

Abstract Submitted
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Electronic and Magnetic Anisotropy of Layered IrTe₂ Single Crystals¹ GUIXIN CAO, RONGYING JIN, Louisiana State University, Baton Rouge — Layered IrTe₂ is known to exhibit extremely rich physical properties with two successive phase transitions at $T_1 \sim 280$ K and $T_2 \sim 180$ K. We have grown IrTe₂ single crystals with typical sizes of 451.2 mm³. This allows us to experimentally investigate physical properties along different directions. While the lattice parameter ratio c/a is small, both electrical resistivity and magnetic susceptibility show much higher anisotropy. In particular, we only observe resistivity and susceptibility anomaly along the ab plane at T_2 , indicating the 2D character of electronic and magnetic properties at low temperatures.

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