STRAIN DEPENDENCE OF EXCHANGE INTERACTIONS IN DILUTE PdFe ALLOYS AND IN PURE Pd

by

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ABSTRACT

Measurements of the magnetostriction and the pressure dependence of the Curie temperature in ferromagnetic alloys of Pd containing 0.3, 1 and 3 atomic percent Fe provide independent evidence for a positive strain-dependence of the exchange interaction between the conduction electrons and the local moments, which contrasts with the negative strain-dependence of the exchange interaction between the conduction electrons in pure Pd.

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