Supporting Information

Efficient Charge Migration in TiO_2@PB Nanorod Arrays with Core-shell Structure for Photoelectrochemical Water Splitting

Guobing Mao [#a], Chunxiao Li [#a], Zhengdao Li [b], Miao Xu [*a], Heng Wu [a], and Qi Liu [*a]

[a] *School of materials science and engineering, Anhui Polytechnic University, Wuhu, Anhui 241000, China;*

[b] *Chemistry and Pharmaceutical Engineering College, Nanyang Normal University, Nanyang, Henan 473061, China.*

* Corresponding author. Tel: +86-553-2871-738; E-mail: modieer_67@ahpu.edu.cn

Corresponding author. Tel: +86-553-2871-738;; E-mail: 2150130102@ahpu.edu.cn

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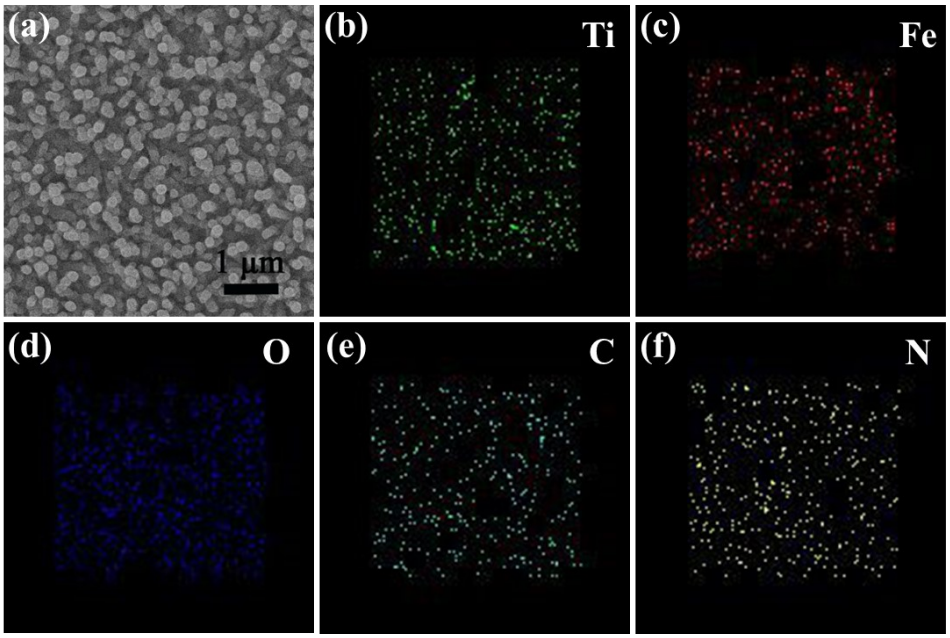

Fig. S1 (Color online) (a) SEM image of TiO_2@PB, SEM elemental mapping of (b) Ti, (c) Fe, (d) O, (e) C and (f) N.

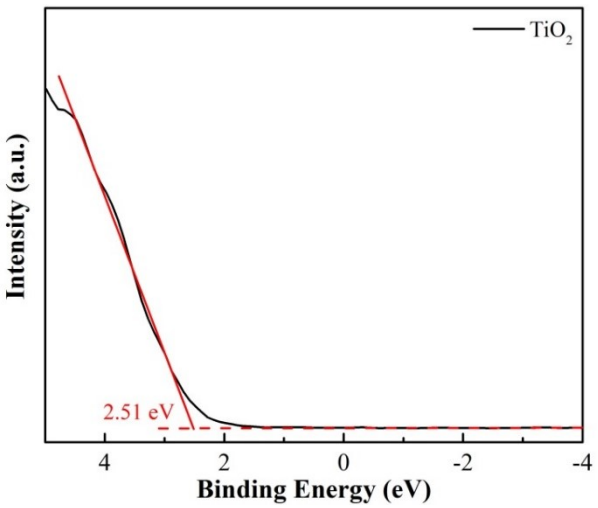

Fig. S2 (Color online) Valence band spectra of TiO_2.

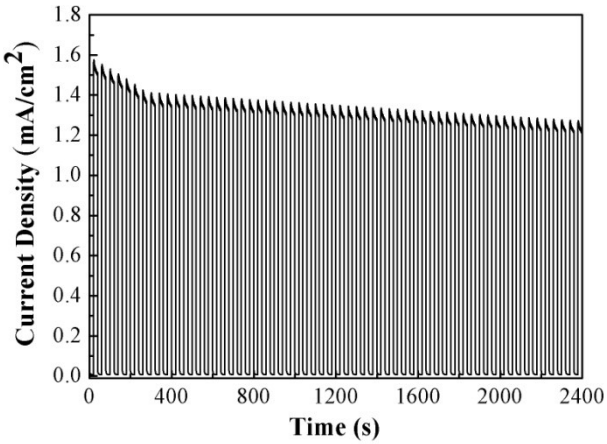

Fig. S3 Stability test of TiO_2@PB photoelectrode conducted under chopped illumination for 2400 s.

