Defective TiO_2 composite photoanodes with surface-modified prussian blue for efficient photoelectrochemical water splitting

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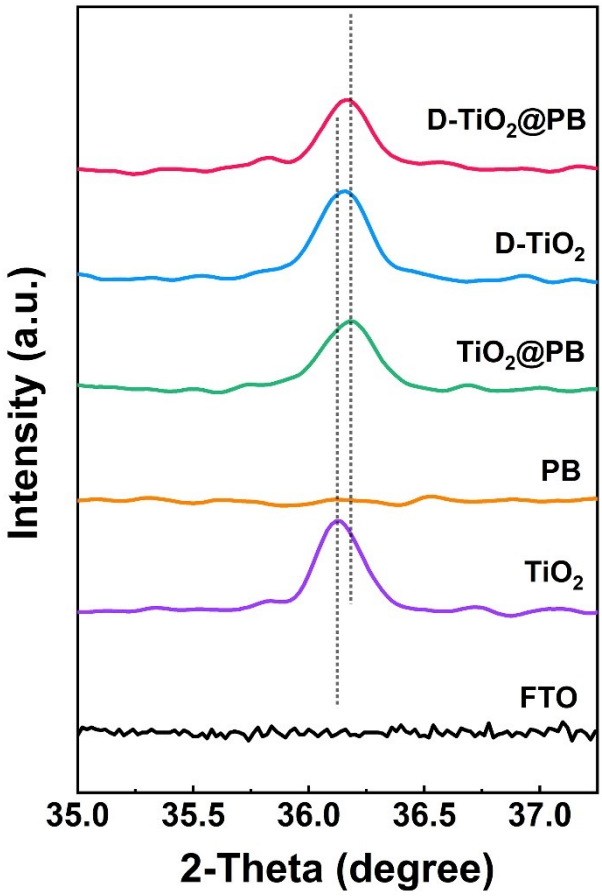

Fig. S1 XRD pattern of different samples in the 2θ range of 35°-40°.

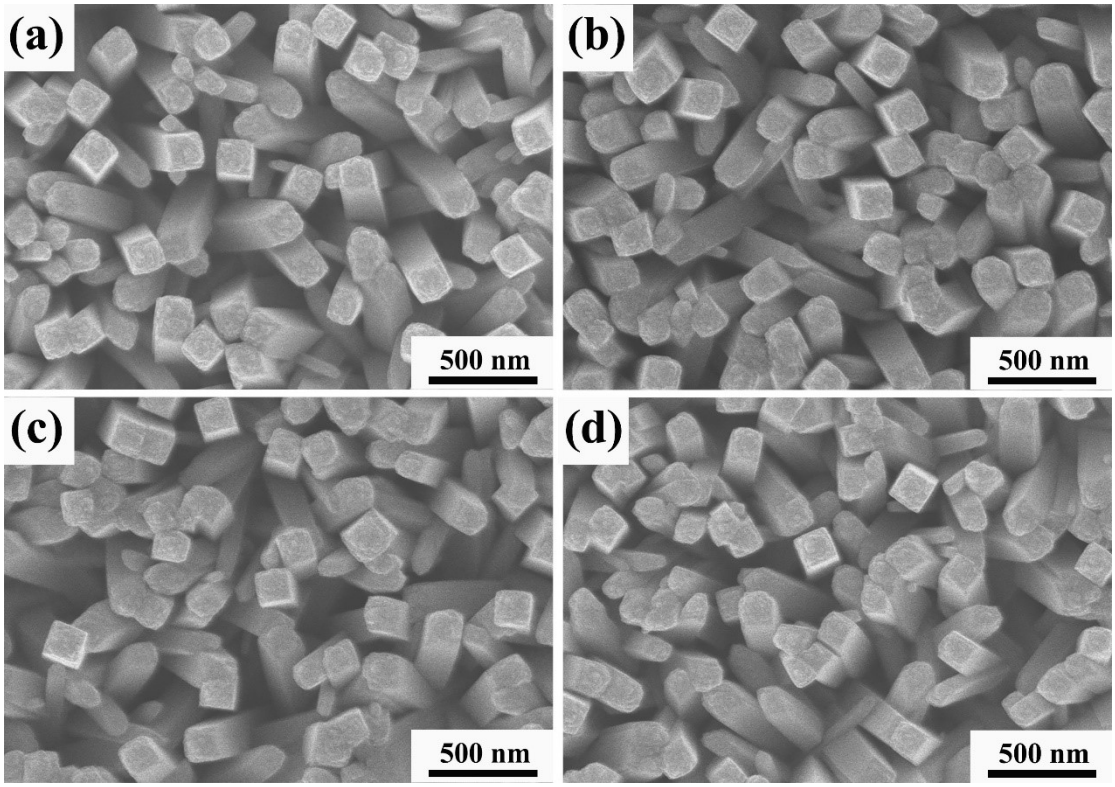

Fig. S2 SEM images of TiO_2 with different electrochemical reduction times:

(a) 2 s, (b) 5 s, (c) 10 s, (d) 15s.

