Electronic Supporting Information

CO₂ Photoreduction with H₂O Vapor by Porous MgO/TiO₂ Microspheres: Effects of Surface MgO Dispersion and CO₂ Adsorption/Desorption Dynamics

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Figure S1. SEM images for 5%Mg/Ti-SP and 5%Mg/Ti-WI samples



Figure S2. The UV-vis spectra for TiO₂, Mg/Ti-WI and Mg/Ti-SP samples

Figure S2 shows the UV-vis spectra of TiO_2 , Mg/Ti-SP and Mg/Ti-WI, displayed in absorbance unit. All the Mg/Ti samples had a similar absorption edge around 400 nm, corresponding to a calculated band gap of 3.20 eV similar to bare $TiO_2(P25)$.



Figure S3. In situ DRIFTS spectra of CO_2 and H_2O interaction with MgO, TiO₂, 5%Mg/Ti-WI, and 5%Mg/Ti-SP at 150 °C for 35 min