## **Electronic Supplementary Information**

Synthesis and characterization of hierarchical TiO<sub>2</sub> microspheres composed of nanorods: effect of reaction conditions on nanorod density

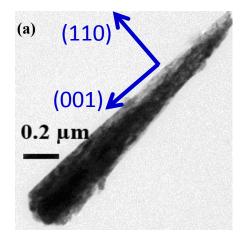
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**Fig. S1** (a) a typical nanorod as building unit in hierarchical  $TiO_2$  microspheres and (b) selected area electron diffraction (SAED) pattern (scale bar in Fig. S1b is 5 1/nm).



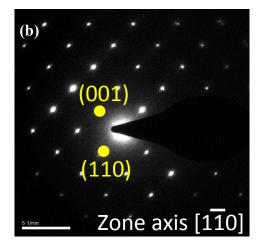
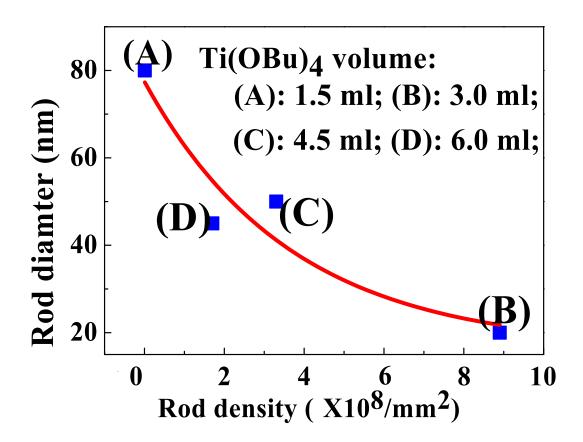
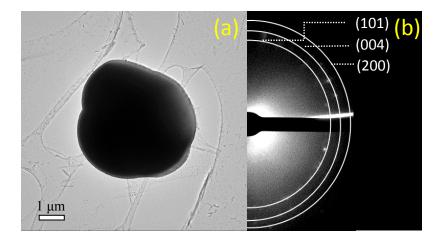


Fig. S2 Relationship between TiO<sub>2</sub> rod density and rod diameter.



**Fig. S3** (a) TEM image of solid  $TiO_2$  microspheres prepared in the presence of  $Na_2SO_4$  as additives and (b) selected electron diffraction pattern.



**Fig. S4** XRD pattern of solid TiO<sub>2</sub> microspheres prepared in the presence of Na<sub>2</sub>SO<sub>4</sub> as additives by hydrothermal method.

