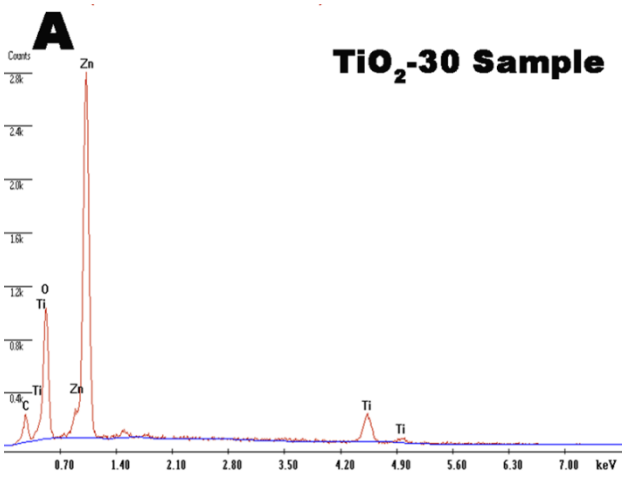
Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Stable ZnO@TiO_2 Core/Shell Nanorod Array Exposed High Energy Facets for Self-cleaning Coating with Antireflective Property†

Ruosong Wang,[ab] Huaqiao Tan,[a] Zhao Zhao,[a] Guoqiang Zhang,[a] Laiwen Song,[a] Wenfei Dong,[*b] and Zaicheng Sun[*a]

[a] *State Key Laboratory of Luminescence and Applications, Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Science, 3888 East Nanhu Road, Changchun 130033, People's Republic of China. E-mail: sunzc@ciomp.ac.cn*

[b] *Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Science, 88 Keling Road, Suzhou 215163, People's Republic of China. E-mail: wenfeidong@126.com*



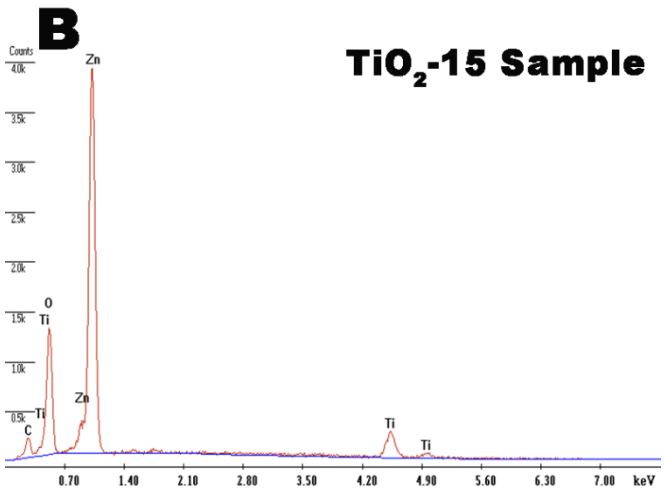
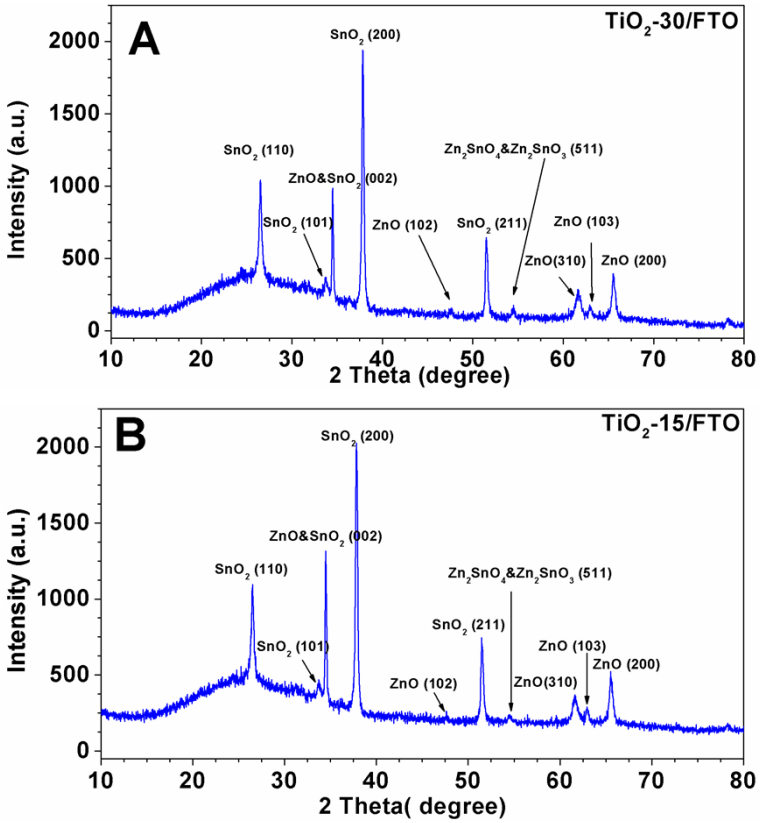


Figure S1 The energy-dispersive X-ray spectroscopy (EDX) of the products (A) TiO_2-30 and (B) TiO_2-15 in our experiments.



