Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Hierarchically Branched Fe_2O_3@TiO_2 Nanorod Arrays for Photoelectrochemical Water Splitting: Facile Synthesis and Ehanced Photoelectrochemical Performance.

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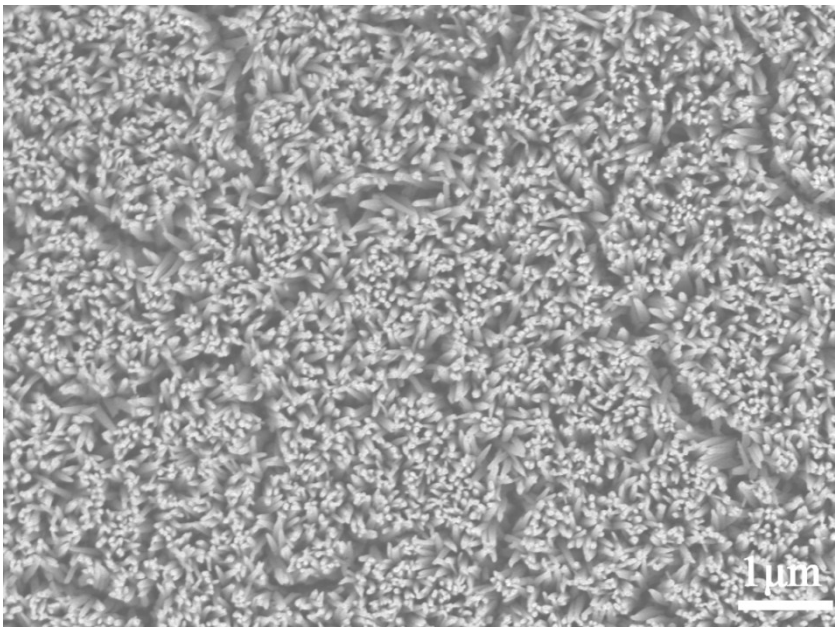

Fig. S1. Low-magnification SEM image of pristine Fe_2O_3 NRs.

