Hierarchical TiO$_2$ Nanoflowers/Nanosheets Array Film: Synthesis, Growth Mechanism and Enhanced Photoelectrochemical Properties

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Figure S1. FESEM images of TiO$_2$ nanostructures film as-prepared without the annealed treatment.

Figure S2. Cross-sectional FESEM images of TiO$_2$ nanostructures film prepared at 170℃ with 0.04M (NH$_4$)$_2$TiF$_6$ and 1 mL titanium butoxide for (A) 2 h; (B) 4 h; (C) 6 h; (D) 8 h; (E) 10 h; (F) 12 h.
Figure S3. High-magnification FESEM images of TiO$_2$ nanostructures film prepared at 170°C with 0.04M (NH$_4$)$_2$TiF$_6$ and 1 mL titanium butoxide for 4 h.

Figure S4. FESEM images of TiO$_2$ nanostructures film prepared for 14 h with 0.04 M (NH$_4$)$_2$TiF$_6$ and 1 mL titanium butoxide at (A) 150°C, (B) 160°C; (C): the corresponding XRD patterns of TiO$_2$ nanostructures film prepared at (a) 150°C, (b) 160°C.