

Spatially Controllable Plasmon Enhanced Water Splitting Photocurrent in Au/TiO₂- Fe₂O₃ Cocatalyst System

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Supporting Materials

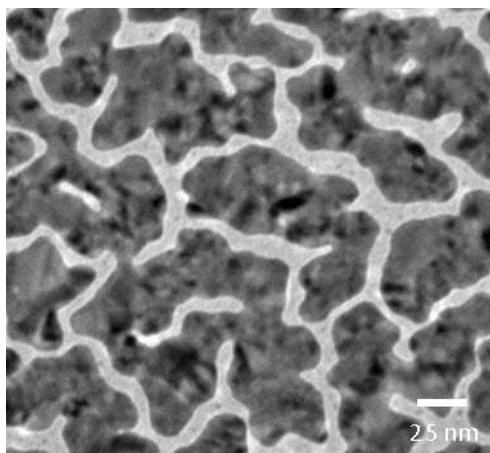


Figure S1. TEM image of island-like Au nanoparticles

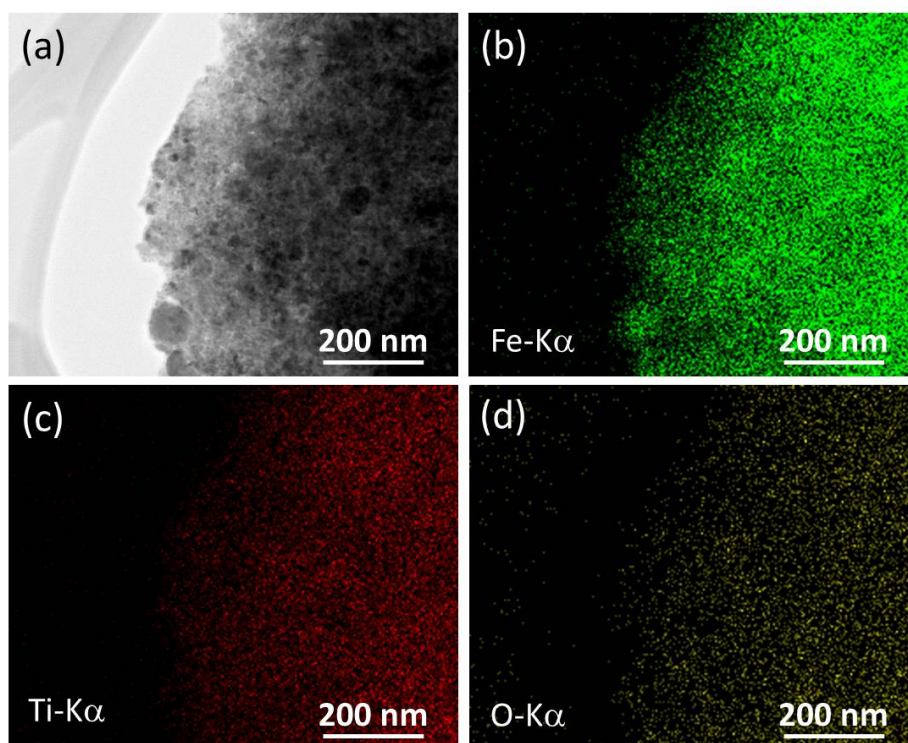


Figure S2. (a) Bright-field STEM image of TiO₂ and Fe₂O₃ mixture. Elemental mapping images show the chemical distributions of (b) Iron (Fe-K α), (c) Titanium (Ti-K α) and (d) Oxygen (O-K α).

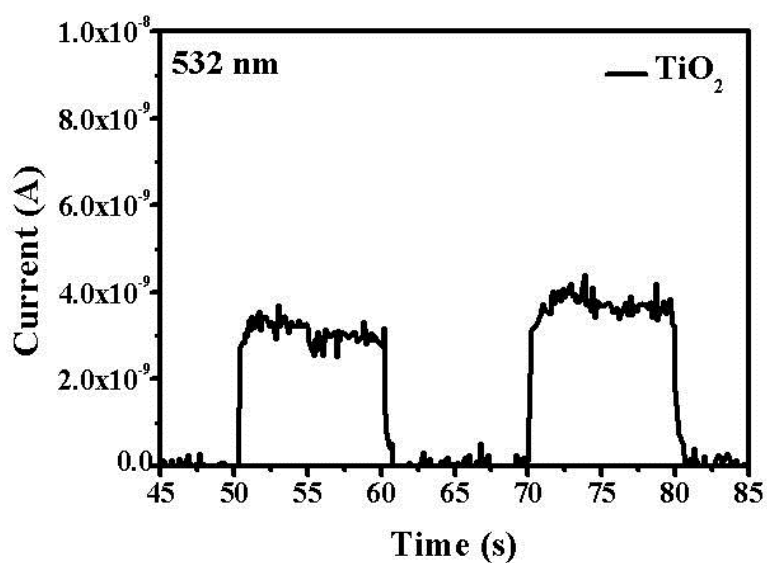


Figure S3. (a) The photocurrent response of TiO_2 only photoelectrode under 532 nm (600 mW)