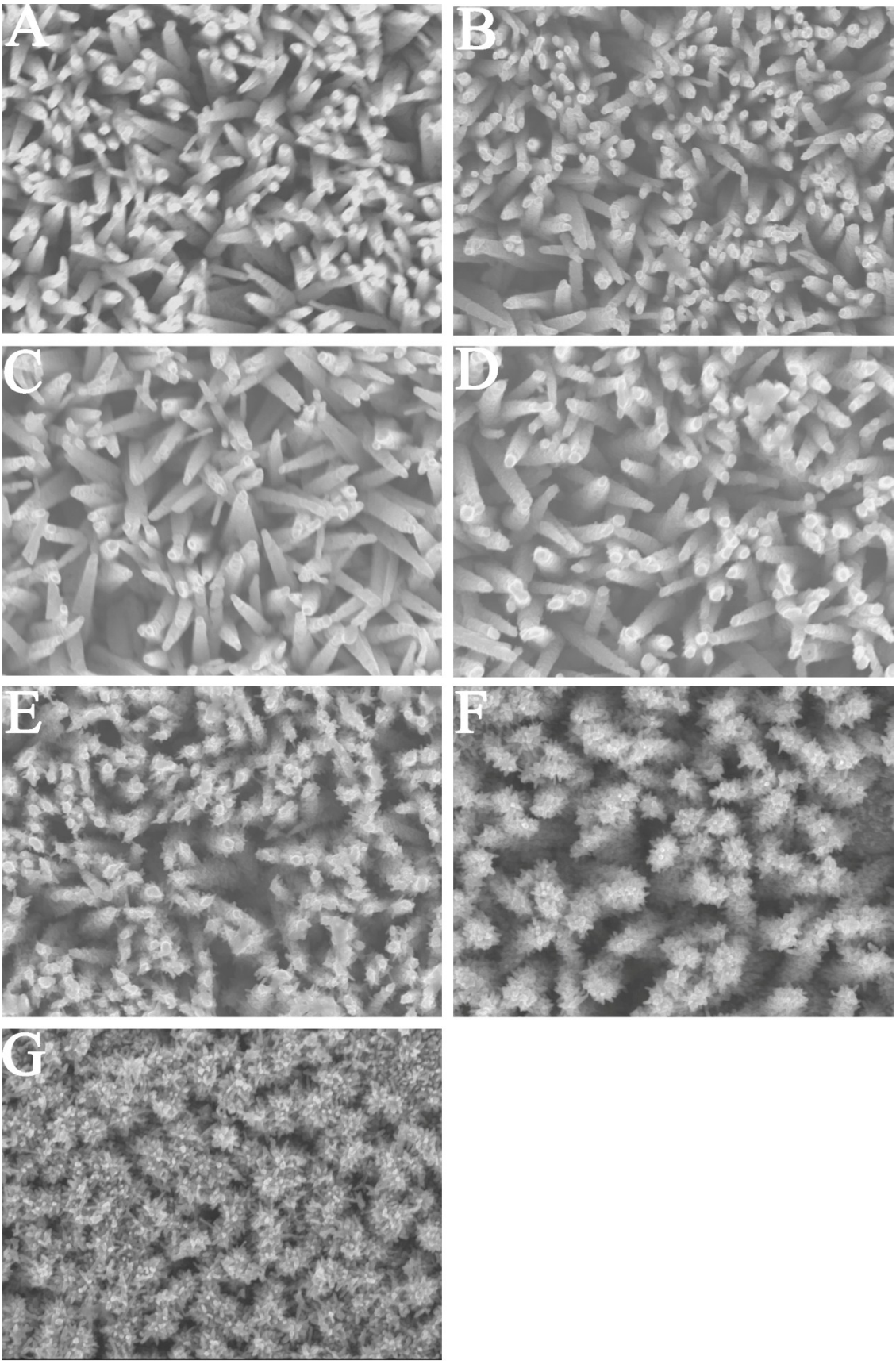

Fig. S2.Top-view SEM image of the Fe_2O_3@TiO_2 BNRs with different

growth time (A 1h, B 1.5 h, C 2h, D 2.5 h, E 3h, F 3.5 h, G 4h).Scale bar=100 nm

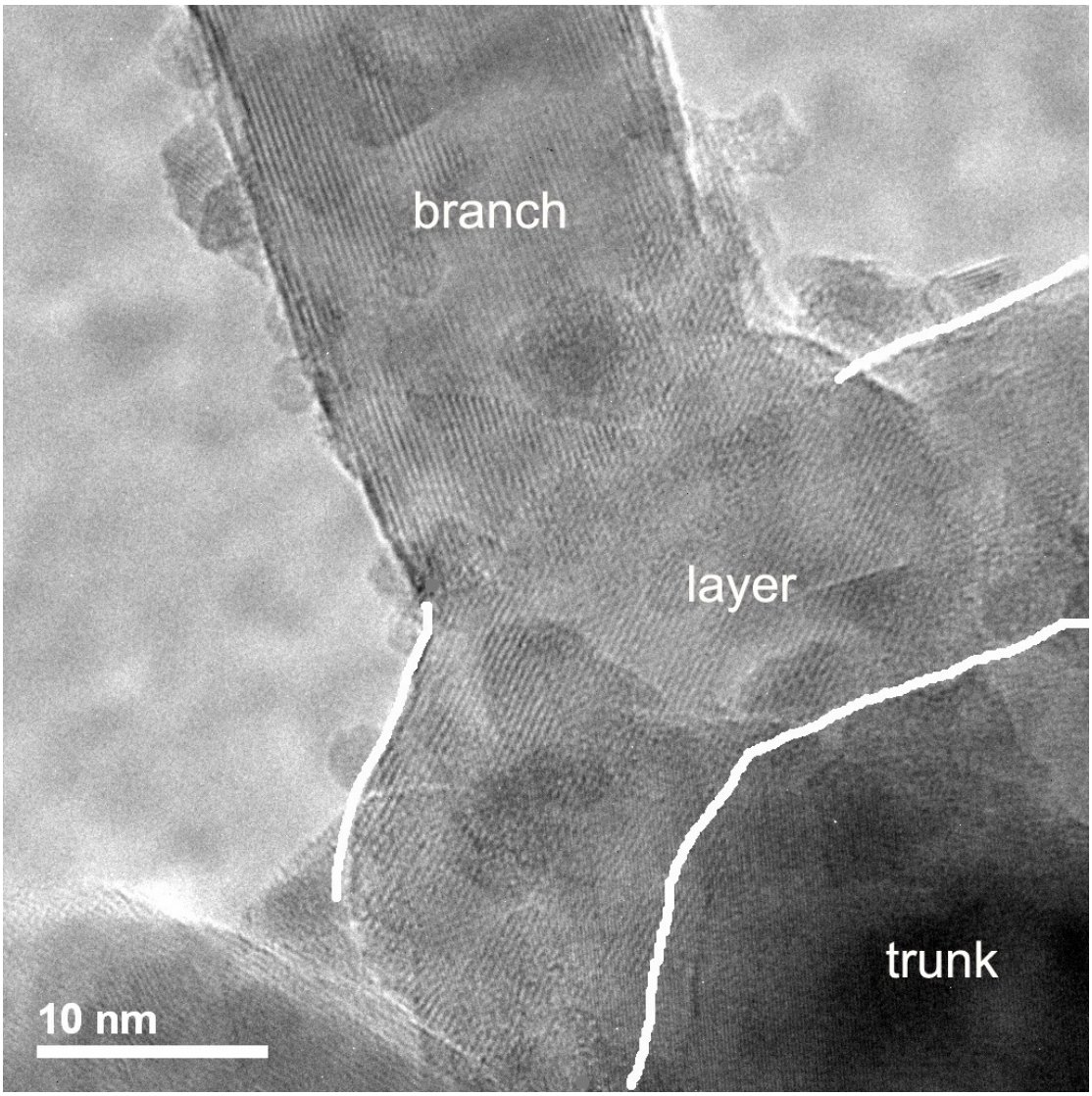

