

Electronic Supplementary Information for

One-pot synthesis of 3-D dandelions-like architectures constructed by rutile TiO₂ nanorods grown along [001] axis for high-rate lithium ion batteries

Yu Bai,^a Naiqing Zhang, ^{*,a,b} and Kening Sun^{*,a,b}

^a Academy of Fundamental and Interdisciplinary Sciences, Harbin Institute of Technology, Harbin, 150001, China.

^b State Key Laboratory of Urban Water Resource and Environment, Harbin Institute of Technology, Harbin, 150090, PR China.

* To whom correspondence should be addressed. E-mail: keningsunhit@126.com; znqmww@126.com;

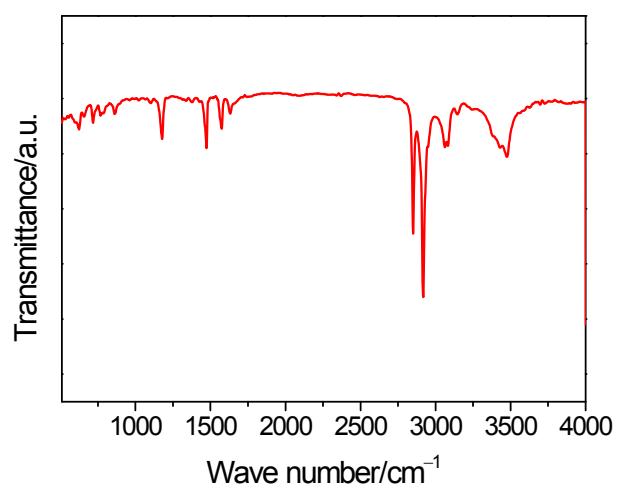


Fig. S1 FT-IR spectrum of C16mimBr.

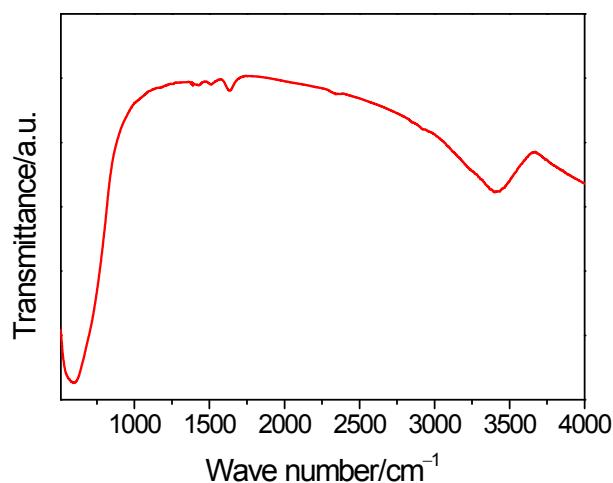


Fig. S2 FT-IR spectrum of the TiO₂ rutile.

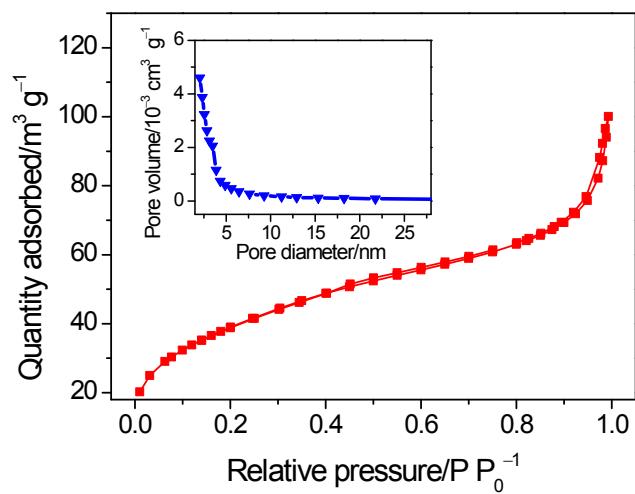


Fig. S3 N₂ adsorption/desorption isotherms for the TiO₂ rutile (the inset shows the BJH data).

