**Suporting Information**

**Porous TiO2 assembled from monodispersed nanoparticles**

Xu Liu, Weijie Duan, Yan Chen, Shihui Jiao, Yue Zhao, Yutang Kang, Lu Li, Zhenxing Fang, Wei Xu, and Guangsheng Pang\*

State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, Jilin University, Changchun, Jilin 130012, P. R. of China

E-mail: [panggs@jlu.edu.cn](mailto:panggs@jlu.edu.cn)

E:\my future\paper-4版-球\组装\图\fig S1.tif

**Figure S1.** XRD patterns of TiO2-NPs

Figure S1 shows the XRD patterns of the as-prepared TiO2 nanoparticles (TiO2-NPs) products synthesized under refluxing conditions. All the diffraction peaks were well indexed to the pure anatase phase of TiO2 (JCPDS No. 21-1272). The crystallite size (*d*XRD) was 3.2 nm, which was determined from the diffraction peak broadening via the Scherrer equation.

E:\my future\paper-4版-球\组装\图\fig S2.tif

**Figure S2.** TEM image of TiO2-NPs

As shown in figure S2, the as-prepared anatase TiO2 product is well-dispersed nanoparticles. The grain size (*d*TEM) determined by TEM was 3.0 nm based on ca. 100 particles in the sample (the size distribution histogram is shown in figure S3), which is in good agreement with the XRD result.

E:\my future\paper-4版-球\组装\图\fig S3.tif

**Figure S3.** Size distribution histogram of TiO2-NPs

E:\my future\paper-4版-球\Nanoscale Research Letters\revise\Graph4.tif

**Figure S4.** IR spectrum of the porous transparent bulk TiO2

E:\my future\paper-4版-球\Nanoscale Research Letters\revise\Graph1.tif

**Figure S5.** TG analysis of the porous transparent bulk TiO2