

A Fibrous Perovskite Nanomaterial with Exsolved Ni-Cu Metal nanoparticles as an Effective Composite Catalyst for External Steam Reforming of Liquid Alcohols

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Supporting Figures

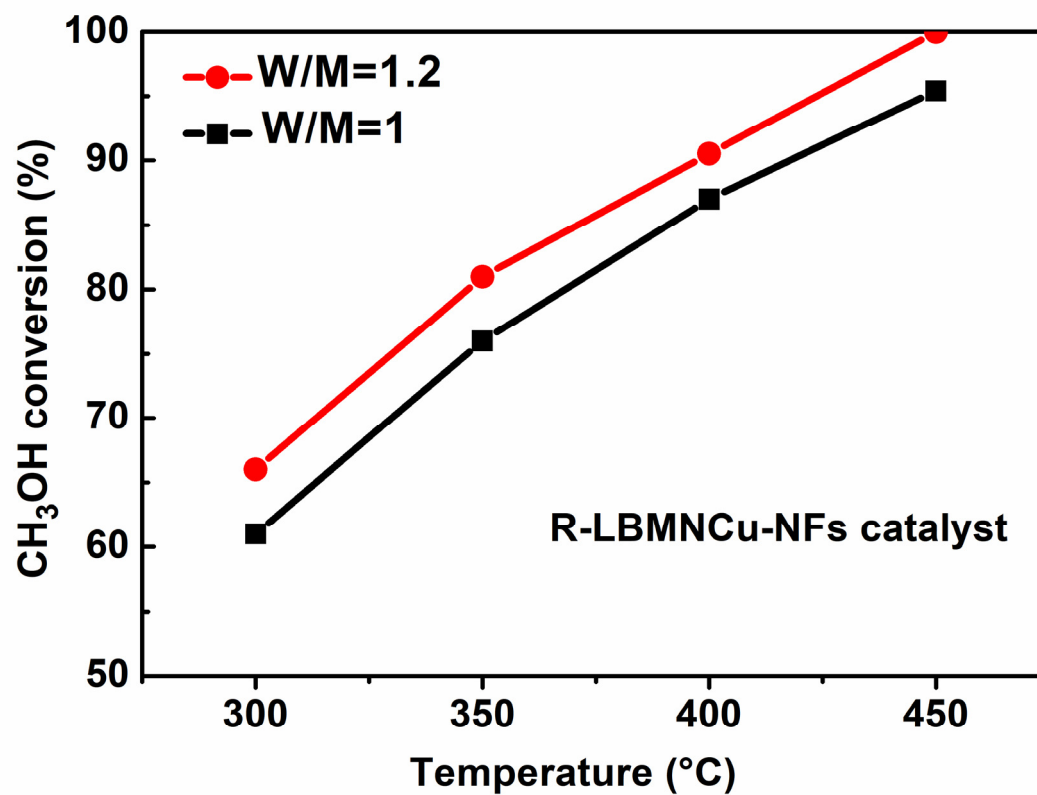


Figure S1. CH₃OH conversion vs temperature and W/M ratio for MSR reaction in the Re-LBMNCu-NFs catalyst system.

