

ARTICLE

Anatase and Brookite TiO₂ with Various Morphologies and Their Proposed Building Block

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Supporting Information

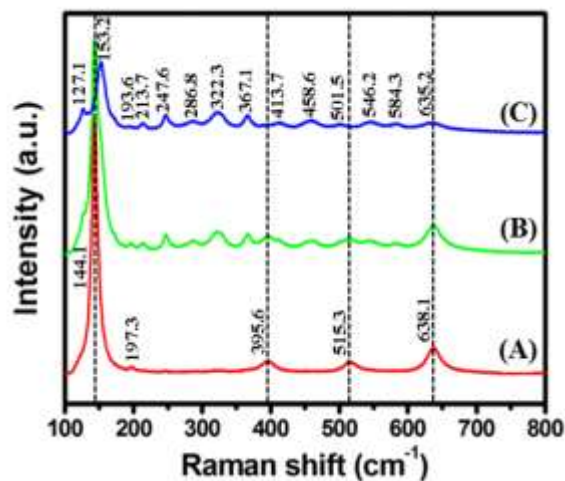


Figure S1. Raman spectrum of TiO₂ obtained in (A) 0 M (B) 0.4 M (D) 1 M NaF using T8 as a precursor in hydrothermal process.

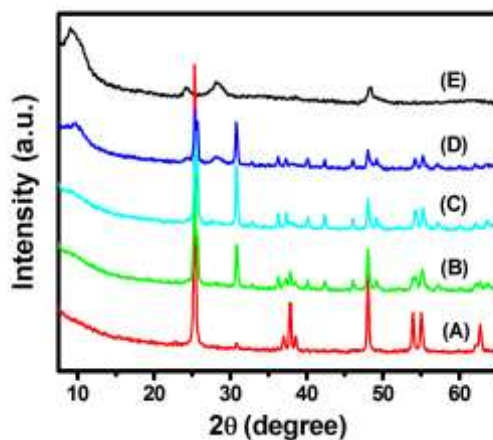


Figure S2. Powder XRD patterns of TiO₂ obtained in (A) 0 M (B) 0.4 M (C) 0.6 M (D) 1 M NaF using T8 (E) as a precursor in hydrothermal process.

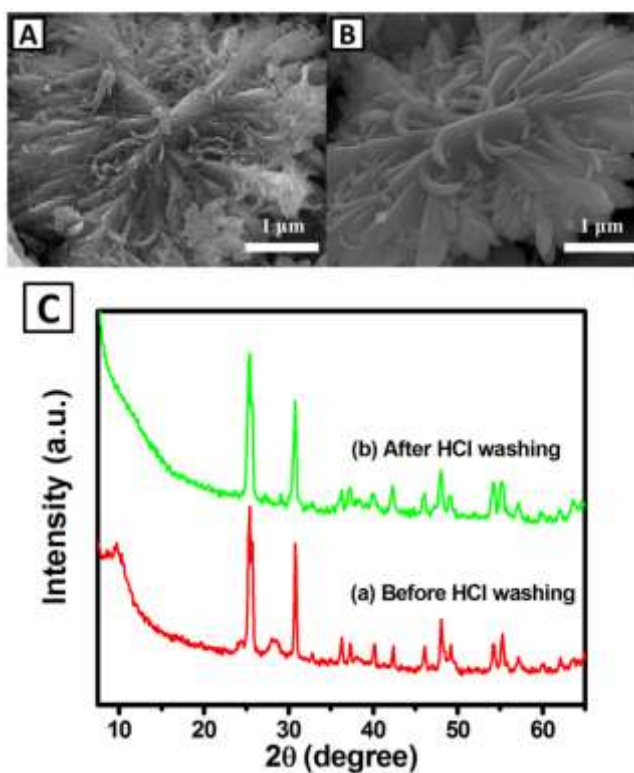


Figure S3. FESEM images of TiO₂ (A) before (B) after 1 M HCl washing. (C) Powder XRD patterns of TiO₂ (TiO₂ obtained in 1 M NaF using T8 as a precursor)

