

## Supporting Information

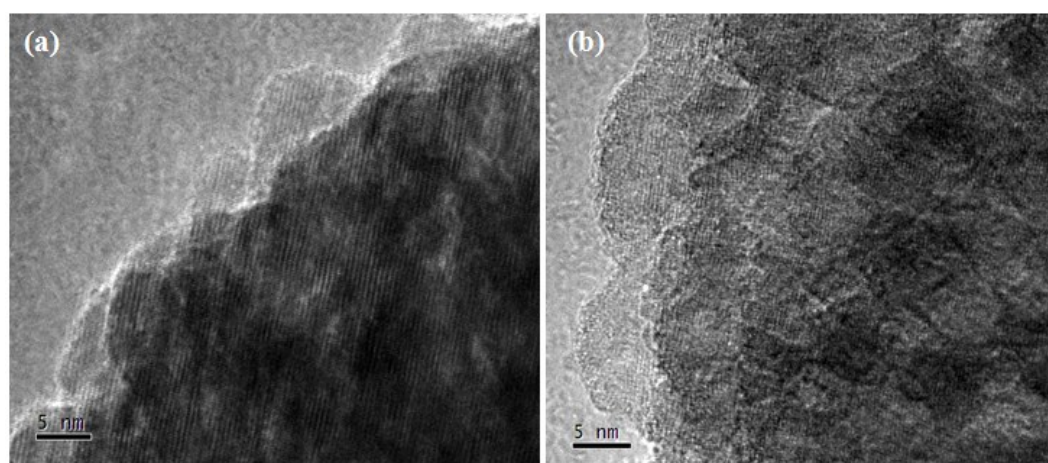
### Facile synthesis of rutile TiO<sub>2</sub> mesocrystals with enhanced sodium storage properties

Zhensheng Hong,<sup>\*a</sup> Kaiqiang Zhou,<sup>a</sup> Junwen Zhang,<sup>a</sup> Zhigao Huang<sup>a</sup> and Mingdeng Wei<sup>\*b,c</sup>

<sup>a</sup>Fujian Provincial Key Laboratory of Quantum Manipulation and New Energy Materials, College of Physics and Energy, Fujian Normal University, Fuzhou, Fujian 350108, China. E-mail: winter0514@163.com

<sup>b</sup>State Key Laboratory of Photocatalysis on Energy and Environment, Fuzhou University, Fuzhou, Fujian 350002, China.

<sup>c</sup>Institute of Advanced Energy Materials, Fuzhou University, Fuzhou, Fujian 350002, China; E-mail: wei-mingdeng@fzu.edu.cn



**Fig. S1** HRTEM images of (a) C-TiO<sub>2</sub>-RM and (b) N-TiO<sub>2</sub>-RM.

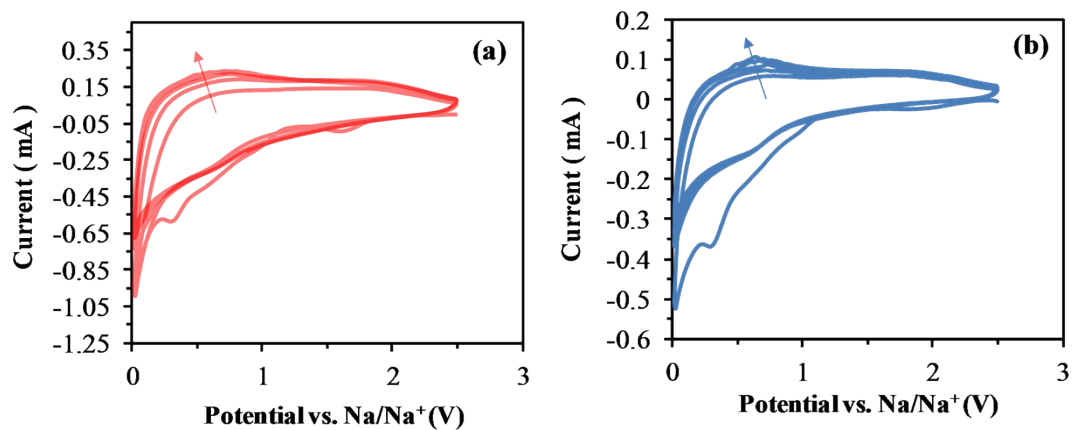


Fig. S2 Cyclic voltammety curves of (a) C-TiO<sub>2</sub>-RM and (b) N-TiO<sub>2</sub>-RM.

