

Supplementary Information

Methanol steam reforming catalysts derived by reduction of perovskite-type oxides $\text{LaCo}_{1-x-y}\text{Pd}_x\text{Zn}_y\text{O}_{3\pm\delta}$

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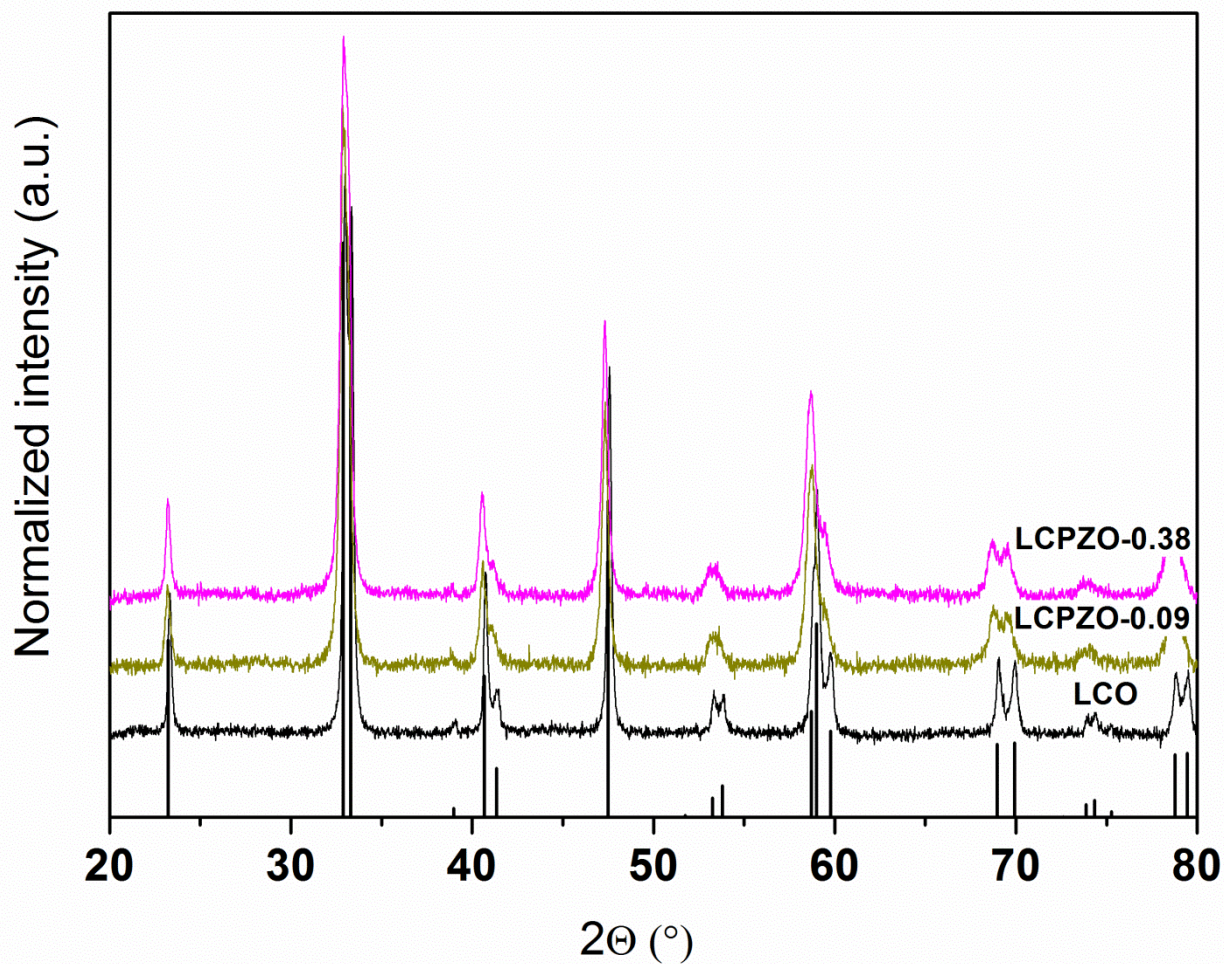


Fig. S1. XRD patterns of the catalysts recorded at ambient atmosphere. The reference perovskite-type oxide rhombohedral crystal structure is shown in line pattern.

