



Figure S1. IR spectra of ZOTW_{2.5} under CO₂ gas. CO₂ pressure, $p_{\text{CO}_2}/\text{Torr}$: lower, 0; middle, 65; upper, 500. A new peak (2276 cm⁻¹) for adsorbed CO₂ species appeared under CO₂ of 500 Torr. No peak for the adsorbed CO₂ species appeared at 65 Torr, because amount of CO₂ adsorbed was much less than that at 500 Torr, as Figure 5 shows. The small peak of CO₂ gas (2349 cm⁻¹) in the IR spectrum at $p_{\text{CO}_2}/\text{Torr} = 0$ (in vacuum) arises from CO₂ gas in air along the light path in the IR equipment.