

Abstract Submitted
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Anisotropy of electronic transport in the iron-pnictide superconductor $\text{Ba}(\text{Fe,Co})_2\text{As}_2$ MAKARIY A. TANATAR, Ames Laboratory, N. NI, Ames Laboratory and Department of Physics and Astronomy, Iowa State University, C. MARTIN, Ames Laboratory, R.T. GORDON, H. KIM, Ames Laboratory and Department of Physics and Astronomy, Iowa State University, V.G. KOGAN, G.D. SAMOLYUK, S.L. BUD'KO, Ames Laboratory, P.C. CANFIELD, R. PROZOROV, Ames Laboratory and Department of Physics and Astronomy, Iowa State University — The anisotropy of electrical resistivity in the iron pnictide superconductor $\text{Ba}(\text{Fe,Co})_2\text{As}_2$ has been studied using the Montgomery technique and direct transport measurements in single crystals cut along principal directions of the conductivity tensor (tetragonal c -axis and a -direction perpendicular to it). A good quantitative agreement is found between two sets of data, with a ρ_c/ρ_a anisotropy of 5 ± 1 just above the superconducting transition temperature. This is in very good agreement with expectations based on the anisotropy of the critical fields, suggestive of orbital limiting of superconductivity at T_c .

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