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Magneto-transport properties of single crystal LaFeAsO at ambient and high pressure[1] COLIN MCELROY, JAMES HAMLIN, BENJAMIN WHITE, M. BRIAN MAPLE, University of California, San Diego — Electrical resistivity and magneto-transport measurements were performed on single crystals of LaFeAsO, which were grown using a NaAs flux. The magneto-transport measurements were made at ambient pressure in magnetic fields up to 9 T using the van der Pauw technique, which yielded the magnetoresistance and the Hall coefficient, from which the carrier density and mobility were inferred. The dominant charge carriers were identified as electrons, and a second anomaly was observed below the spin-density wave (SDW) transition. In order to study the evolution of these two anomalies with pressure, electrical resistivity measurements were performed under applied pressures up to 36.7 GPa.

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