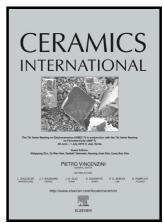
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I.O. Troyanchuk, M.V. Bushinsky, D.V. Karpinsky, V.V. Sikolenko, S.A. Gavrilov, M.V. Silibin, A. Franz, C. Ritter



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ACCEPTED MANUSCRIPT

Magnetic and magnetotransport properties of La_{1-x}Sr_xMn_{0.5}Co_{0.5}O₃ perovskites

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Abstract

 $La_{1-x}Sr_xMn_{0.5}Co_{0.5}O_3$ (x \leq 0.75) perovskites have been studied as a function of

temperature by neutron powder diffraction (NPD), magnetization and

magnetoresistance measurements. The NPD data show that x=0.15 and 0.5 compounds

are stoichiometric, so the Sr²⁺ doping transforms Co²⁺ ions into the Co³⁺ ones, whereas

manganese ions remain in the 4+ oxidation state as in the parent ferromagnetic

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