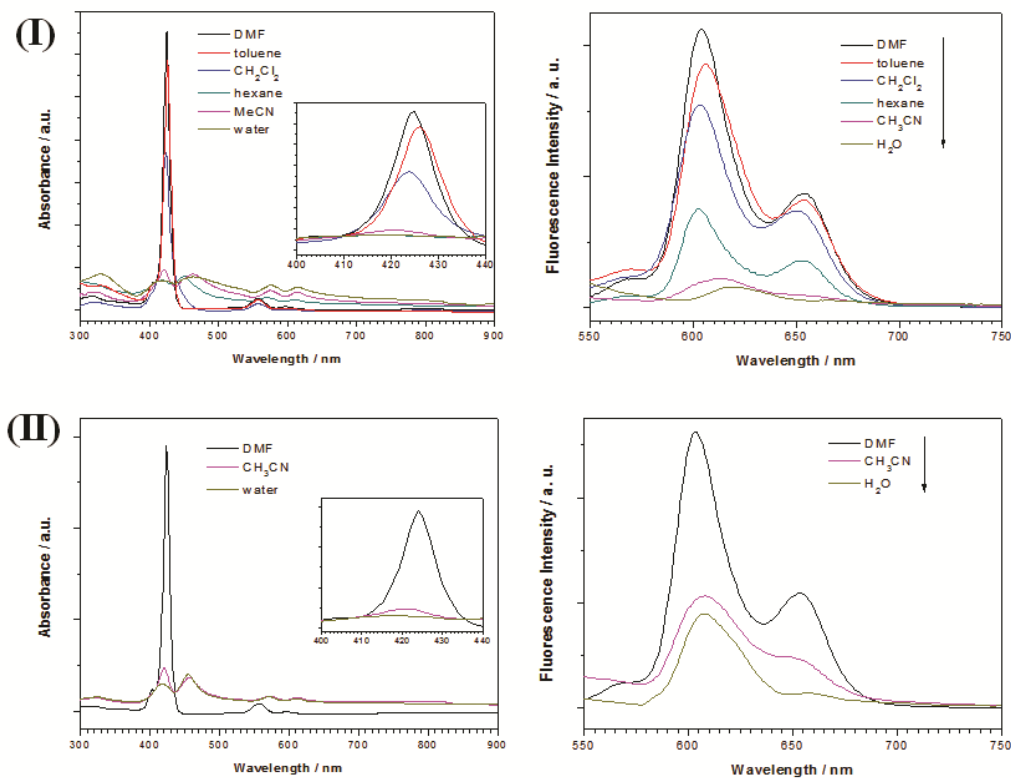


Figure S7. (I) UV absorption (left) and steady-state fluorescence spectra (right) of Sc₃N@C₈₀-ZnTPyP nanorods (sample 2) in DMF, toluene, CH₂Cl₂, hexane, CH₃CN, and H₂O. Excitation wavelength: 410 nm. (II) UV absorption (left) and steady-state fluorescence spectra (right) of ZnTPyP nanotubes (sample 5) in DMF, CH₃CN and H₂O. Excitation wavelength: 410 nm. Sample concentrations were adjusted to keep the same optical absorbance at the excitation wavelength of 410 nm.