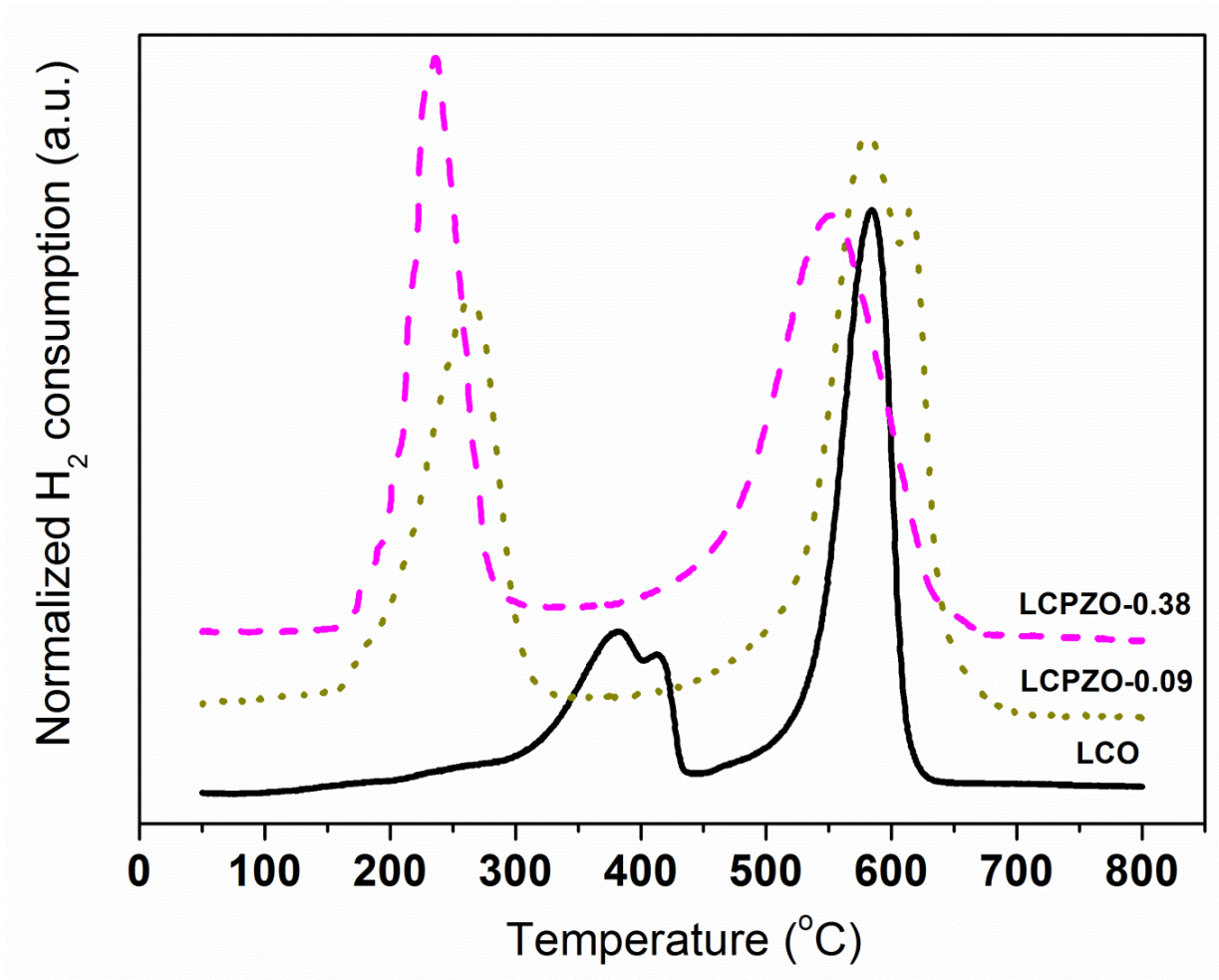


Fig. S2. H₂-TPR profiles of the catalysts.

