

Supporting Information

Enhanced Solar Water-Splitting Activity of Novel Nanostructured Fe₂TiO₅

Photoanode by Surface F-modification

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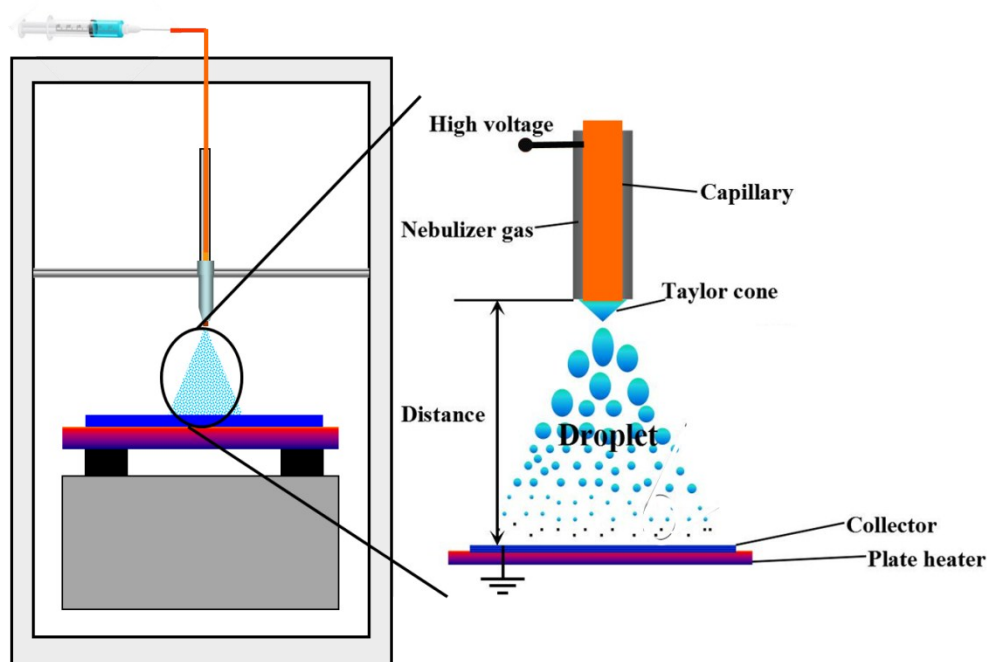


Figure S1 Schematic diagram of the experimental equipment.

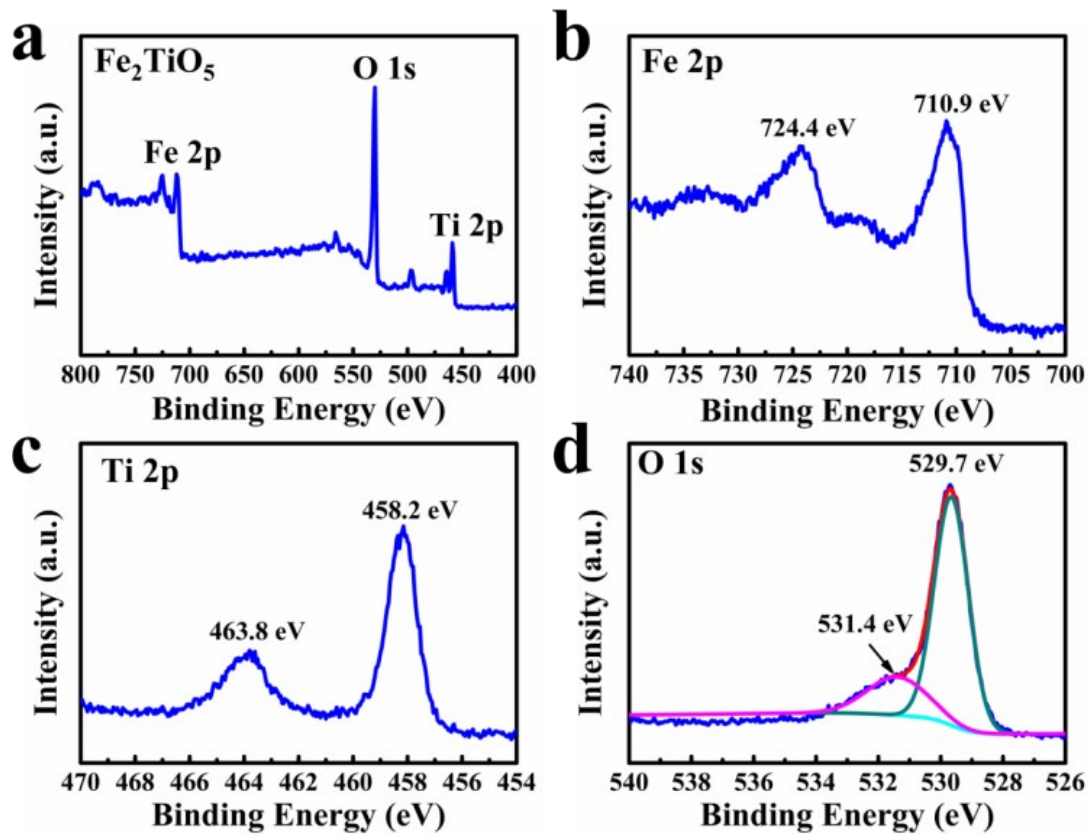


Figure S2 XPS spectra of (a) survey scan, (b) Fe 2p, (c) Ti 2p, (d) O 1s of Fe_2TiO_5 thin film.

