

We attribute the linear increase of the resistance with temperature below T_c to the increasing spin-disorder scattering. The curves of Fig. 2 show that both the slope of the linear region and the intercept extrapolated to absolute zero increase with pressure, which means that both the spin-disorder and the residual scattering increase with pressure. DeGennes⁹ has estimated the spin-disorder scattering in rare-earth metals, and shows that the resistivity is proportional to the square of the exchange interaction between the conduction electrons and the localized 4f-states. In the PdFe alloys, the spin-disorder scattering is influenced by the enhancement effects of the Pd host. However, different matrix elements of both the exchange energy and the "enhancement operator" enter into this process from those which determine T_c and μ . Therefore information on the spin-disorder scattering does not lead to any simple conclusions concerning the strain dependence of J .

The pressure dependence of the Curie temperature of $\text{Pd}_{97}\text{Fe}_{03}$ was measured by an ac method in which the sample forms the core of a small transformer and the change in the relative initial susceptibility with temperature is recorded at different pressures.⁸ Typical curves are shown in Fig. 3. It is difficult to define T_c unambiguously, but it is clear that the curves shift to lower temperatures with increasing pressure. Defining T_c by extrapolating the rapidly rising part of each curve to the background, we obtain