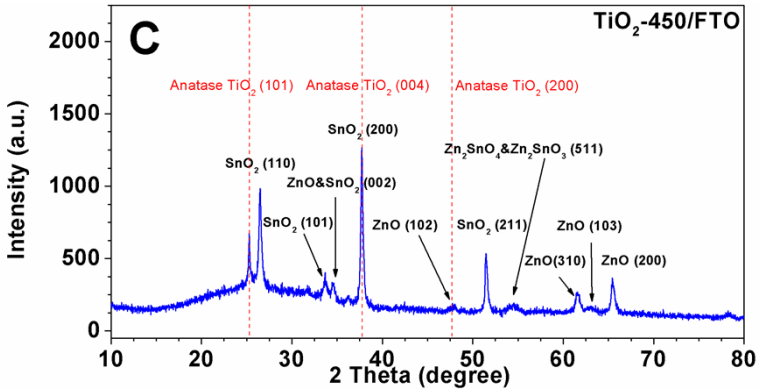


Figure S2 The X-ray diffraction (XRD) patterns of the products (A) TiO_2-30 and (B) TiO_2-15 in our experiments. Note that no obvious TiO_2 crystalline phase peaks can be observed due to the thin TiO_2 layer, and the broad band around 25º was owing to the amorphous glass substrate. When the amount of titanium (IV) isopropoxide reaches 450 μL, the TiO_2 shell is thick enough for XRD detection. (C) The peak at 25.2º can be observed in the XRD pattern, attributing to the anatase TiO_2 (101) diffraction.

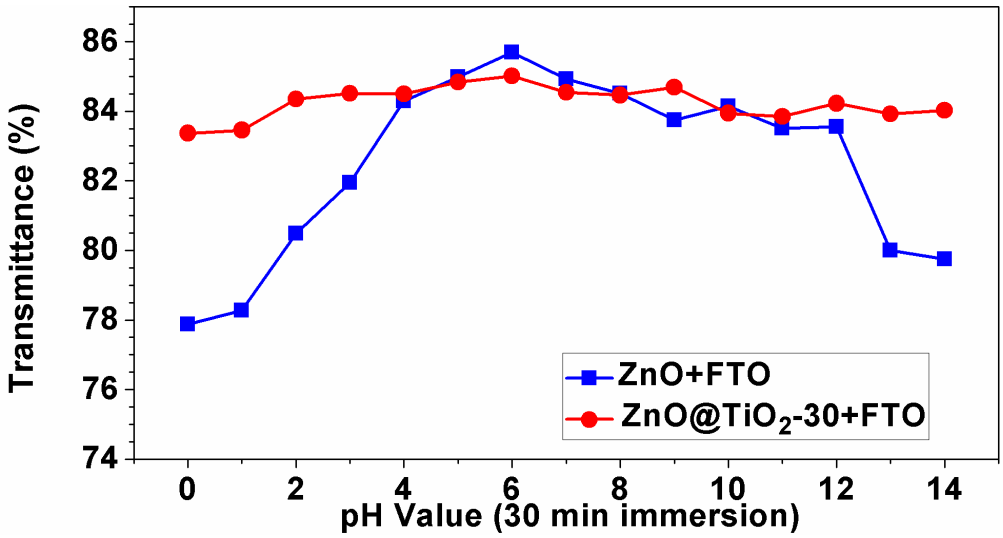


Figure S3 The stability measurements of TiO_2-30 and ZnO nanorod array on FTO substrates in different pH water.

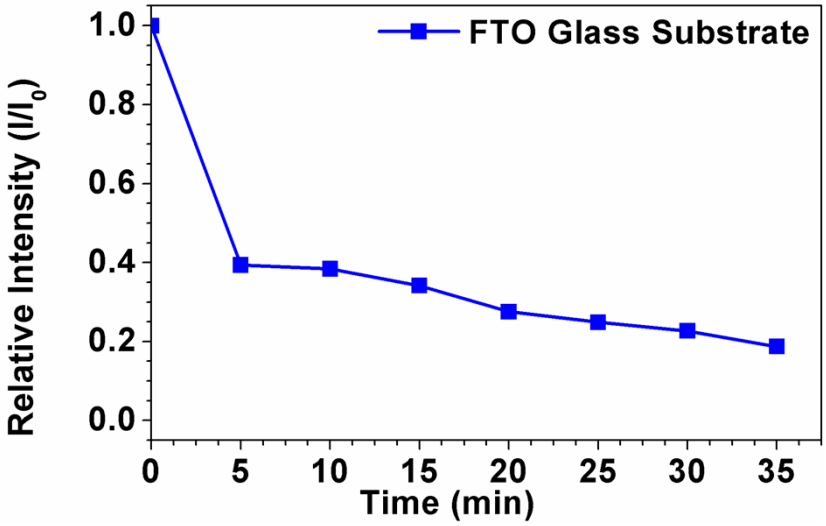


Figure S4 The degradation of RhB on bare FTO glass substrate under the same conditions mentioned in the text.