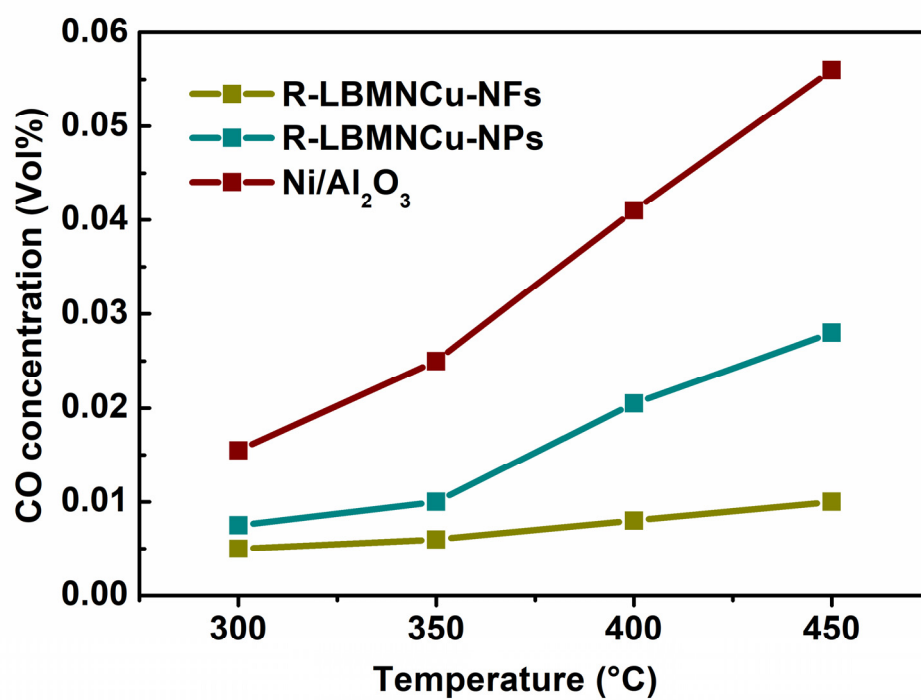


Figure S2. The profiles of CO molar concentration in the gaseous products of MSR as a function of the reforming temperature with 1.2 W/M ratio for R-LBMNCu-NFs, R-LBMNCu-NFs and Ni-Cu/Al₂O₃ catalysts catalysts.

