Supporting Information

Low-temperature conversion of the CaO-Captured CO₂ to CH₄ over the greenly prepared Ni/CaO/Al₂O₃ composite under static pressure conditions

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Fig. S1. The pressure-peak area standard curve of high-purity methane in the TCD channel of a gas chromatograph at room temperature.
Fig. S2. GC curve of gas product (a) and (b) XRD spectrum of composites prepared by high-speed mechanical ball milling reaction.
Fig. S3. N\textsubscript{2} adsorption-desorption curve and pore size distribution diagram (inset) of the CaO/γ-Al\textsubscript{2}O\textsubscript{3} composite.
Fig. S4. SEM images of Ni/CaO/γ-Al₂O₃ after CO₂ capture and hydromethanation at 350 °C.