Fig. S3.TEM image of the Fe_2O_3@TiO_2 BNRs.

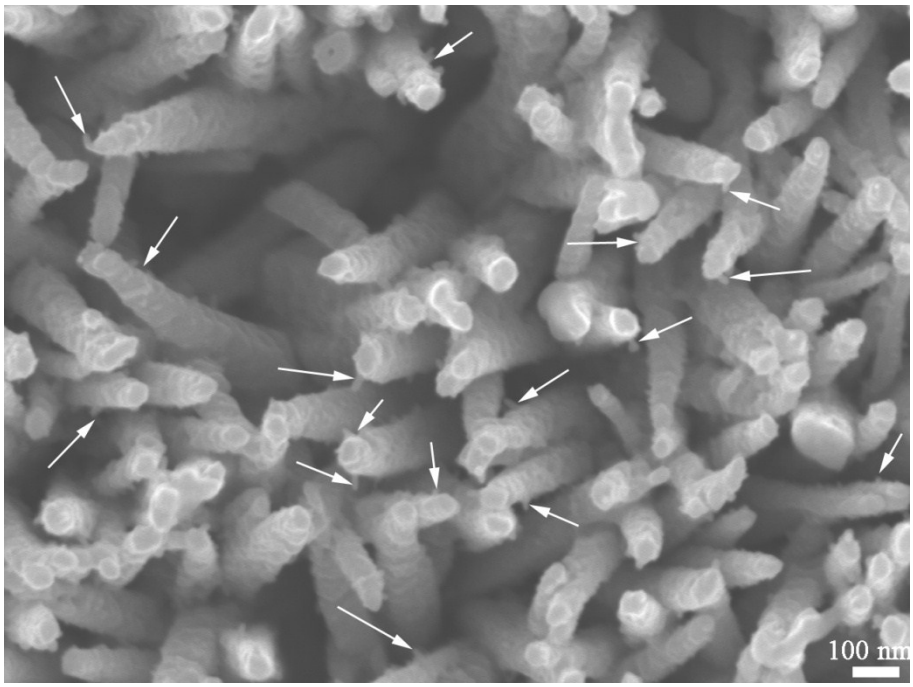

Fig. S4. Enlarged SEM image of the Fe_2O_3@TiO_2 BNRs (some tiny TiO_2 nanorods marked by the white arrows).

