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Magnetic and Magnetocaloric Properties in Polycrystalline $\text{La}_{0.2}\text{Gd}_{0.5}\text{Ba}_{0.3}\text{MnO}_3$ Compound

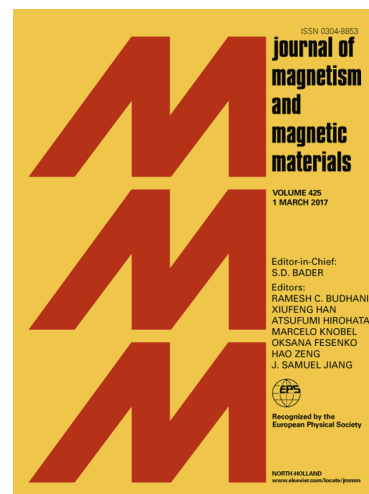
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La_{0.2}Gd_{0.5}Ba_{0.3}MnO₃ Compound

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The detail magnetic measurements of the polycrystalline La_{0.2}Gd_{0.5}Ba_{0.3}MnO₃ (LGBMO) compound have been presented in this manuscript. The compound shows high value of magnetocaloric effect (MCE) ($-\Delta S = 9.1$ 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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