



Suppression of the critical temperature in NdFeAs(OF) single crystal by Kondo-like scattering induced by irradiation

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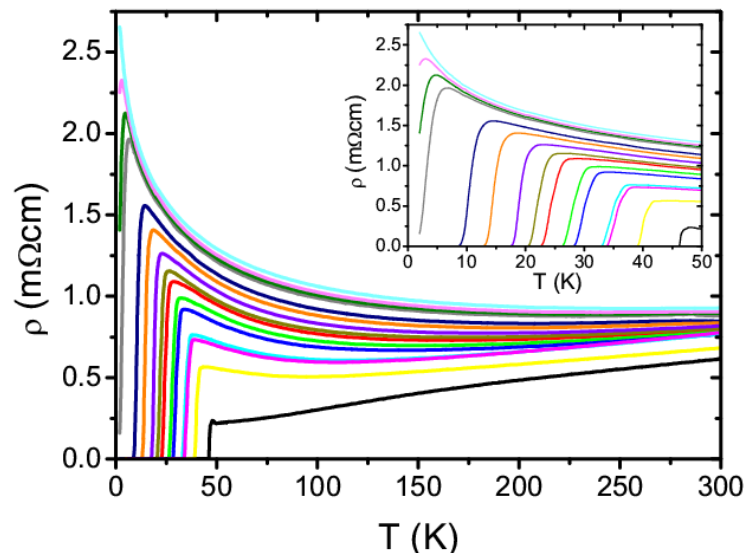
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The paper reports the first comprehensive investigation of the suppression of the critical temperature T_c of NdFeAs(OF) single crystal by disorder induced by α -particle irradiation. Our data indicate that irradiation defects produce both nonmagnetic and magnetic scattering, resulting in the Kondo-like excess resistance $\Delta\rho(T) \propto \ln T$ over 2 decades in temperatures above T_c .



Despite high densities of irradiation defects, the dose at which T_c is suppressed to zero is comparable to that for MgB₂ but is well above the corresponding values for cuprates. Such remarkably weak T_c suppression by strong magnetic and nonmagnetic disorder may reveal novel features of superconductivity and magnetism in pnictides.