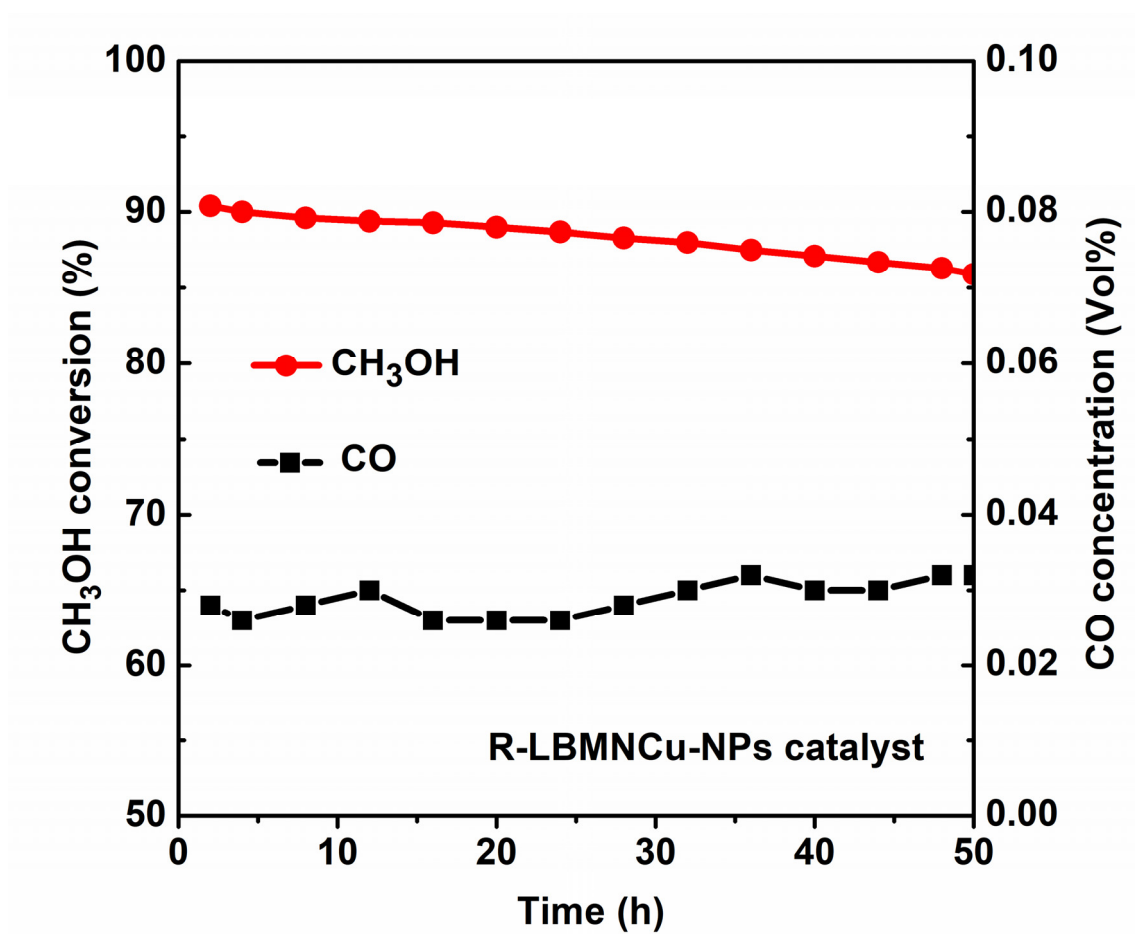


Figure S3. CH₃OH conversion and CO molar concentration of R-LBMNCu-NPs catalysts vs time on stream for MSR reaction at 450 °C with a W/M ratio of 1.2.

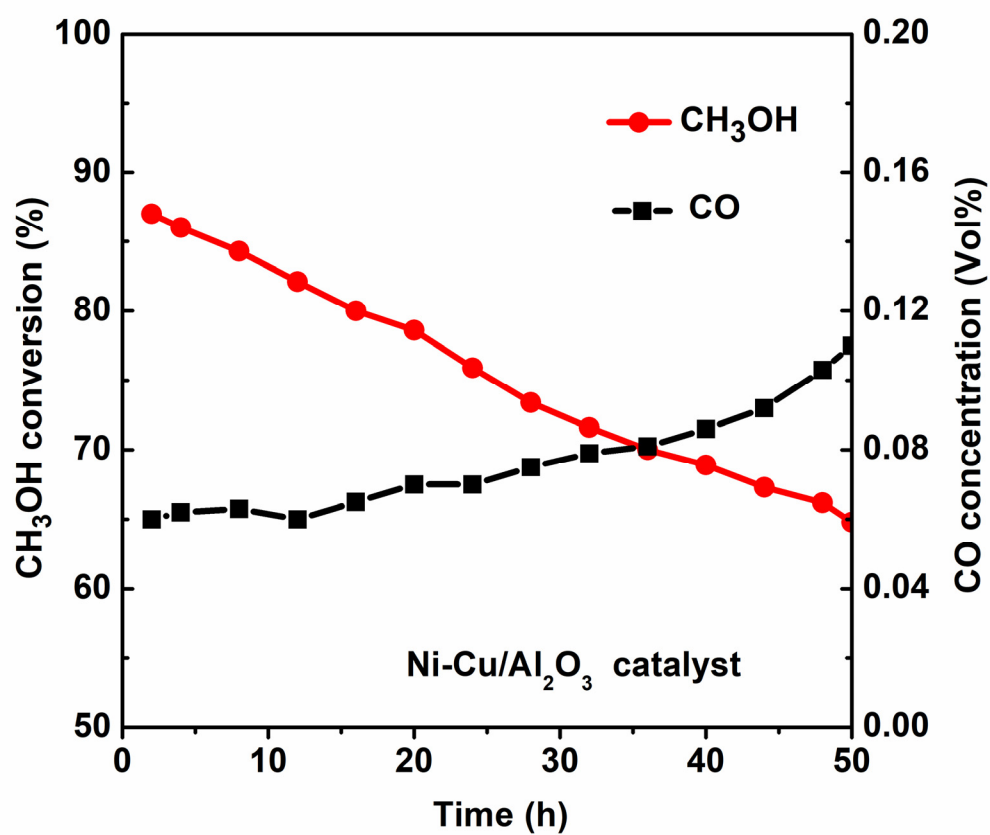


Figure S4. CH₃OH conversion and CO molar concentration of Ni-Cu/Al₂O₃ catalysts vs time on stream for MSR reaction at 450 °C with a W/M ratio of 1.2.