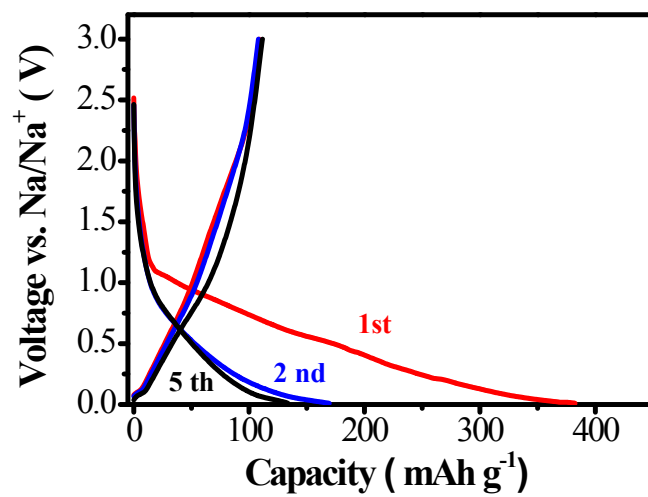
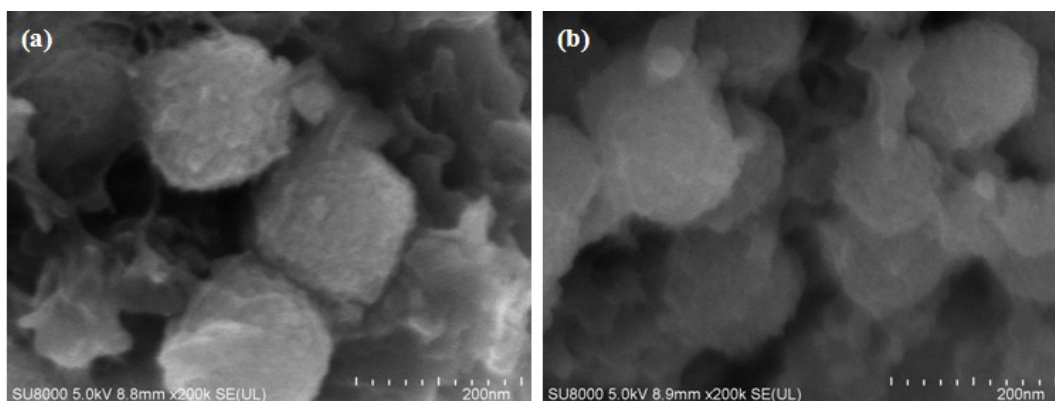
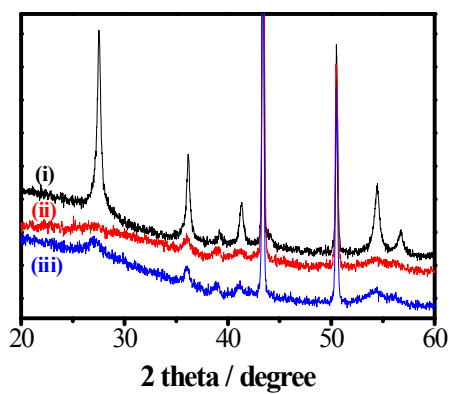


Fig. S3 Charge-discharge profiles of TiO<sub>2</sub>-RNP.



**Fig. S4** SEM images of (a) C-TiO<sub>2</sub>-RM and (b) N-TiO<sub>2</sub>-RM after rate cycling test.



**Fig. S5** XRD patterns of C-TiO<sub>2</sub>-MR electrode at various states: i) fresh, ii) first discharge and iii) first charge.