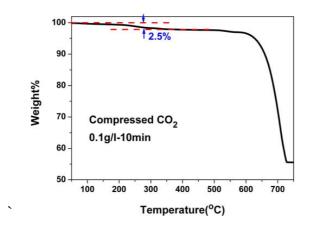
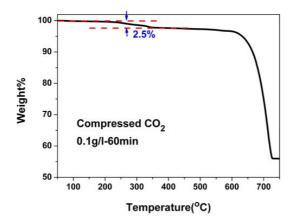
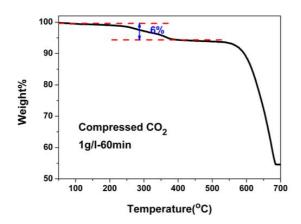
## **Supporting Information**



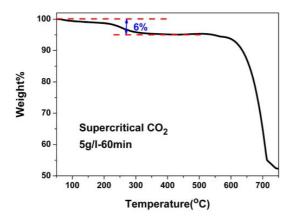
**Figure S1.** TGA curve of CaCO<sub>3</sub> particles obtained under control of 0.1g/l NaCMC after 10min reaction.



**Figure S2.** TGA curve of CaCO<sub>3</sub> particles obtained under control of 0.1g/l NaCMC after 60min reaction.



**Figure S3.** TGA curve of CaCO<sub>3</sub> particles obtained under control of 1g/l NaCMC after 60min reaction.



**Figure S4** TGA curve of CaCO<sub>3</sub> particles obtained under control of 5g/l NaCMC after 60min reaction in scCO<sub>2</sub>.