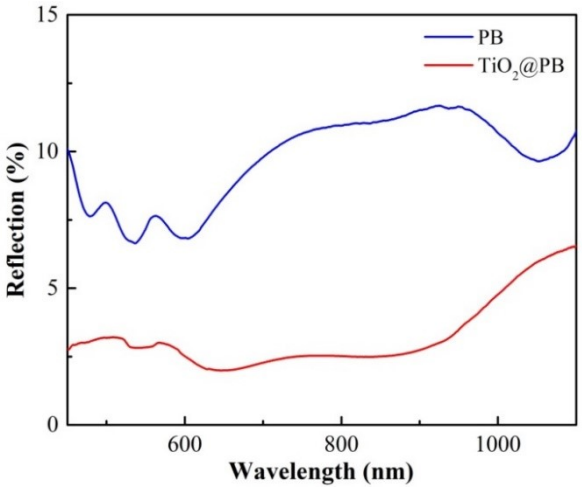

Fig. S4 Reflectance spectra of the PB and TiO_2@PB film in the colored state.

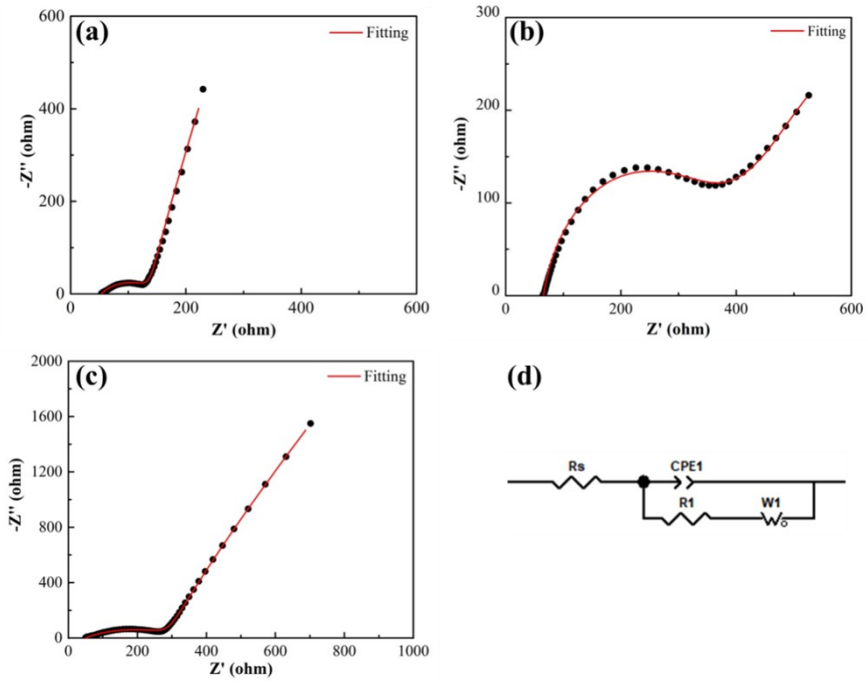

Fig. S5 Nyquist plots of the electrode (black) and fitting (red): (a) PB, (b) TiO_2, (c) TiO_2@PB. (d) the equivalent circuit used for fitting the experimental impedance data.

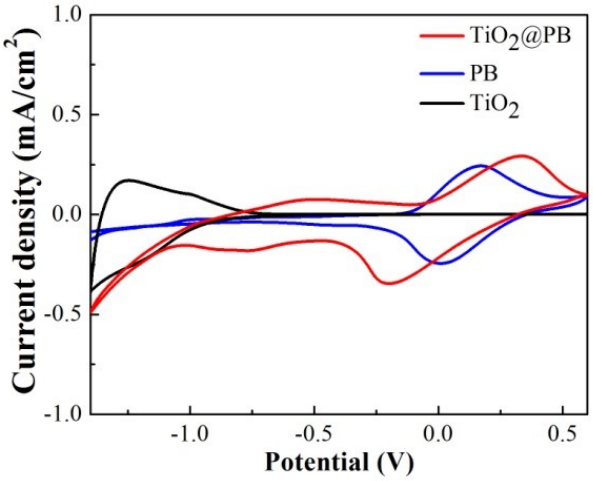

Fig. S6 Cyclic voltammetry (CV) curves at a scan rate of 20 mV s^{-1} for PB, TiO_2 and TiO_2@PB films