

InAs量子細線における磁気輸送特性

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Low-dimensional electron magneto-transport in InAs quantum wires

by

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Abstract

We report on fabrication and magnetotransport properties of InAs/AlGaSb quantum wires. On the narrow quantum wires, aperiodic oscillations have been observed at low magnetic fields in addition to the Shubnikov-de-Haas oscillations. Large aperiodic oscillations as well as Weiss oscillations have been clearly observed at 4.2 K on the surface fabricated by AFM oxidation process. From comparisons between these results, the interference of electron waves in the InAs quantum wires is discussed.

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