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Ferromagnetic Transitions in Ni-Mn Alloys

of

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Abstract: Ferromagnetic transitions in nickel and nickel-manganese alloys have been studied using resistivity-temperature measurements from 800 to 77 K. The results establish the transition temperature of nickel as 610 K and the transition temperature is shifted to lower values as the concentration of Mn in the alloy is increased. Analysis of the resistivity results near the ordering temperature \((T<T_c) \) of these alloys suggest that these materials are in the same universal class as other ferromagnetic alloys.



Key Words: resistivity, transition temperature, spin disorder scattering, critical exponent.

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