

Multiferroic behaviour in double-perovskite $\text{Y}(\text{Ni}_{0.5}\text{Mn}_{0.5})\text{O}_3$ thin films

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We report on the functional properties of the $\text{Y}(\text{Ni}_{0.5}\text{Mn}_{0.5})\text{O}_3$ epitaxial thin films, growth by pulsed laser deposition, observing the clear features of their ferroelectric and ferromagnetic nature at cryogenic temperature. The characterization of temperature-dependent complex impedance spectroscopy has shown a dielectric anomaly around the ferromagnetic Curie temperature ($\approx 100\text{K}$) indicative of coupling between magnetic and electric orders.

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