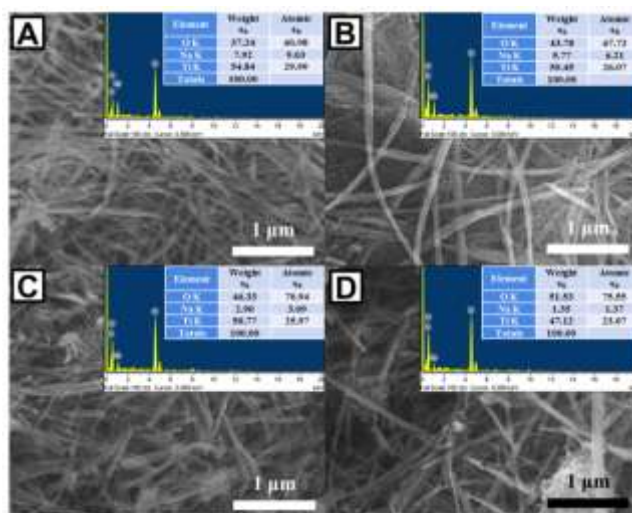


Figure S4. FESEM images and EDS analyses of acid treatment titanate (A) T8 (B) T5 (C) T4 (D) T2 in pH 8, pH 5, pH4 and pH 2 solutions, respectively.

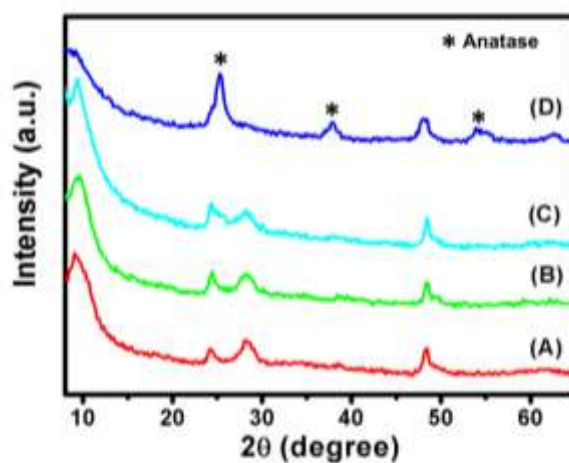


Figure S5. Powder XRD patterns of titanates (A) T8, (B) T5, (C) T4 and (D) T2.

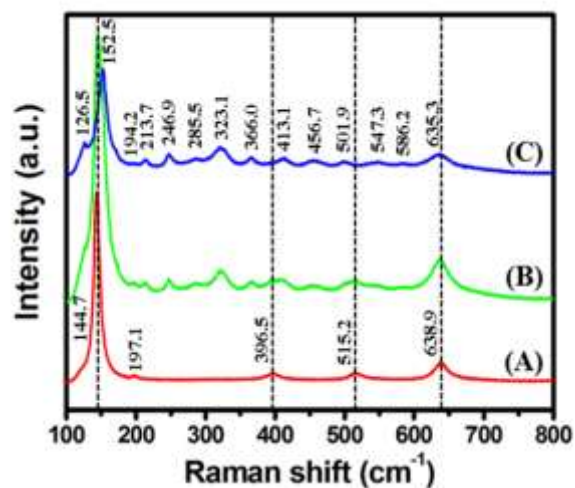


Figure S6. Raman spectrum of TiO₂ obtained in (A) 0 M (B) 0.4 M (D) 1 M NaF using T5 as a precursor in hydrothermal process.

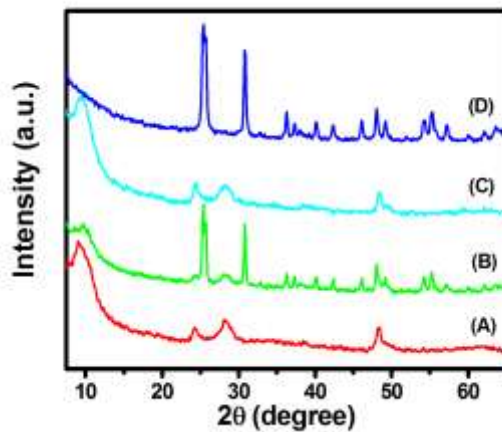


Figure S7. Powder XRD patterns of titanates (A) T8 (C) T5 were used as a precursor. TiO₂ (B) and (D) were obtained T8 and T5 precursors respectively in 1 M NaF.

