

Abstract Submitted
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A Study of Magnetoresistance of Na_{0.75}CoO₂¹ RONGYING JIN, Oak Ridge National Laboratory, ZHIXIAN ZHOU, NHMFL, Florida State University, ALEXEI SOUSLOV, NHMFL, Florida State University, BRIAN SALES, Oak Ridge National Laboratory, QINGHONG KOU, University of Tennessee, Knoxville, DAVID MANDRUS, Oak Ridge National Laboratory — The transverse ($I \perp H$) and longitudinal ($I // H$) magnetoresistance (MR) of Na_{0.75}CoO₂ single crystals have been measured above and below the spin-density-wave (SDW) transition temperature $T_{SDW} = 22$ K. While there is little effect at $T > T_{SDW}$, the MR($H = \text{constant}$) is positive and increases with decreasing temperature along both ab plane and c direction at $T < T_{SDW}$. Strikingly, MR($T = \text{constant} < T_{SDW}$) increases monotonically with applied field, showing no sign of saturation up to 32 tesla in all cases. Quantitative analysis and implications of the data will be reported.

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Rongying Jin
Oak Ridge National Laboratory

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