Title:	Critical behavior near the ferromagnetic phase transition in double perovskite Nd2NiMnO6
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Abstract:	The knowledge of critical exponents plays a crucial role in trying to understand the interaction mechanism near a phase transition. In this report, we present a detailed study of the critical behaviour near the ferromagnetic (FM) transition (TC ~ 193 K) in Nd2NiMnO6 using the temperature and magnetic field dependent isothermal magnetisation measurements. We used various analysis methods such as Arrott plot, modified Arrott plot, and Kouvel-Fisher plot to estimate the critical parameters. The magnetic critical parameters β = 0.49±0.02, γ = 1.05±0.04 and critical isothermal parameter δ = 3.05±0.02 are in excellent agreement with Widom scaling. The critical parameters analysis emphasizes that mean field interaction is the mechanism driving the FM transition in Nd2NiMnO6. REFERENCES
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