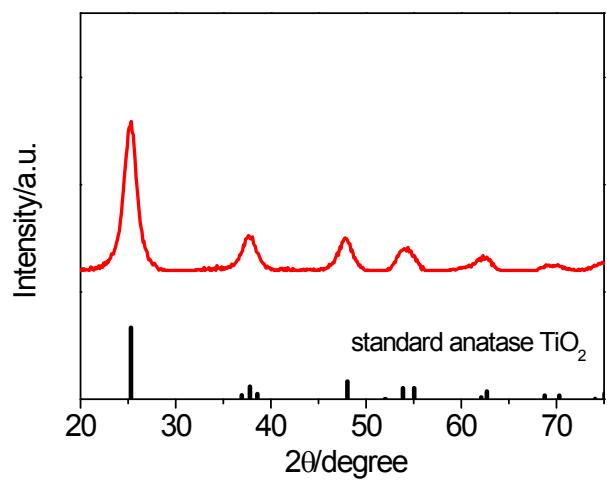


Fig. S4 XRD of standard anatase TiO_2 (JCPDS. No. 65-5714) and the as-derived TiO_2 without C16mimBr in the synthesizing procedure.

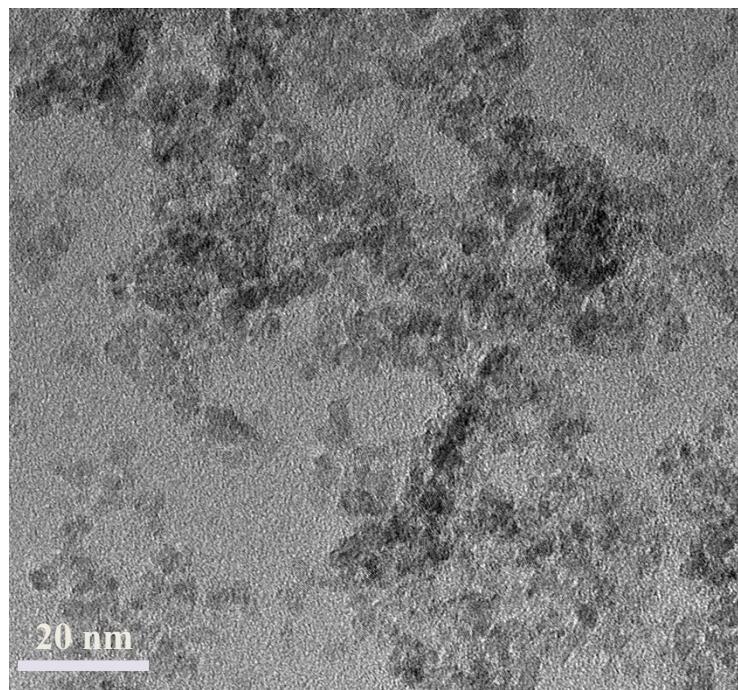


Fig. S5 TEM image of the as-derived anatase TiO_2 without C16mimBr in the synthesizing procedure.

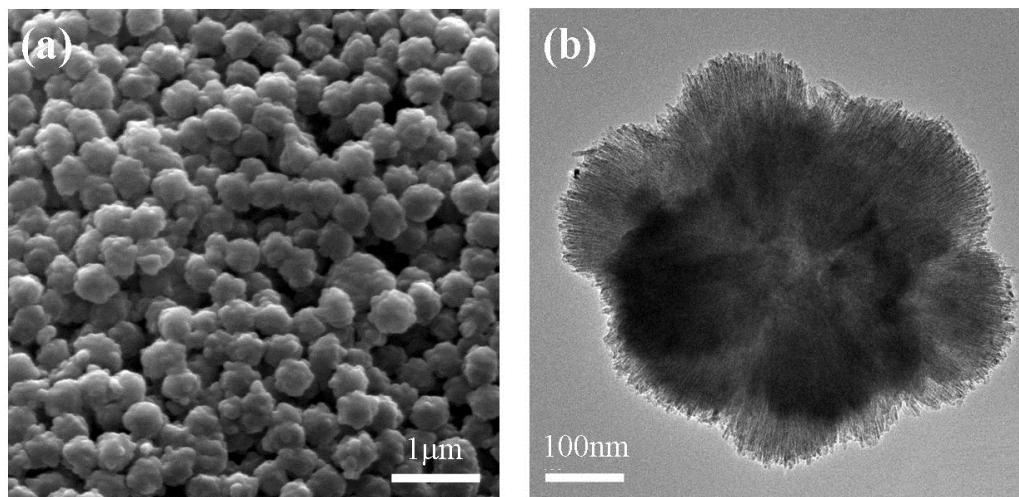


Fig. S6. (a) Representative SEM image of rutile TiO₂ after the cycling process.
(b) TEM image of a TiO₂ particle after the cycling proces