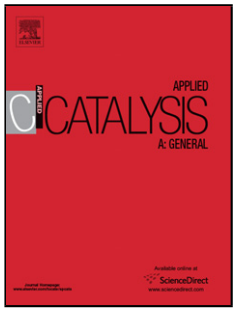

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$LaMnO_3$-based perovskite with in-situ exsolved Ni nanoparticles: a highly active, performance stable and coking resistant catalyst for CO_2 dry reforming of CH_4

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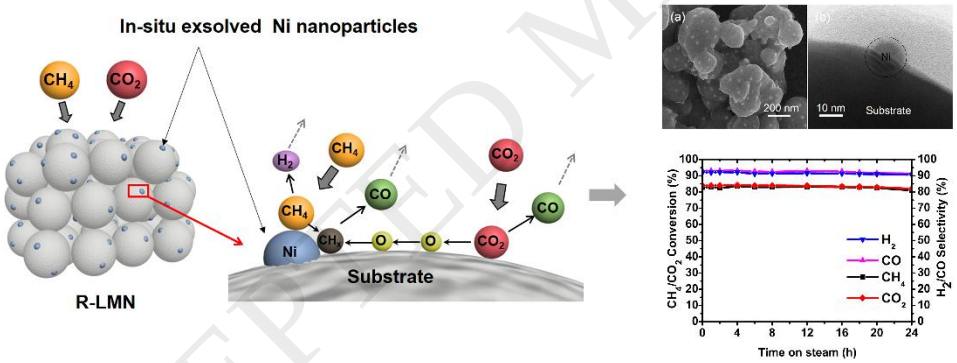
Graphical Abstract



Highlights:

- Ni exsolved R-LMN and Ni impregnated R-NLM catalysts for CO2 dry reforming of CH4 are prepared.
- R-LMN is much more coking resistant with high-efficient and stable conversions than R-NLM.
- The mechanism for coking resistance of R-LMN is discussed in terms of the exsolved nanoparticles and the substrate.

ABSTRACT