Abstract Submitted
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Magnetotransport of $NdNiO_3$ thin films[1] ADAM HAUSER, EVGENY MIKHEEV, NELSON MORENO, TYLER CAIN, JINWOO HWANG, JACK ZHANG, SUSANNE STEMMER, Materials Department, University of California, Santa Barbara — The Hall coefficient of epitaxial $NdNiO_3$ films is evaluated in a wide range of temperatures, from the metallic into the insulating phase. It is shown that for temperatures for which metallic and insulating regions co-exist, the Hall coefficient must be corrected for the time-dependence in the longitudinal resistance, which is due to a slow evolution of metallic and insulating domains. The positive Hall and negative Seebeck coefficients, respectively, in the metallic phase are characteristic for two bands participating in the transport. We report on magnetoresistance measurements at low temperature and interpret them in terms of the specific magnetic ordering in these films, as a function of epitaxial film strain.

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Adam Hauser
Materials Department, University of California, Santa Barbara

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