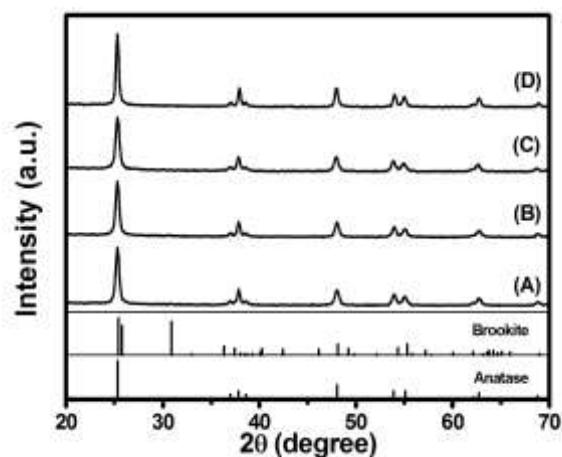


Figure S8. Powder XRD patterns of TiO_2 obtained in the presence of 1 M (A) NaCl (B) NaBr (C) LiF (D) KF salts solution using T5 as a precursor in hydrothermal process.

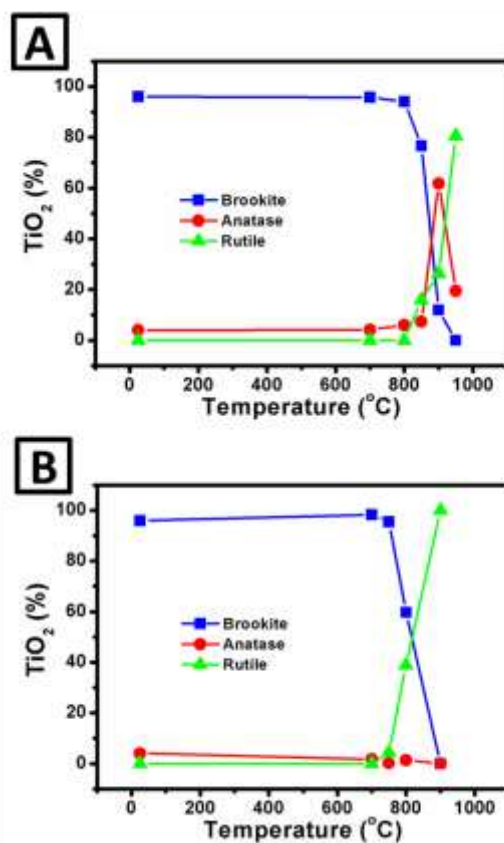


Figure S9. The contents of brookite, anatase and rutile TiO_2 by annealed (A) micro-sized flower-like brookite (B) submicro-sized urchin-like brookite at different temperatures for 1 hr.