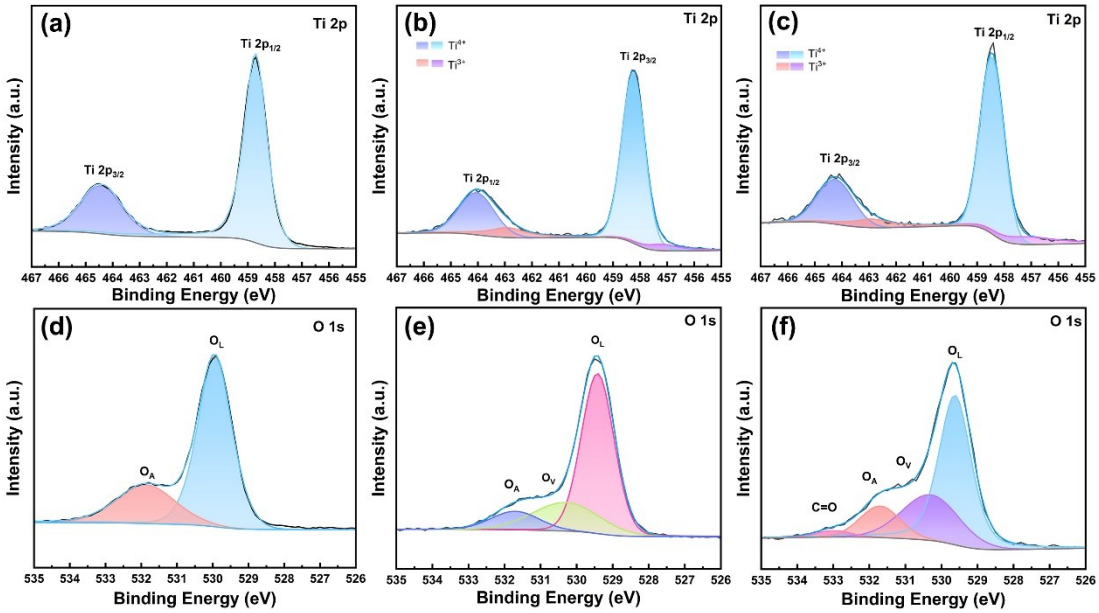

Fig. S3 The XPS spectra for the Ti (a-c), O (d-f) of TiO_2, D-TiO_2 and D-TiO_2@PB.

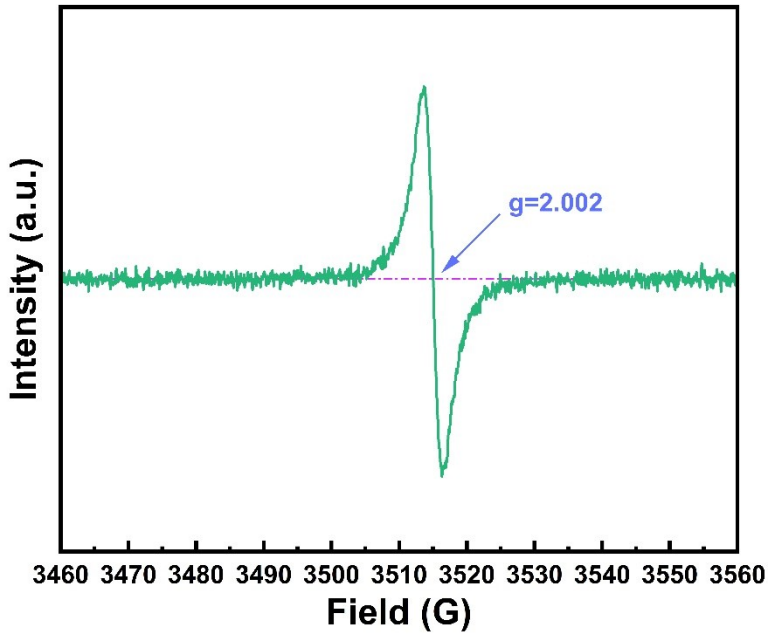

Fig. S4 The EPR spectra of D-TiO_2.

