
In this work, nanostructured (La_{0.6}Sr_{0.4})_{0.99}CoO_{3} (LSC)-Co_{0.8}Gd_{0.2}O_{1.9} (CGO) core-shell particles were prepared by precipitating CGO nanoparticles on the surface of LSC particles under hydrothermal conditions. The as-prepared core-shell particles were sintered by spark plasma sintering (SPS) and conventional sintering, and the microstructure evolution and densification behavior were studied. Dense microstructures were reached using both sintering methods at relatively low temperatures. In the case of SPS, the core-shell architecture was partially maintained and nano-structured CGO grains were formed, while conventional sintering led to the formation of larger CGO grains. This work covers a detailed characterization of (a) the individual LSC-CGO core-shell particles and (b) the composites after densification.

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