

Abstract Submitted
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Resistivity Anisotropy in Single Crystals of $\text{CaCo}_{1.86}\text{As}_2$ ¹ M. A. TANATAR, V. K. ANAND, A. PANDEY, N. S. SANGEETHA, D.C. JOHNSTON, R. PROZOROV, Ames Laboratory and Iowa State University — In-plane and inter-plane resistivity was measured in single crystals of type A antiferromagnet $\text{CaCo}_{2-x}\text{As}_2$ ($x = 0.14$). Clear anomalies in the temperature dependent resistivity are observed at the magnetic ordering at $T_N \approx 50$ K. The transition shifts to lower temperatures upon application of 9 T magnetic field both along tetragonal (001) axis, $H \parallel c$, and transverse to it, $H \perp c$. The temperature - magnetic field phase diagrams determined from the resistivity measurements are in good agreement with magnetization measurements [1]. No additional anomalies are found at the spin-flop transition in the compound, suggesting that the direction of the spin does not play an appreciable role in the spin-disorder scattering in this compound. [1] V. K. Anand *et al.* Phys. Rev B **89**, 214409 (2014).

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