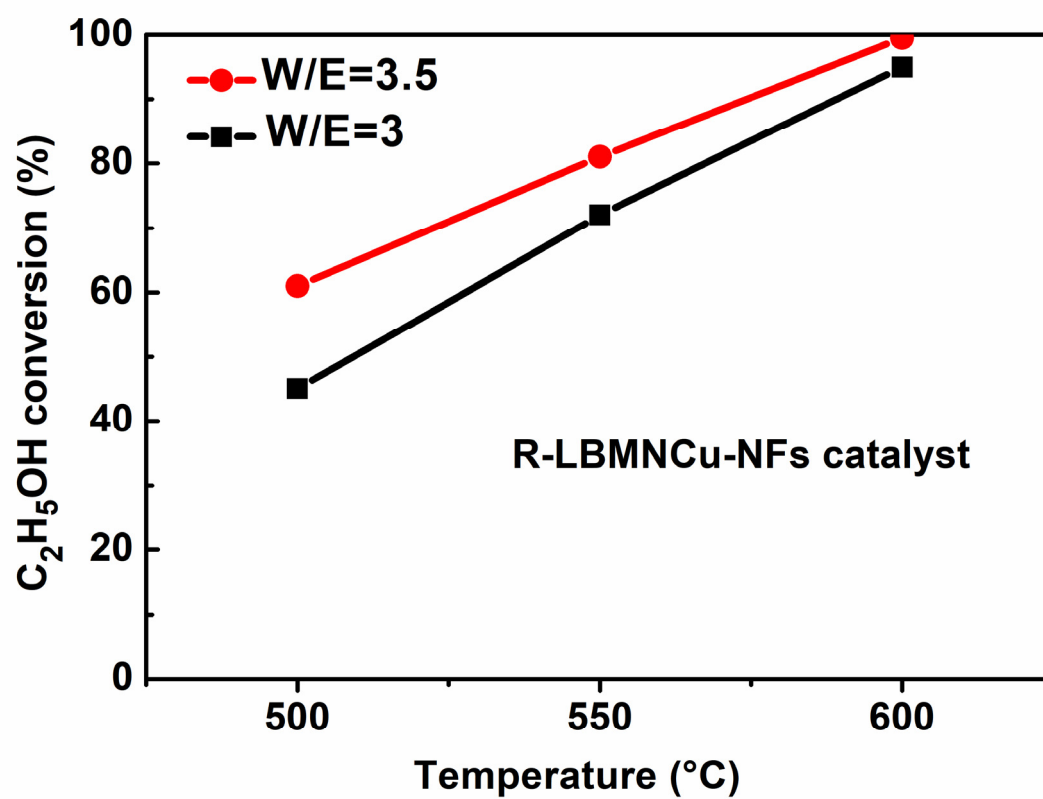


Figure S5. C_2H_5OH conversion vs temperature and W/E ratio for ESR reaction in the R-LBMNCu-NFs catalyst system.

