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Quantum transport measurement of few-layer WTe2 field effect devices<sup>1</sup> JIANHAO CHEN, XIN LIU, SHIBING TIAN, CHENGLONG ZHANG, SHUANG JIA, International Center for Quantum Materials, School of Physics, Peking University; Collaborative Innovation Center of Quantum Matter, Beijing, China — We have performed systematic quantum transport measurement on field effect devices fabricated from few-layer WTe2 single crystals. We found that the magnetoresistance of few-layer WTe2 could be very different from that of bulk samples, which may arise from the imbalance of electron and hole carriers in the samples. We shall discuss our findings in more details in light of recent progress in our experiment.

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