

Superconductivity and Magnetic Aftereffects in the Exchange-Enhanced Paramagnetic Compound TiCo

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TiCo, a 3d-band metal, is an exchange-enhanced itinerant paramagnet. We have found that polycrystalline $\text{Ti}_{0.51}\text{Co}_{0.49}$ becomes superconducting below approximately 50 mK, and shows typical magnetic aftereffects due to the presence of a small number of ferromagnetic clusters.^{1,2,3} We have studied the relationship between superconductivity and the magnetic aftereffect. The superconducting transition temperature has been found to be related to the size and quantity of the ferromagnetic clusters.

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