

Electronic Supplementary Information

Ammonia assisted formation of tubular MOP-18 crystals

Wei Cao, Yiyin Mao and Xinsheng Peng*

State Key Laboratory of Silicon Materials, Department of Materials Science and Engineering,
Zhejiang University, Hangzhou, Zhejiang 310027, P. R. China

E-mail: pengxinsheng@zju.edu.cn

1. TGA analysis

The TGA curves indicates after evaporating the adsorbed solvent and vapors the first weight loss before 100°C), MOP-18 tubes are stable up to 300°C and eventually decomposed.

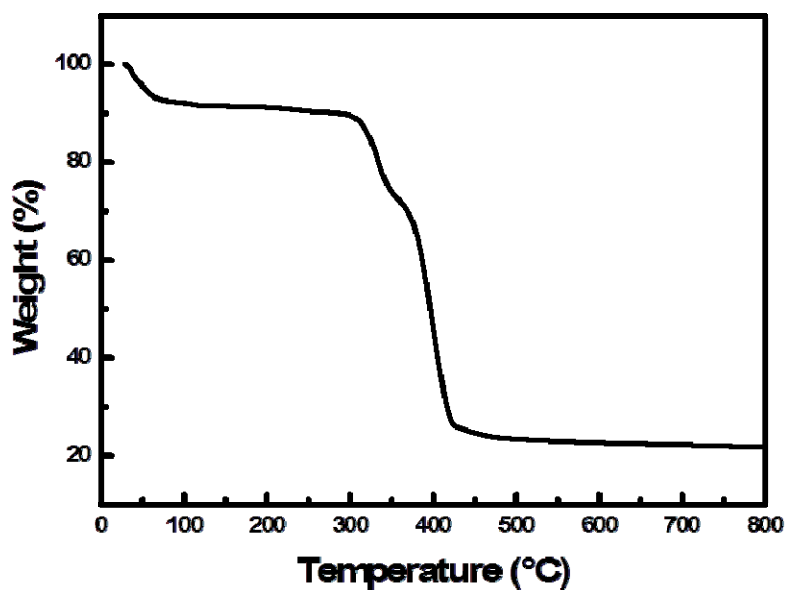


Figure S1. TGA curve of MOP-18 tubes prepared from CHNs under ambient conditions.

2. Morphology of CHNs after reacted with 5-OC₁₂H₂₅-mBDCH₂ in warm DMF solution

without ammonia:

Figure S2 shows the morphology of CHNs after reacted with 5-OC₁₂H₂₅-mBDCH₂ in warm DMF solution without ammonia. CHNs remained the free-standing film state instead of being dissolved in DMF. The morphology had changed from linear fibrous structure of original CHNs to pasty and amorphous particles. It is probably due to some interaction between 5-OC₁₂H₂₅-mBDCH₂ and CHNs, but it is not enough to form MOP-18.

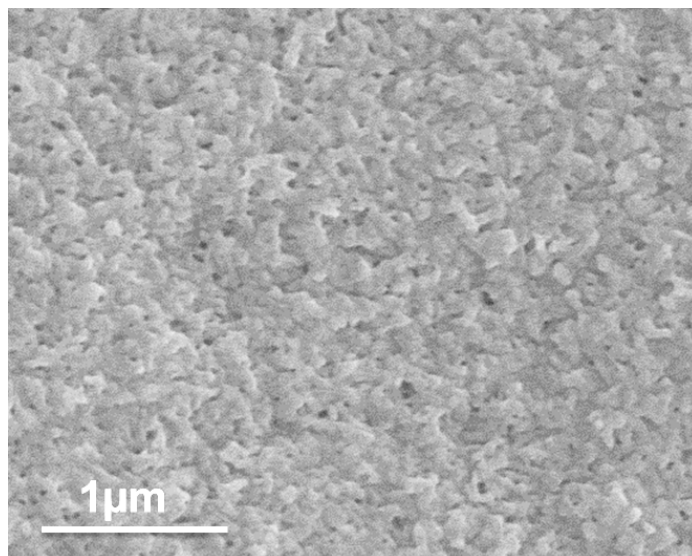


Figure S2. SEM image of CHNs after reacted with 5-OC₁₂H₂₅-mBDCH₂ in warm DMF solution without ammonia

3. MOP-18 rods recrystallized from pure DMF solution cooled in ice bath

Figure S3 shows that there are some small defects on the recrystallized MOP-18 rods in pure DMF cooling in ice bath.



Figure S3. MOP-18 rods recrystallized in pure DMF solution and cooled in ice bath