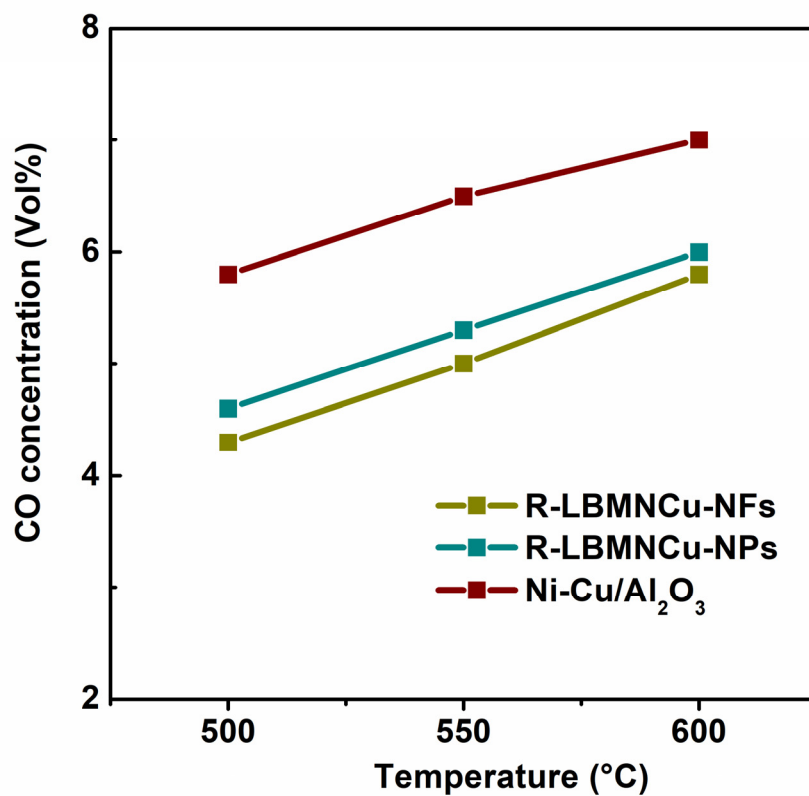


Figure S6. The profiles of CO molar concentration in the gaseous products of ESR as a function of the reforming temperature with 3.5 W/E ratio for R-LBMNCu-NFs, R-LBMNCu-NFs and Ni-Cu/Al₂O₃ catalysts catalysts.

