Supporting Information for crystal growth by leaps and bounds based on self-assembly: Insight from titania

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Fig. S1. TEM images of tiny TiO\textsubscript{2} NPs precipitated in non-H\textsubscript{2}SO\textsubscript{4} system (a, b, c, d) and spindle-shaped TiO\textsubscript{2} NPs obtained in the reaction system with H\textsubscript{2}SO\textsubscript{4} (e, f, g, h) under different reaction temperature for 8 h: (a,e) 90, (b,f) 120, (c,g) 150, (d,h) 180 °C.
Fig. S2. XRD patterns of the products obtained in hydrothermal system with H₂SO₄ at 150 °C for different duration: (1) 2, (2) 1, (3) 0.5 h.

Fig. S3. TEM images of products synthesized with different amount of concentrated H₂SO₄ in the system under the same reaction temperature of 150 °C and time of 3 h: (a) 0.05, (b) 0.1, (c) 0.25, (d) 0.5, (e) 0.75, (f) 1 ml.
Fig. S4. TEM image of TiO$_2$ NPs obtained under the hydrothermal condition of 150 °C for 4 h.
Fig. S5. TEM images of products obtained under the hydrothermal condition of 150 °C for 4 h. HNO\textsubscript{3} (a), HCl (c), CH\textsubscript{3}COOH (d) and Na\textsubscript{2}SO\textsubscript{4} with the equimolar quantity of hydrogen ion and sulfate ion were used instead of H\textsubscript{2}SO\textsubscript{4} in the system, comparing the samples formed separately from the systems with HNO\textsubscript{3} (b), HCl (d), CH\textsubscript{3}COOH (f) only.