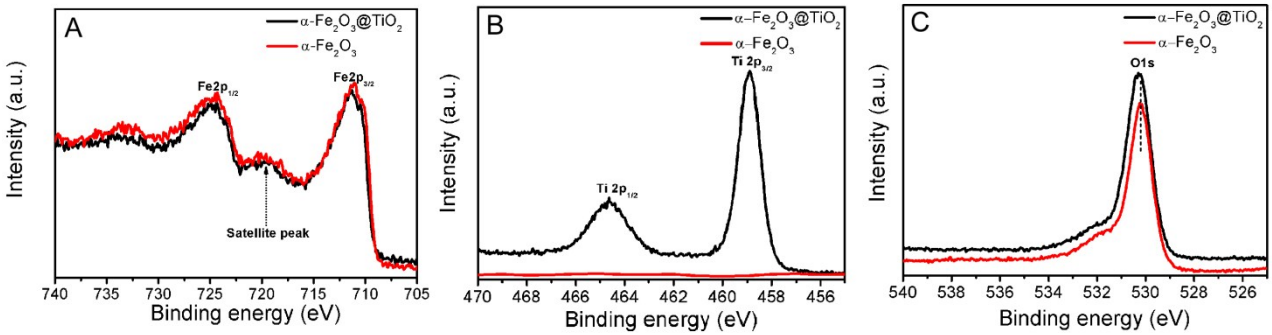

Fig. S5. High-resolution XPS spectrum for Fe (A), Ti (B) and O (C) of the Fe_2O_3@TiO_2 BNRs.

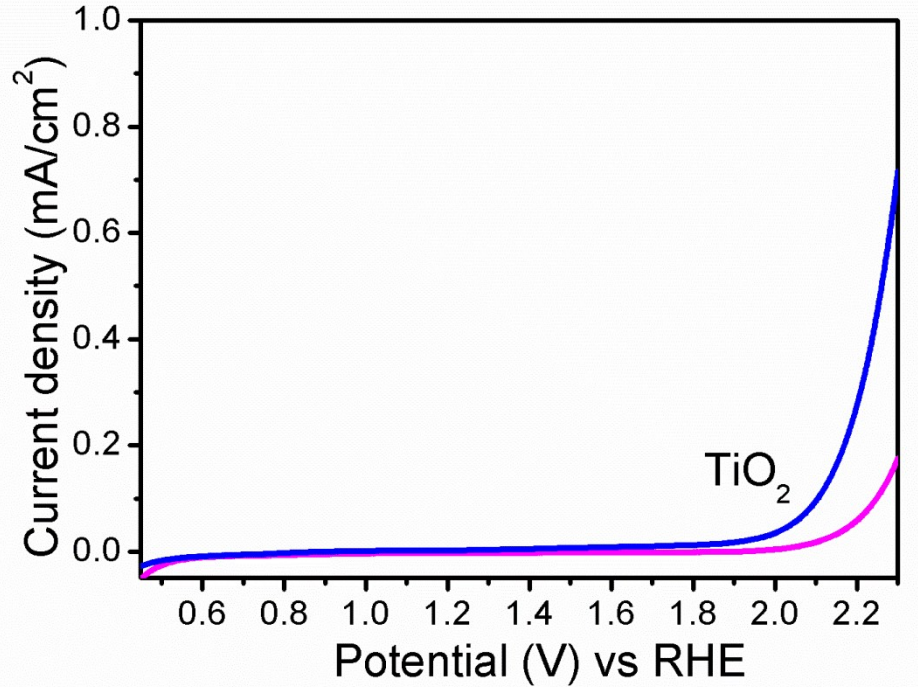

Fig. S6. Photocurrent density-potential curves of pristine TiO_2.

