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Combustion synthesis of LaNi0.6Fe0.4O3 perovskite
as cathode contact material for IT-SOFCs

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Abstract

This is a sample text: Perovskite sample of composition LaNi0.6Fe0.4O3 has been prepared by the glycinenitrate route using different amounts of glycine fuel (G/N= 0.5, 1.0 and 1.5), in order to study the sample preparation influence on the structural, morphological and electrical properties in the context of their possible use as cathode contact material for intermediate temperature solid oxide fuel cells (IT-SOFCs). The obtained materials have been characterized by X-ray diffraction (XRD), scanning electron microscopy (SEM), thermal expansion coefficient (TEC) and electrical conductivity measurements. X-ray powder diffraction (XRD) shows that all of the compounds have rhombohedral symmetry (space group: R-3c). All of the samples obtained using different amounts of glycine fuel have a porous microstructure with fine grain sizes.

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