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## Alkali Metal Ion Assisted Synthesis of Faceted Anatase TiO<sub>2</sub>

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### Supporting Information

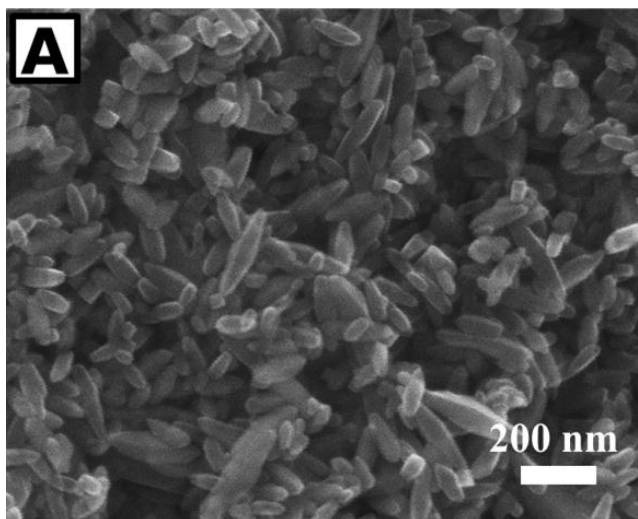


Fig. S1 FESEM images of spindle-shaped TiO<sub>2</sub> obtained in hydrothermal process in D. I. water.

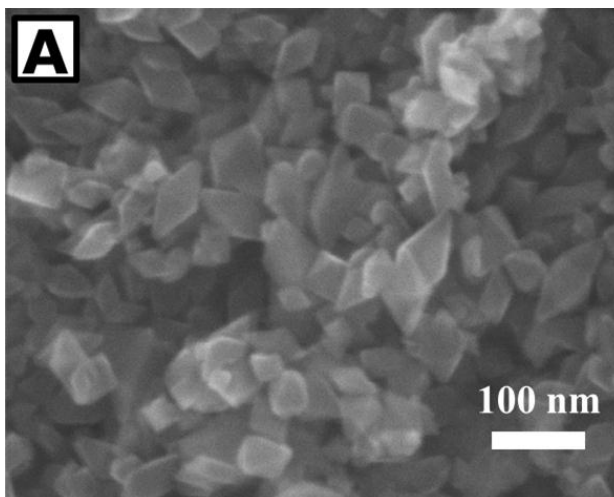


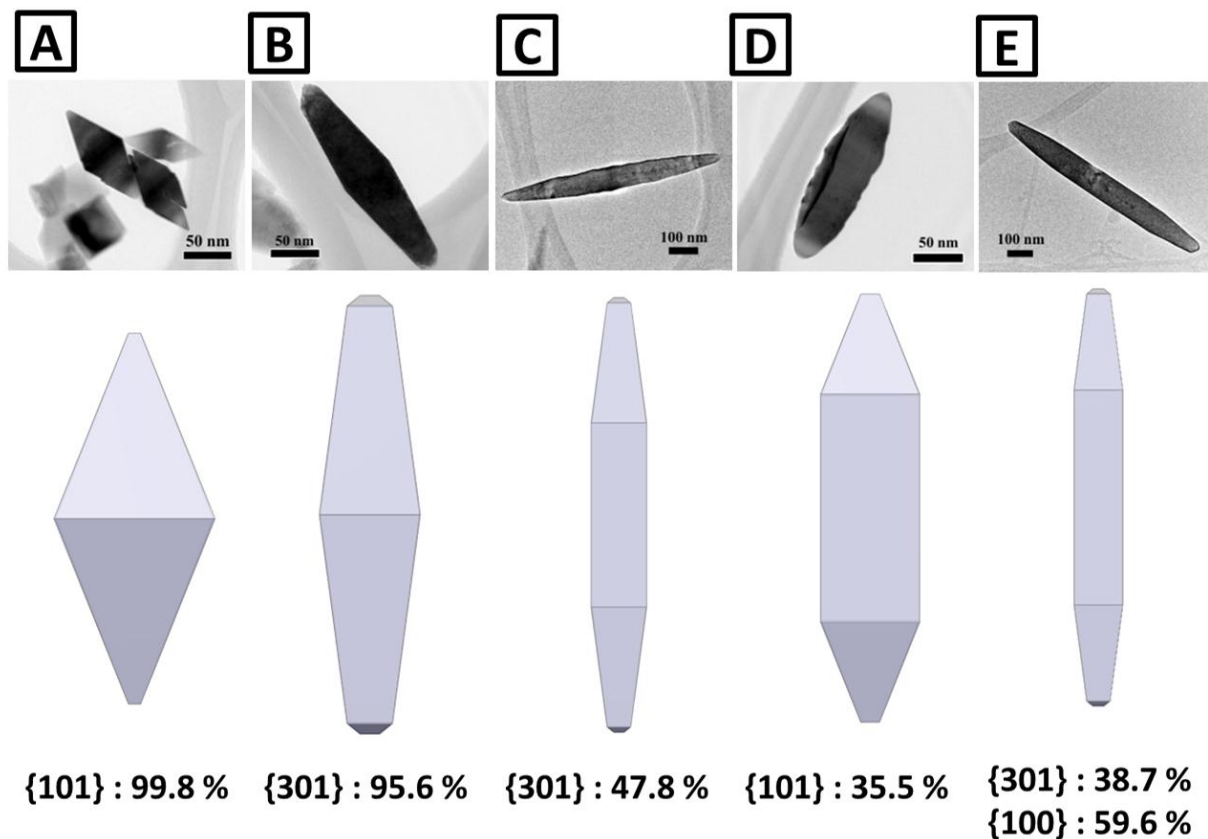
Fig. S2 FESEM images of bipyramidal TiO<sub>2</sub> obtained in hydrothermal process in mixed solution of 0.075 M LiCl and 0.25 M KCl.

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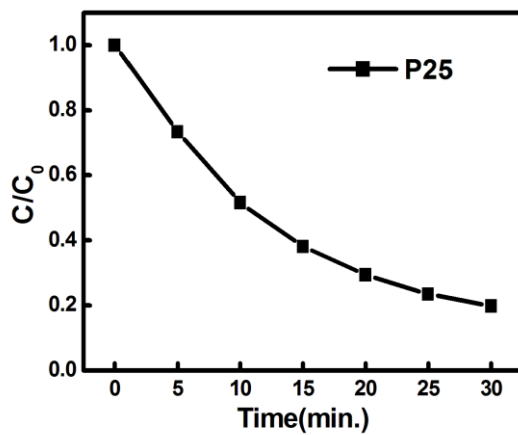
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**Scheme S1** The geometric characterization of the TiO<sub>2</sub> exposed face percentage (A) B-TiO<sub>2</sub> (B) S-TiO<sub>2</sub> (C) N1-TiO<sub>2</sub> (D) O-TiO<sub>2</sub> (E) N2-TiO<sub>2</sub>



**Fig. S3** Photocatalytic performance of commercial P25 and its photodegradation rate constant ( $k = 0.055 \text{ min}^{-1}$ )