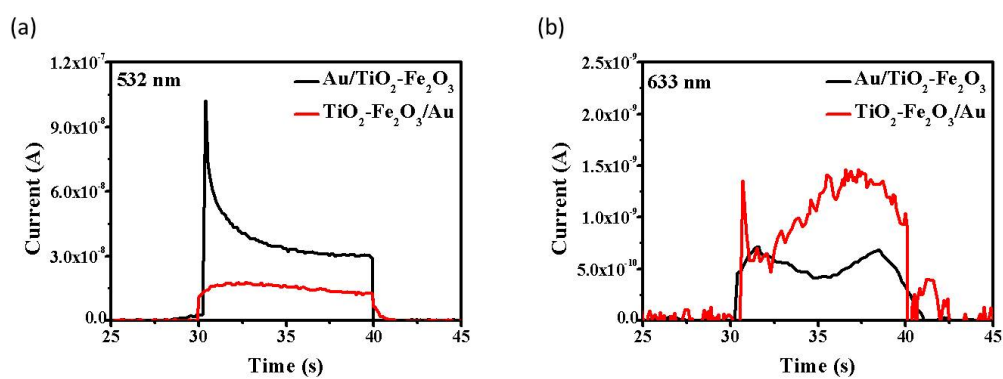


Figure S4. (a) The photocurrent response of $\text{Au/TiO}_2\text{-Fe}_2\text{O}_3$ and $\text{TiO}_2\text{-Fe}_2\text{O}_3/\text{Au}$ under 532 nm (600 mW) (b) and under 633 nm (10 mW) laser irradiation.

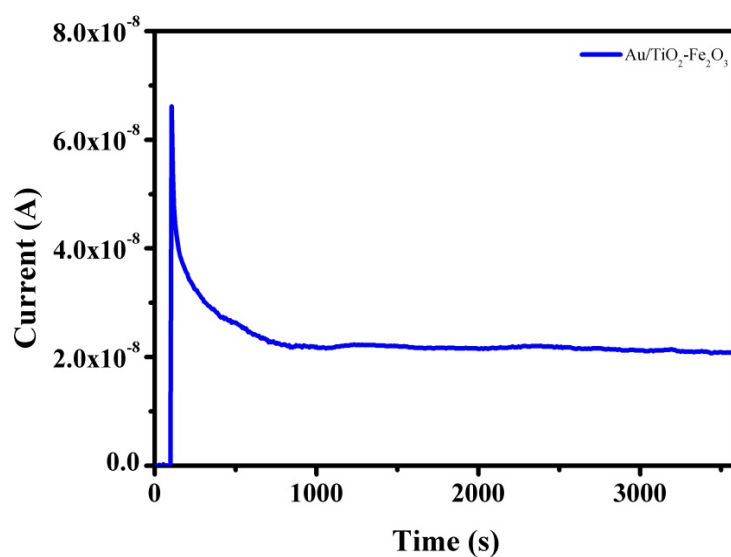


Figure S5. Prolonged Photocurrent measurement of Au/TiO₂-Fe₂O₃ photoelectrode under 532 nm laser irradiation

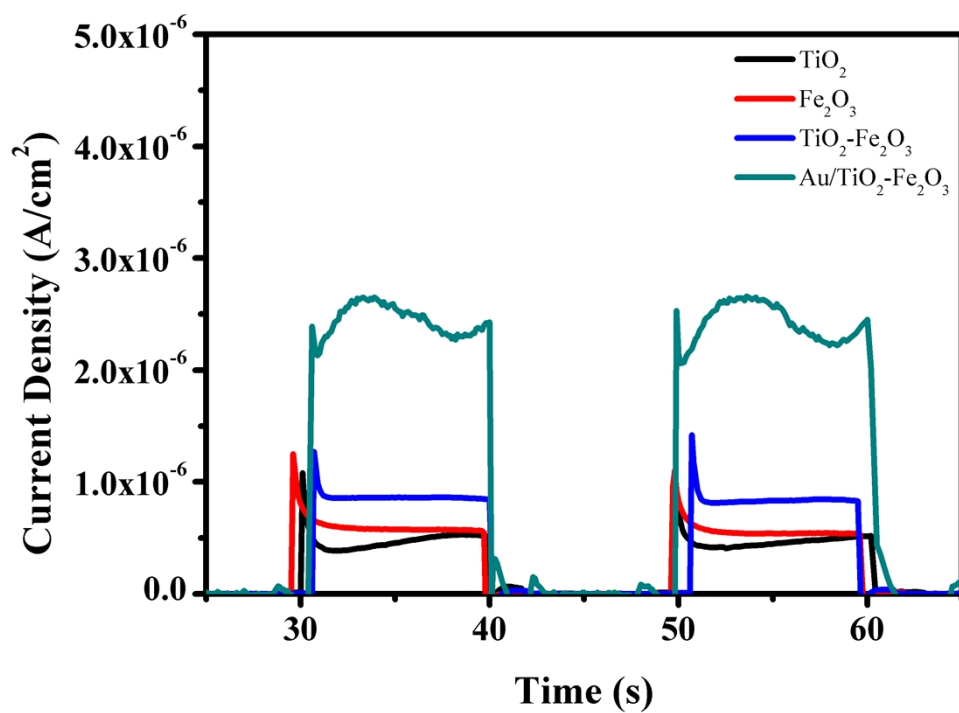


Figure S6. The photocurrent response of different photoelectrodes under simulated sunlight