

Nanoelectronics

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Starting Date: Mon., Jan. 9, 2017
Time: M,W,F 10:00-10:50 AM
Location: EP 251B

Primary Text:

Quantum Transport: Atom to Transistor, S. Datta, Cambridge (2005).

Description: The course will cover the electronic properties and applications of nanomaterials with particular emphasis on quantum-semiconductor structures.

Topics to be covered include:

- Properties of Nanoelectronic Materials and Semiconductors Structures
- Analysis of Few-Electron Devices
- Fundamental Principles of Electrical Transport

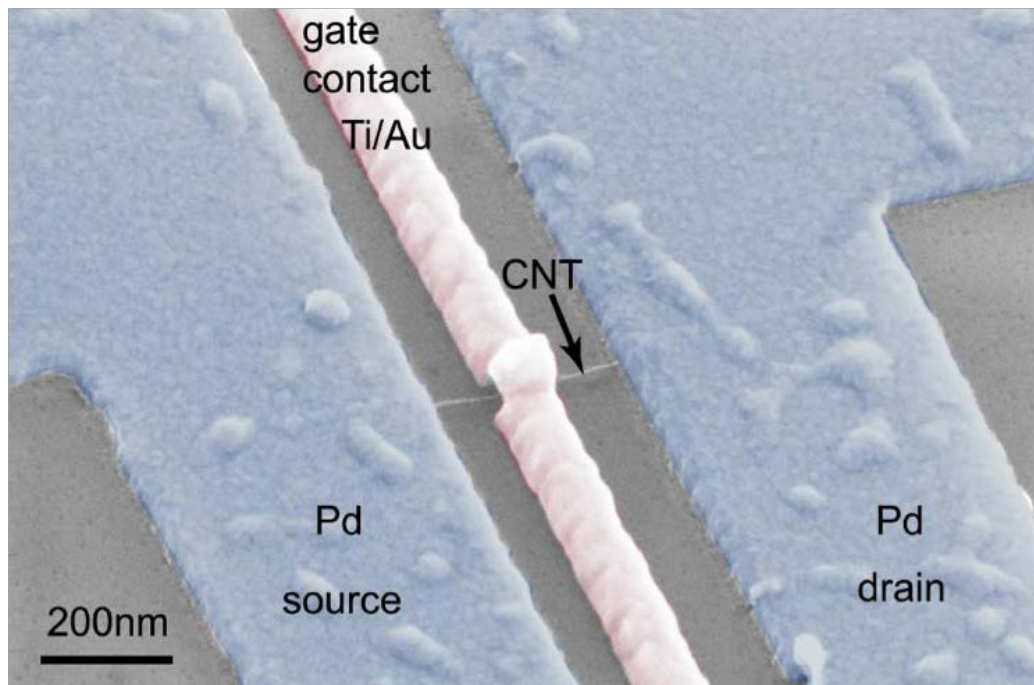


Fig.: SEM image showing carbon-nanotube transistor. (From <http://www.engineering.com>).

Prerequisites: Graduate standing. Interested undergraduate students should contact the instructor.