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## **【157】 Spin States in a Gate-Defined Quantum Point Contact in an InAs Two-Dimensional Electron Gas**

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We present measurements of quantized conductance in a quantum point contact (QPC) defined entirely by electrostatic gating of a high-mobility InAs quantum well. Spin splitting is observed separately when applying a magnetic field in either parallel or perpendicular direction and in the latter case it is superimposed by magnetic depopulation. We resolve the energy levels of the QPC by finite bias spectroscopy and determine the g-factor for both magnetic field directions.

Minute control over nanostructures of InAs is an important step towards potential applications such as topological quantum computing for which it is a prime candidate due to its high spin-orbit interaction and a low effective mass.

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