

## Accepted Manuscript

Title: LaMnO<sub>3</sub>-based perovskite with in-situ exsolved Ni nanoparticles: a highly active, performance stable and coking resistant catalyst for CO<sub>2</sub> dry reforming of CH<sub>4</sub>

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PII: S0926-860X(18)30370-3  
DOI: <https://doi.org/10.1016/j.apcata.2018.07.031>  
Reference: APCATA 16757

To appear in: *Applied Catalysis A: General*

Received date: 27-4-2018  
Revised date: 18-7-2018  
Accepted date: 24-7-2018

Please cite this article as: Wei T, Jia L, Zheng H, Chi B, Pu J, Li J, LaMnO<sub>3</sub>-based perovskite with in-situ exsolved Ni nanoparticles: a highly active, performance stable and coking resistant catalyst for CO<sub>2</sub> dry reforming of CH<sub>4</sub>, *Applied Catalysis A, General* (2018), <https://doi.org/10.1016/j.apcata.2018.07.031>

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**LaMnO<sub>3</sub>-based perovskite with in-situ exsolved Ni nanoparticles: a highly active, performance stable and coking resistant catalyst for CO<sub>2</sub> dry reforming of CH<sub>4</sub>**

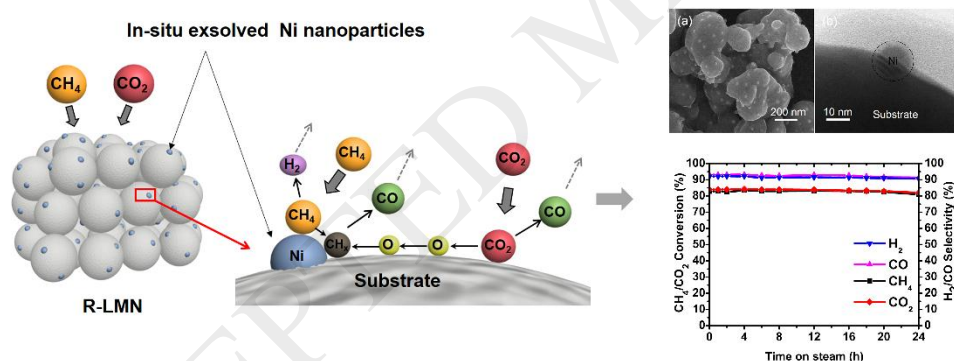
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Graphical Abstract



Highlights:

- Ni exsolved R-LMN and Ni impregnated R-NLM catalysts for CO<sub>2</sub> dry reforming of CH<sub>4</sub> 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**

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