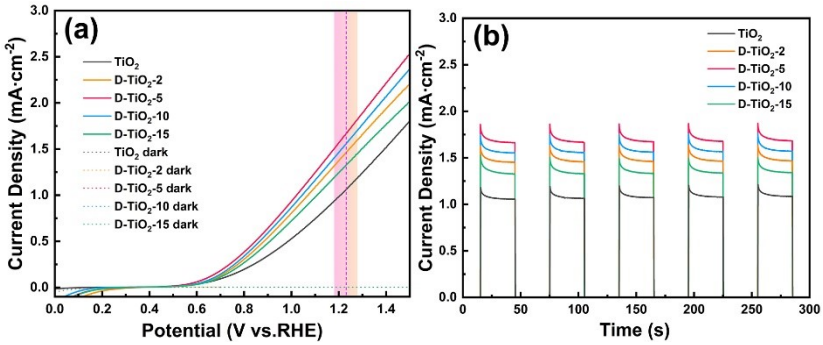

Fig. S5 (a) LSV curves of different photoanodes in the dark (dashed lines) and under full-spectrum light (solid lines). (b) Transient photocurrent response of prepared samples.

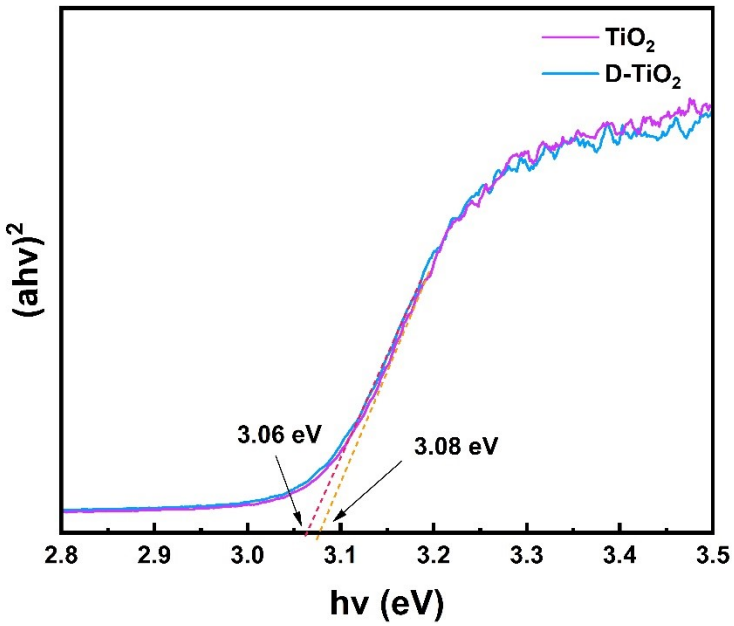

Fig. S6 the Kubelka-Munk function correlating to the TiO_2 and D-TiO_2.

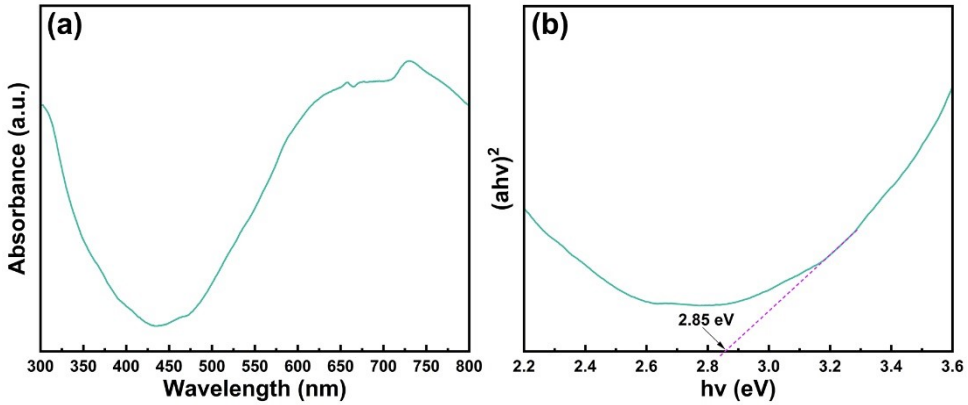

Fig. S7 (a) the UV-vis absorption spectra, and (b) the Kubelka-Munk function correlating to the PB.