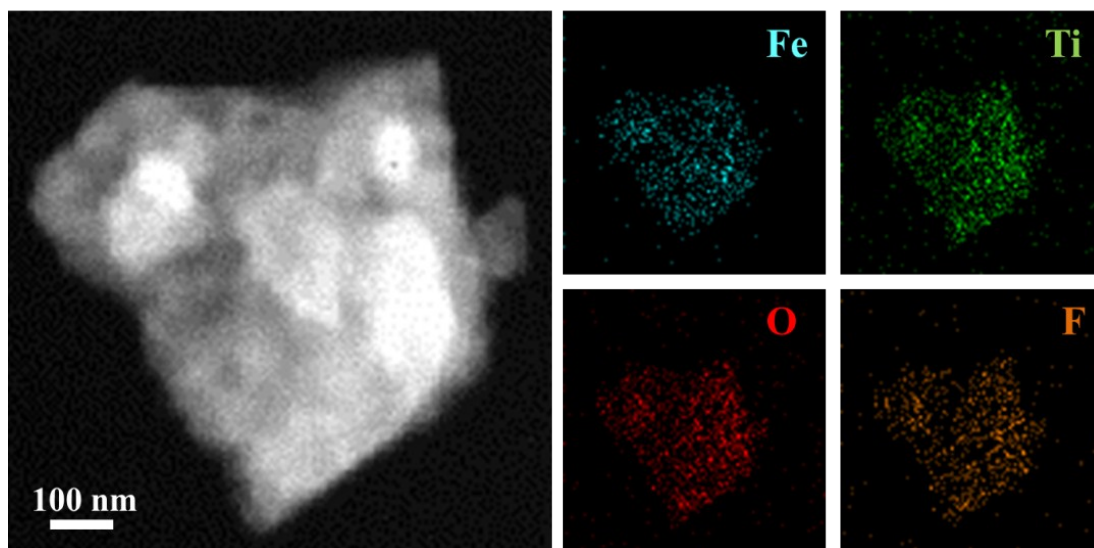


Figure S3 TEM image and element mapping images of F- Fe_2TiO_5 .

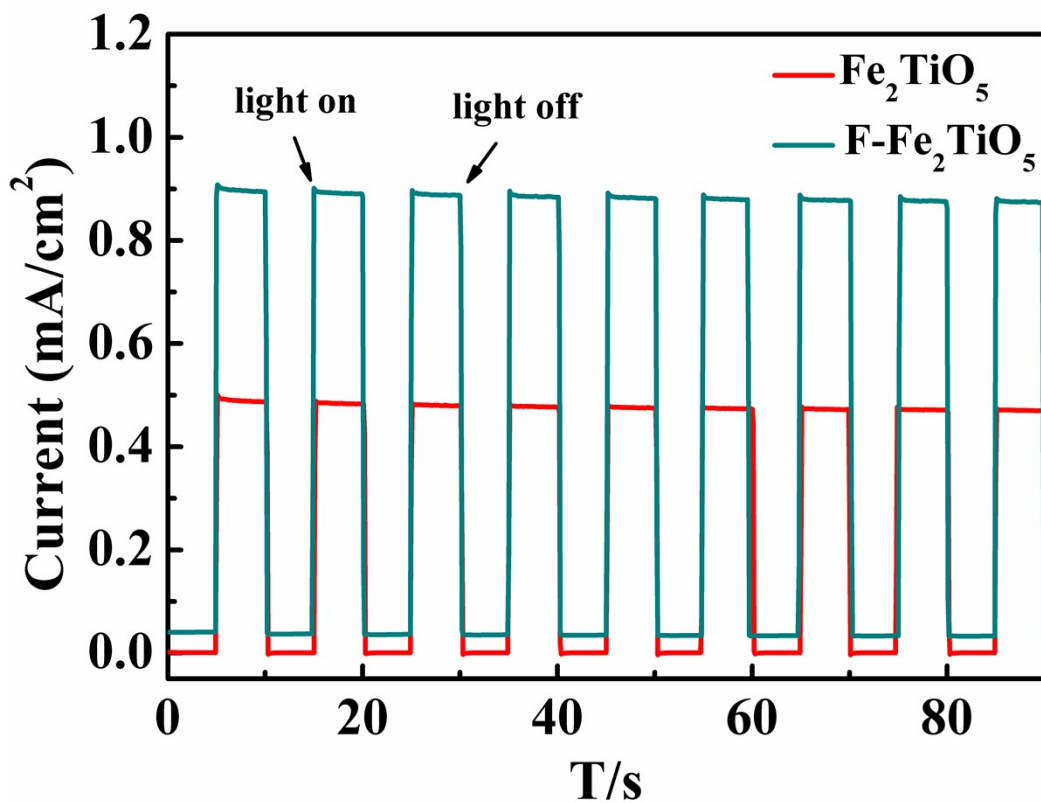


Figure S4 I-t curves of Fe_2TiO_5 and $\text{F-Fe}_2\text{TiO}_5$ photoanodes at 1.7 V vs RHE.

Table S1 EIS simulated results of Fe_2TiO_5 films with various thicknesses.

	R_s	R_{sc}	C_{sc}	R_{ct}	C_H
200 μL	57.19	432.7	6.3882E-6	7030	2.244E-5
300 μL	25.77	352.4	1.0791E-5	4317	3.6717E-5
400 μL	28.53	354.2	1.3271E-4	14312	4.3625E-5
500 μL	19.67	391.8	4.6212E-5	22542	1.6532E-5

Table S2 EIS simulated results of Fe_2TiO_5 and $\text{F-Fe}_2\text{TiO}_5$ films

	R_s	R_{sc}	C_{sc}	R_{ct}	C_H
Fe_2TiO_5	25.77	352.4	1.0791E-5	4317.0	3.6717E-5
$\text{F-Fe}_2\text{TiO}_5$	35.09	325.1	2.8227E-5	797.9	1.9636E-4