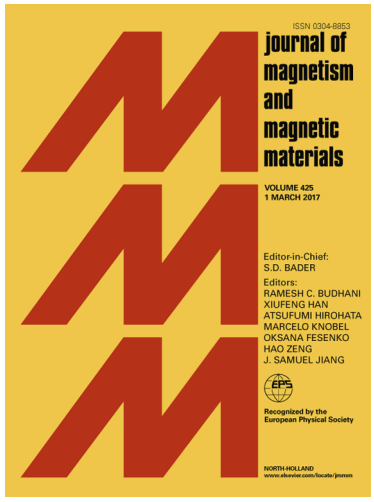

Magnetic and Magnetocaloric Properties in Polycrystalline $La_{0.2}Gd_{0.5}Ba_{0.3}MnO_3$ Compound

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Magnetic and Magnetocaloric Properties in Polycrystalline $La_{0.2}Gd_{0.5}Ba_{0.3}MnO_3$ Compound

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The detail magnetic measurements of the polycrystalline $La_{0.2}Gd_{0.5}Ba_{0.3}MnO_3$ (LGBMO) compound have been presented in this manuscript. The compound shows high value of magnetocaloric effect (MCE) (- ΔS = 9.1 J/kg-K at 12 K) at low temperature. The experimental results of magnetization and magnetic memory effect confirm the existence of glassy magnetic phase in the compound at the low temperature (T < 35 K). The rejuvenation study further substantiates the presence of glassy phase. This high value of MCE in the LGBMO compound has been addressed by the presence of the glassy phase.

Keywords: Magnetization, memory effect, Magnetocaloric Effect

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