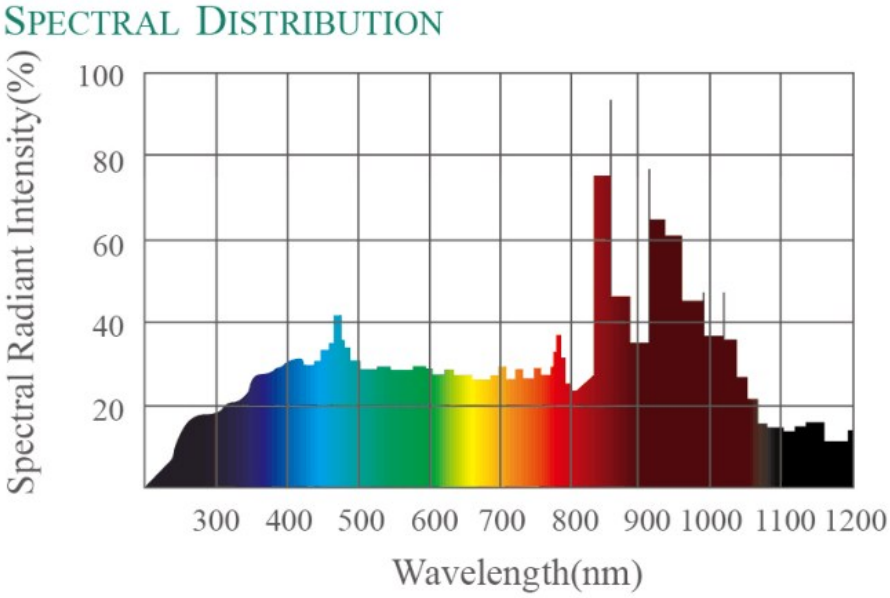

Fig. S7 The spectral distribution of light source.

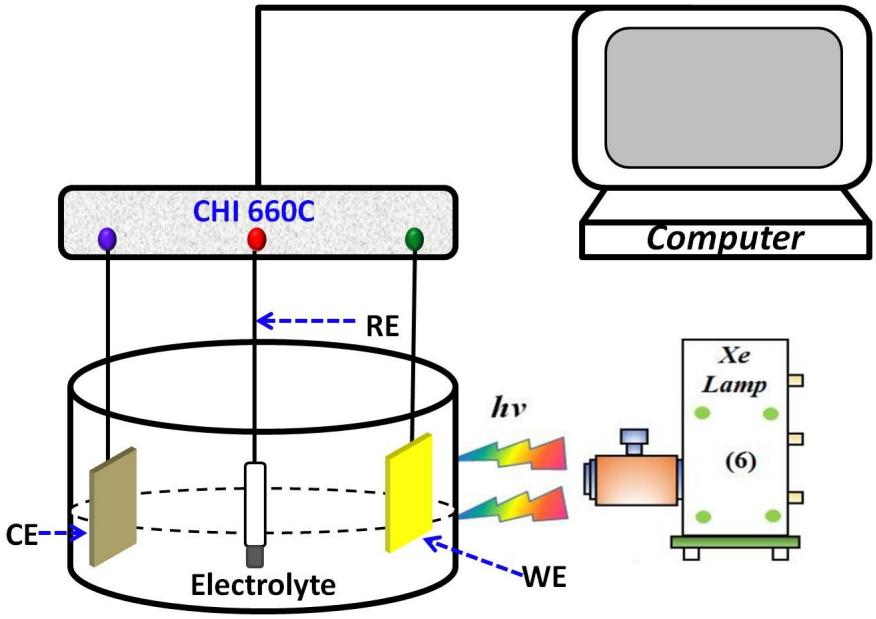

Fig. S8 A Schematic illustration for the geometry and design of PEC reactor.