$dT_c/dP = -100 \pm 40 \times 10^{-6}$ °K bar^{-1}, which results in the values of $\partial \ell n T_c / \partial \ell n V$ and $\partial \ell n J / \partial \ell n V$ given in Table 1.[10]

The different measurements yield values of $\partial \ell n J / \partial \ell n V$ which are always positive and average to $+2.4 \pm 0.5$.[11] It seems that the positive strain-dependence of the s-d exchange interaction approximately cancels the decrease of the susceptibility of the Pd matrix with increasing volume. This results in a small negative magnetostriction (since $\mu \sim JX$ from Eq. (1)) and positive strain-dependence of T_c (since $T_c \sim J^2 X$ from Eq. (4)). It is interesting to note that in pure Pd the negative strain-dependence of the exchange interaction between the itinerant carriers approximately cancels the increase of the density of states with increasing volume, so that the magnetostriction is relatively small and negative as in the PdFe alloys, but for a quite different reason.[12]

The authors thank D. R. Hamann for helpful discussions, T. R. Kyle and A. L. Stevens for technical assistance, and E. Corenzwit for preparing the samples.