Reforming of n-hexadecane for hydrogen production over catalysts derived from $LaMO_3$

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Fuel cell requires hydrogen as the fuel source for generating power. Hydrogen can be produced in a fuel processor by the catalytic reforming of hydrocarbons. Diesel, gasoline, as well as natural gas, are potential fuels that all have existing infrastructure of manufacture and distribution, for hydrogen production for fuel cell applications. In this study, catalysts derived from perovskite type oxides LaMO₃ (M=Co, Ni, Fe, Cu, Cr) synthesized by a modified citrate sol-gel method were tested in the autothermal reforming of n-hexadecane, a main constituent of diesel, for hydrogen production.