Dry reforming of methane catalyzed by LSFN$_x$ nanoparticles

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La$_{1-x}$Sr$_x$Fe$_{0.7}$Ni$_{0.3}$O$_{3-\delta}$ denoted LSFN$_x$ are nanoparticles synthesized by sol – gel hydrothermal method. They are good catalysts via their structural, morphological and porosity characteristics. In this paper we introduce XRD, SEM, TEM, XPS and BET to characterize these compounds and study their order of efficiency in dry reforming of methane.