## **Supporting Information**

## Self-assembly of TiO<sub>2</sub> Nanoparticles into Chains, Films and Honeycomb Networks

Li Luo<sup>a,b</sup>, Peng-peng Wang<sup>a</sup>, Dengwei Jing<sup>\*b</sup>, Xun Wang \*<sup>a</sup>

<sup>a</sup>Department of Chemistry, Tsinghua University, Beijing, 100084, China E-mail: wangxun@mail.tsinghua.edu.cn

<sup>b</sup>School of Energy and Power Engineering, Xi'an Jiaotong University, Xi'an 710061, P. R. China.

E-mail: dwjing@mail.xjtu.edu.cn

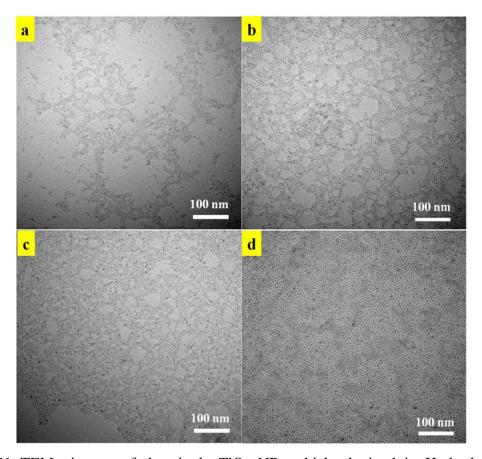


Fig. S1 TEM pictures of the single  $TiO_2$  NPs which obtained in Hydrothermal reaction in the first step, under the same temperature of  $150^{\circ}$ C with the different reaction time: a)1h, b)2h, c)4h, d)12h.