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Transition in NiMnSn and NiMnIn C.P. OPEIL, Boston College, J.C. LASHLEY, J.L. SMITH, Los Alamos National Laboratory, T. PLANES, L. MANOSA, University of Barcelona — Magneto-transport, specific heat, magneto-striction and temperature dependent UV photoemission are used to explore the martensite transition of the ferromagnetic shape memory alloys $Ni_xMn_yIn_z$ and $Ni_xMn_ySn_z$. Comparisons will be made to a previous work[1] on the stoichiometric single crystal Ni_2MnGa which reveals a temperature ($235 \geq T \geq 190$ K) and field dependent (0 – 1 T) positive/negative magneto-resistance slope. Our experimental results will be discussed in light of a possible pseudo-gap formation coincident with the martensite transition in the two off-stoichiometric alloys.

[1]Opeil, et al. *Physical Review Letters* **100**, 165703 (2008).

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