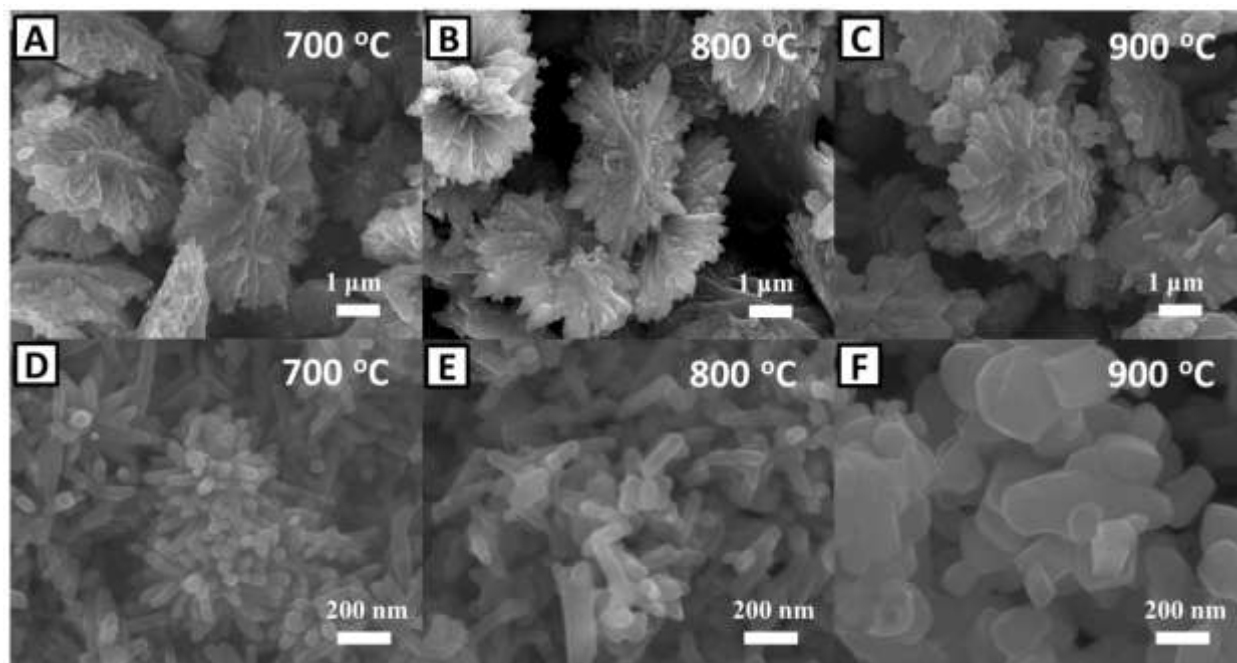


Figure S10. FESEM images of of (A)-(D) micro-sized flower-like brookite and (E)-(H) submicro-sized urchin-like brookite were annealed at various temperatures for 1 hr.

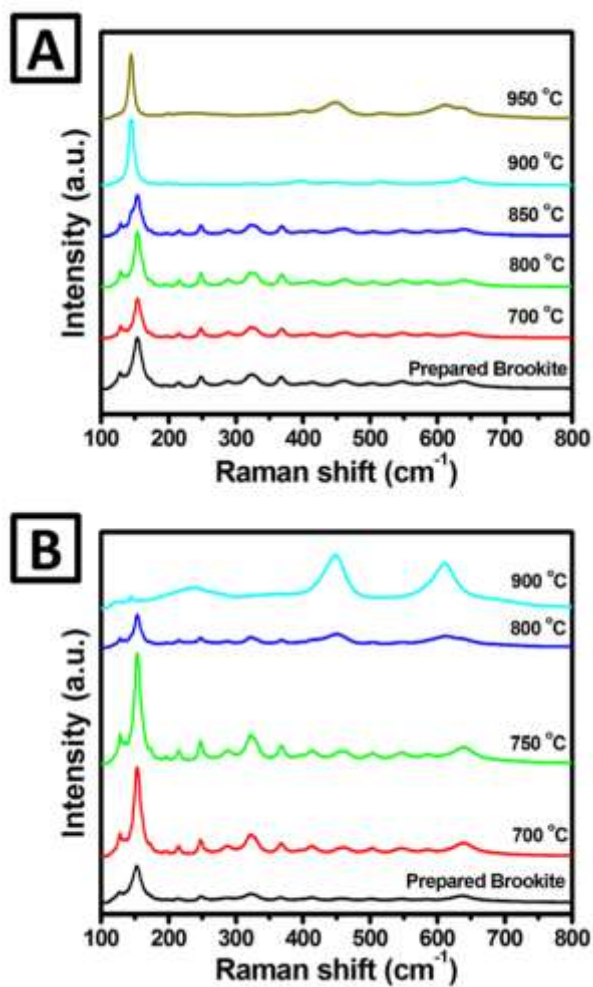


Figure S11. Raman spectra of (A) micro-sized flower-like brookite and (B) submicro-sized urchin-like brookite were annealed at various temperatures for 1 hr.