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Phase separation in paramagnetic $\text{Eu}_{0.6}\text{La}_{0.4-x}\text{Sr}_x\text{MnO}_3$

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Abstract

We investigate the magnetic properties of the system $\text{Eu}_{0.6}\text{La}_{0.4-x}\text{Sr}_x\text{MnO}_3$ with $0.1 \leq x \leq 0.3$ by means of magnetic susceptibility and electron spin resonance measurements. Ferromagnetic resonance signals are observed in the paramagnetic regime from above the magnetic ordering temperature T_N up to approximately room temperature. This regime is characterized by the coexistence of ferromagnetic entities within the globally paramagnetic phase. The results are compared to the Griffiths scenario reported in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$. © 2011 American Physical Society.

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