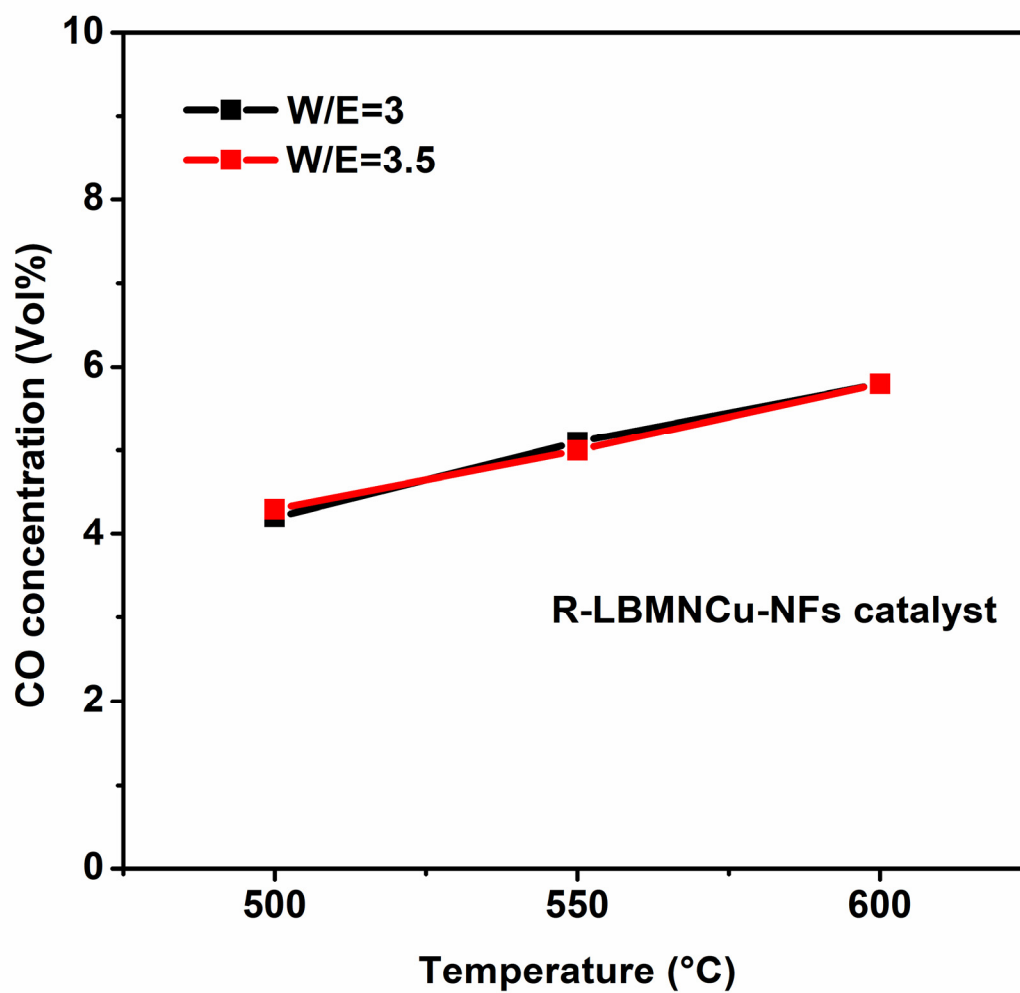


Figure S7. The profiles of CO molar concentration in the gaseous products as a function of the W/E ratio for ESR reaction in the R-LBMNCu-NFs catalyst system.

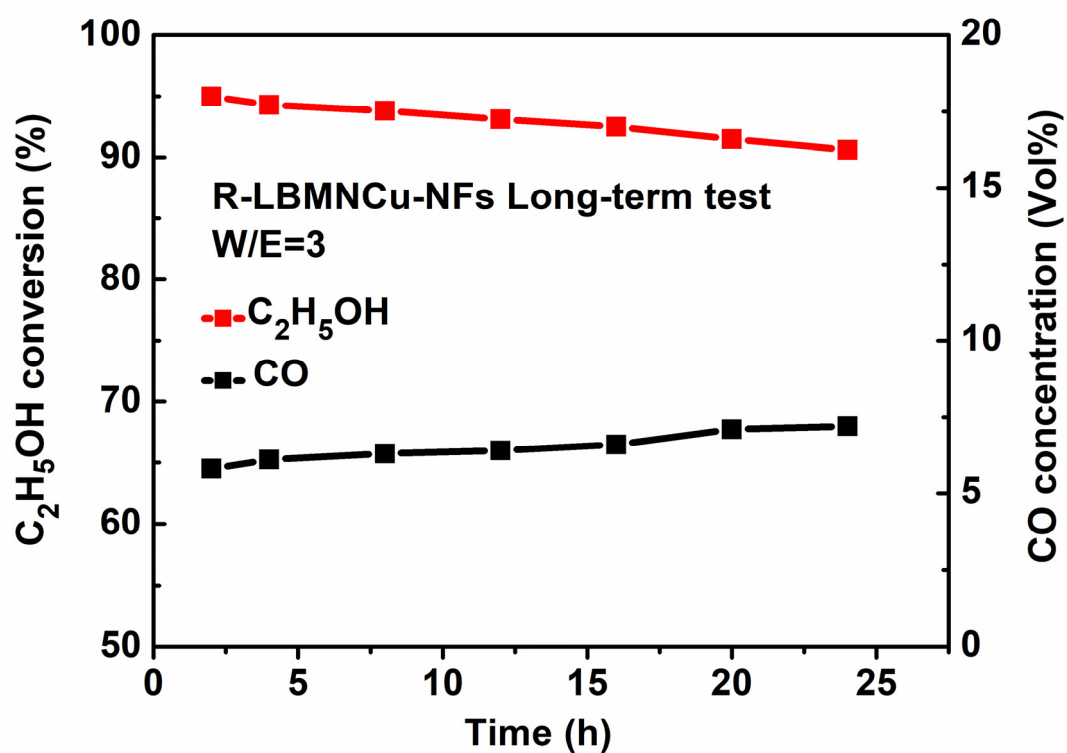


Figure S8. The profiles of C_2H_5OH conversion and CO molar concentration during long term ESR test for R-LBMNCu-NFs catalyst at 600 °C a W/E ratio of 3.