

Supporting Information

CO₂ capture and conversion to syngas via the dry reforming of C₃H₈ over

Pt/ZrO₂-CaO catalyst

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FIGURE AND TABLE CAPTIONS

Figure S1. N₂ adsorption-desorption isotherm (A), pore size distribution (B) of the fresh Pt/ZrO₂-xCaO catalysts

Figure S2. XRD pattern of Pt/ZrO₂-xCaO after capturing CO₂ at 600 °C for 2 h

Figure S3. The CO₂ carbonation-calcination performance of Pt/ZrO₂-30CaO at different desorption temperatures

Figure S4. The result of CO₂ capture and conversion in Ar over ZrO₂-30CaO
Capture condition: 600 °C, 20% CO₂/N₂/Ar, conversion condition: 600 °C, 5 % C₃H₈
/Ar/N₂, release condition: 700 °C, N₂

Figure S5. The CO₂ carbonation performance of the spent Pt/ZrO₂-xCaO catalysts at 600 °C for 60 min

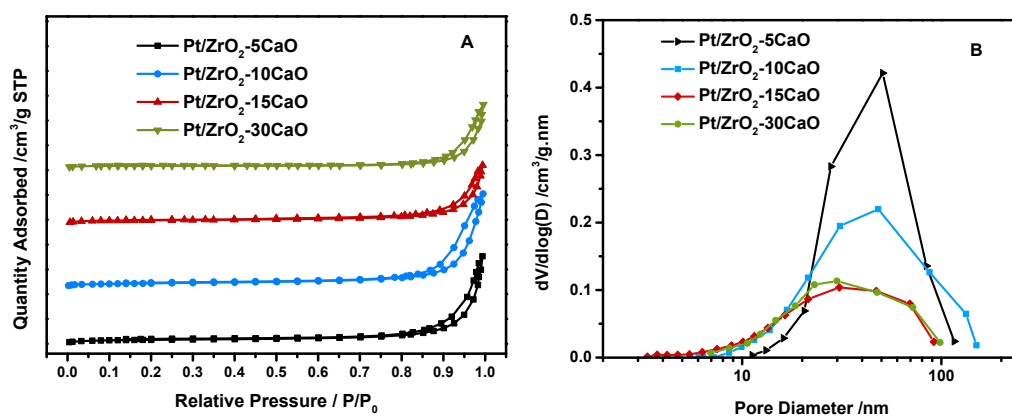


Figure S1. N₂ adsorption-desorption isotherm (A), pore size distribution (B) of the fresh Pt/ZrO₂-xCaO catalysts

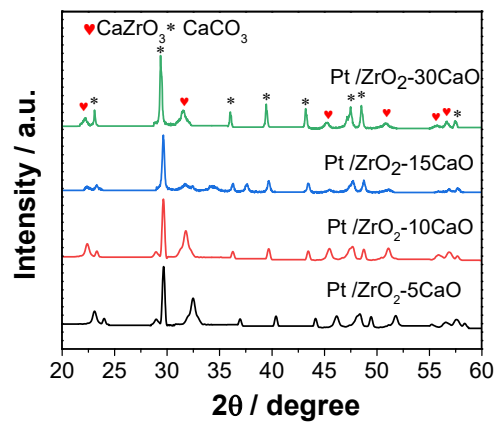


Figure S2. XRD patterns of Pt/ZrO₂-xCaO after capturing CO₂ at 600 °C for 2 h.

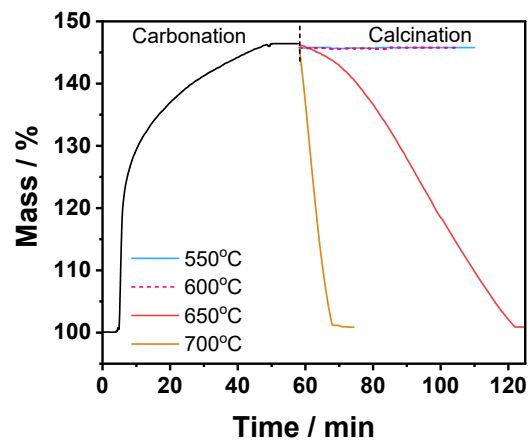


Figure S3. The CO₂ carbonation-calcination performance of Pt/ZrO₂-30CaO at different desorption temperatures

carbonation conditions: 600 °C in 20% CO₂/Ar, calcination condition: 700, 650, 600, 550°C in Ar

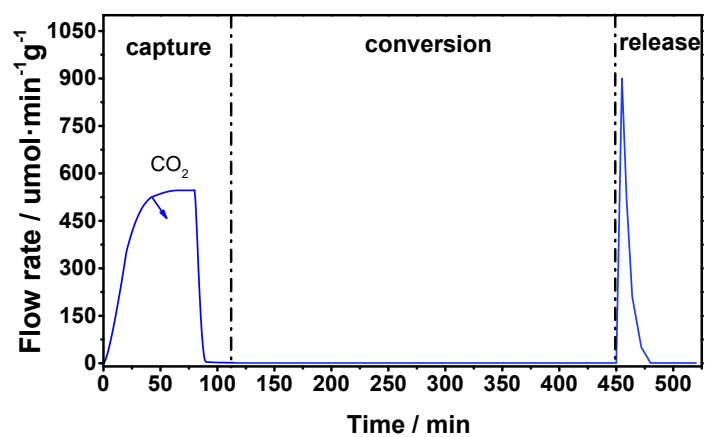


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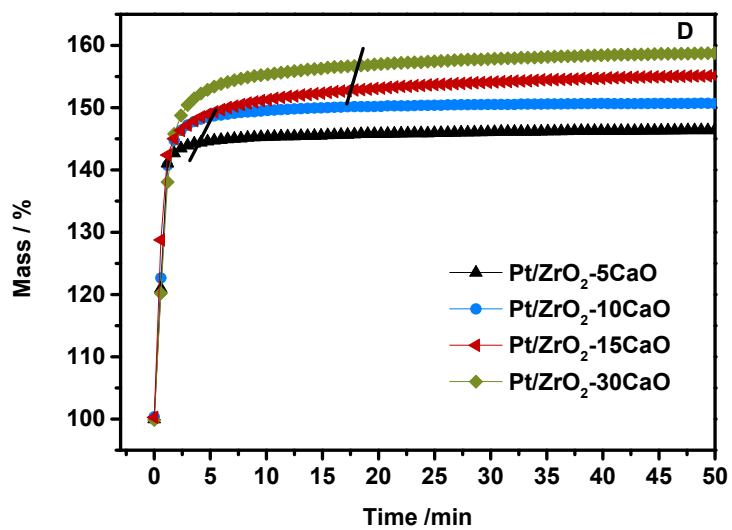


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