Supporting Information

for

Dye-sensitized Pt@TiO_2 core–shell nanostructures for the efficient photocatalytic generation of hydrogen

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Additional experimental data

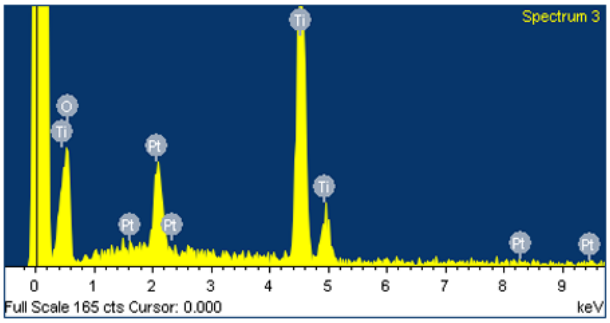

Figure S1: EDX spectrum of Pt@TiO_2 nanoparticles. The quantitative analysis shows that the molar ratio Pt/TiO_2 is 6.7%, which is quite close to the standard value of 5%.

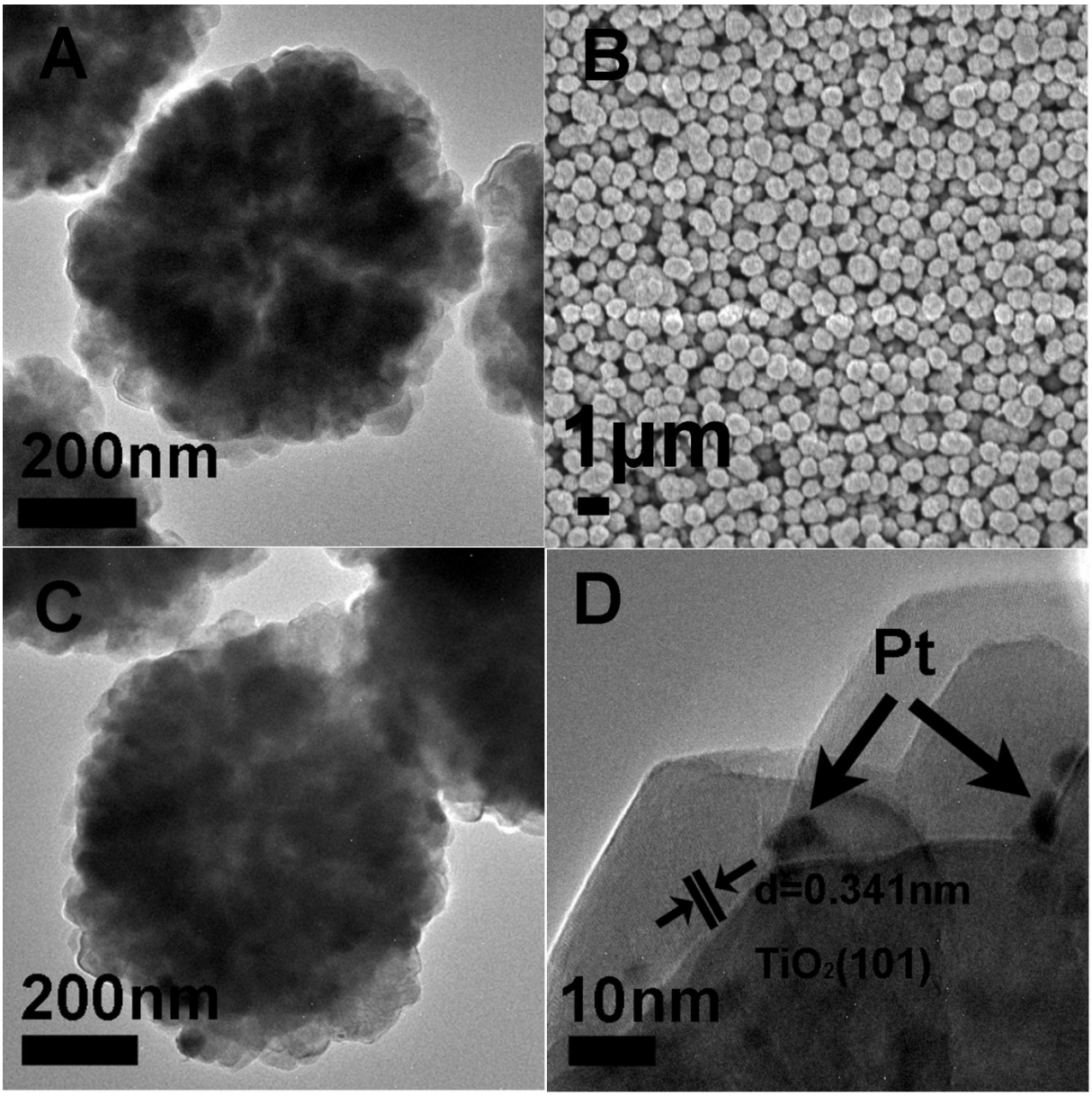

Figure S2: The TEM and SEM images of the Pt/TiO_2 photocatalyst. (A) TEM image of bare TiO_2, (B) SEM image of Pt/TiO_2, (C) TEM image of Pt/TiO_2, (D) HRTEM image of Pt/TiO_2.

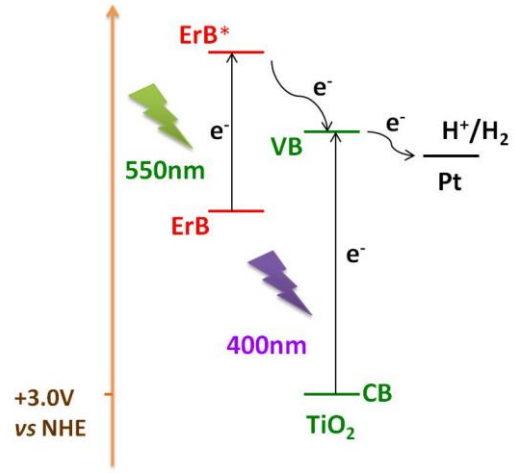

Figure S3: Energy diagram of ErB-sensitized Pt@TiO_2 for the generation of H_2 from proton reduction.

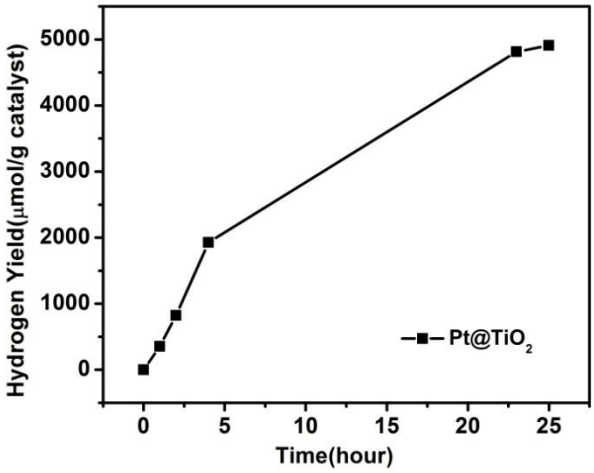

Figure S4: Long term test of H_2 evolution by ErB-Pt@TiO_2 under irradiation at 550 ± 20 nm.