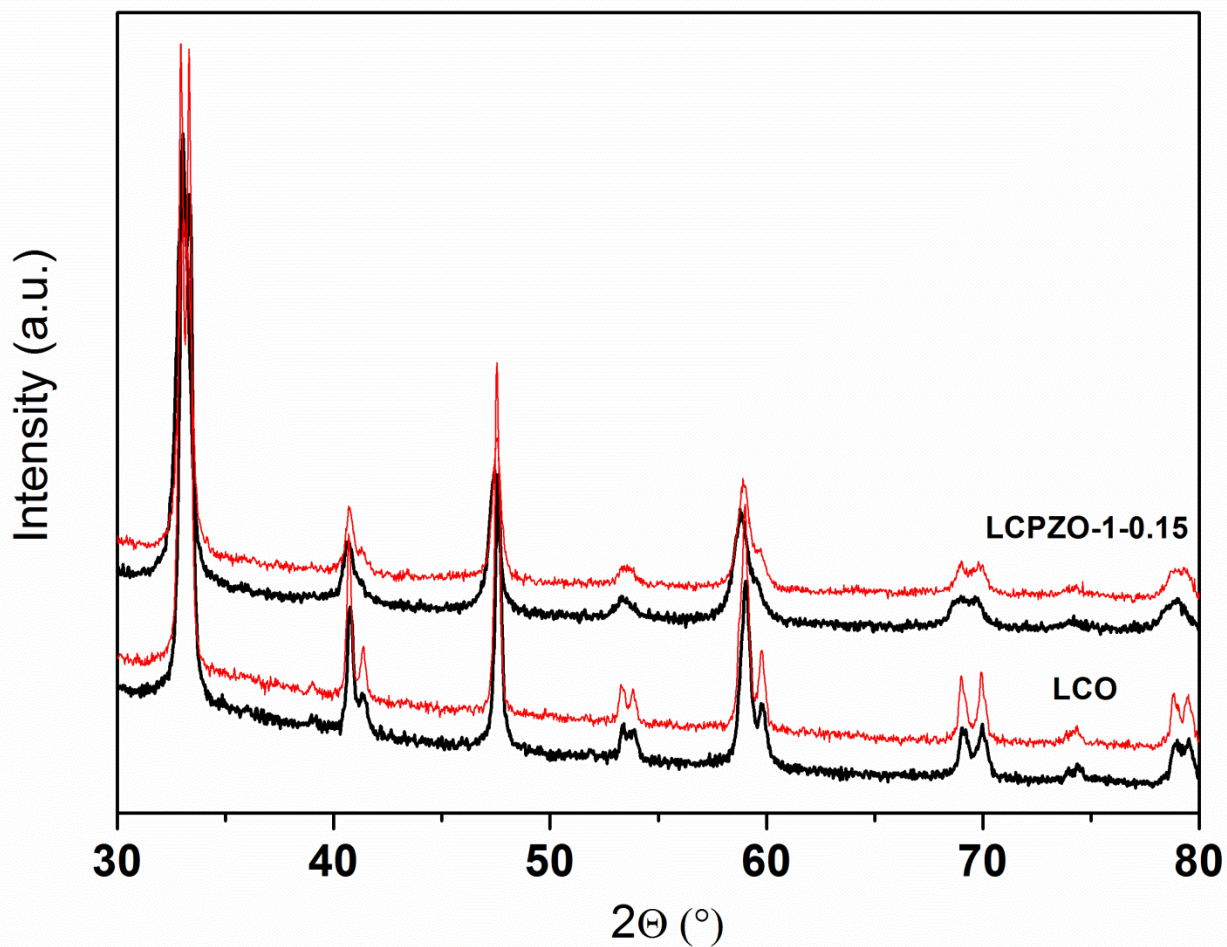


Fig. S3. XRD patterns of the catalysts recorded at room temperature before being subjected to TPR (below – black thick pattern) and after reduction/re-oxidation cycle (above – red thin pattern).

