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# Hydrotalcite-derived Co/Mg(Al)O as a stable and coke-resistant catalyst for low-temperature carbon dioxide reforming of methane

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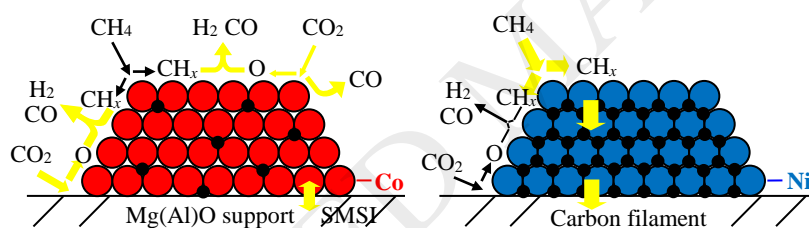
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## Graphic abstract



## Highlights

- ► Co catalyst shows a high and stable activity for CH<sub>4</sub>-CO<sub>2</sub> reforming at 773 K.
- ► Co catalyst shows much higher stability and coke-resistance than Ni catalyst.
- ► Initial coking rate on Co catalyst was about 1/20 times that on Ni catalyst.
- ► Lower activity of Co for CH<sub>4</sub> decomposition contributes to the high coke-resistance.
- ► Higher oxophilicity of Co promotes the CO<sub>2</sub> activation and the carbon elimination.

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