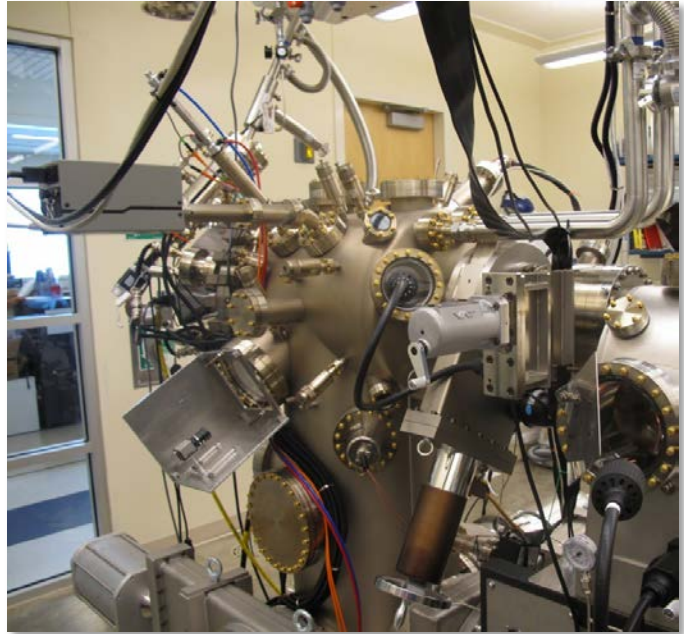


Postdoctoral Fellowship exploring Hybrid Quantum Systems

Postdoctoral Fellowship Available: Quantum Semiconductor Systems Group

Description:

The Manfra Group at Purdue University seeks a postdoctoral fellow to study molecular beam epitaxy (MBE) growth and mesoscopic device fabrication of novel AlGaAs/GaAs heterostructures for integration into hybrid GaAs/graphene devices designed to probe non-Abelian anyons in the fractional quantum Hall regime using entropy measurements. This project will involve close collaboration with the group of Prof. Andrea Young at the University of California Santa Barbara and is a part of the newly funded Quantum Science Center (QSC), a multi-organizational research collaboration led by Oak Ridge National Laboratory focused on developing novel quantum technologies. See



See <https://qscience.org/> for more information about the center. The person joining this effort will have access to state-of-the-art growth and fabrication facilities at the Birck Nanotechnology Center (<https://www.purdue.edu/discoverypark/birck/>) at Purdue University as well as cryogenic electron transport equipment capable of reaching $T=10\text{mK}$ and magnetic fields up to $B=15\text{T}$ in Prof. Manfra's laboratory. This position offers the opportunity to contribute to an innovative project at the forefront of study of topological phases of low-dimensional electron systems and work in a collaborative environment with leading scientists around the country.

Qualifications:

The ideal candidate will have previous experience in MBE growth and processing of III-V semiconductors. Experience in low temperature electron transport measurements in semiconductor devices is also desirable. It is expected that the scientist joining this effort will have the opportunity to develop new experimental skill sets during the course of the appointment. More information about ongoing work and experimental capabilities in the Quantum Semiconductor Systems Group/Microsoft Quantum Purdue can be found at <http://manfragroup.org/>.

Interested applicants should contact Prof. Michael Manfra at mmanfra@purdue.edu.