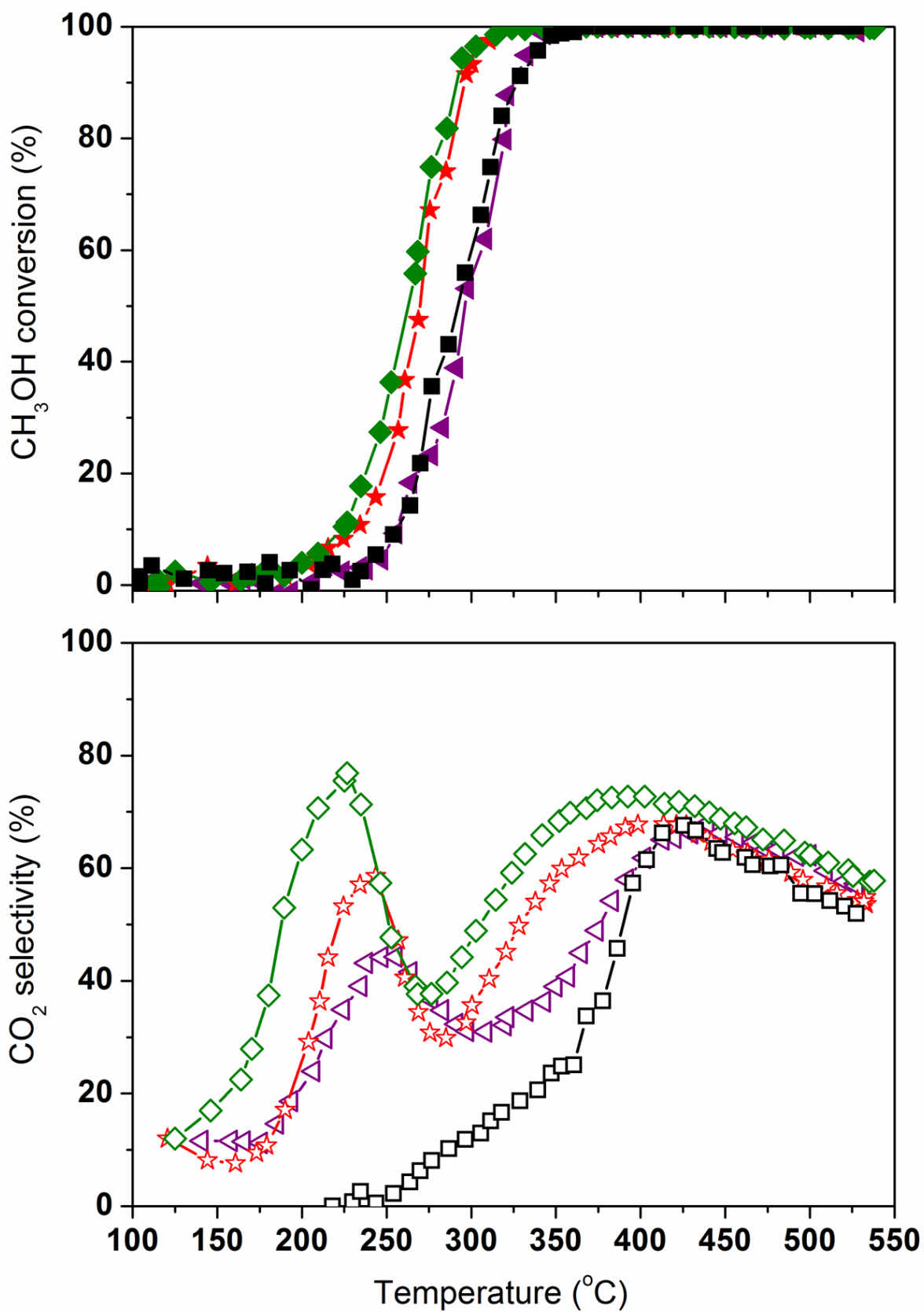


Fig. S4. The effect of Pd and Zn concentration (at 1:1 molar ratio) on the MSR performance of the catalysts: LCO (■, □), LCPZO-1-0.05 (▼, ▽), LCPZO-1-0.15 (★, ☆) and LCPZO-1-0.25 (◆, ◇).