

## **Carbon-Based Nanoelectromechanical Devices**

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I will present some of the activities within the CANEL project on carbon-based nanoelectromechanical devices. CANEL was started in June, 2004, and is funded by the European Union as a specific targeted research project. The work is carried out by a consortium consisting of Chalmers University of Technology (coordinator), Göteborg University, Delft University of Technology, and Copenhagen University.

Our goal is to fabricate, analyze and optimize carbon-based nanoelectromechanical devices and integrate them with silicon technology. The work is divided into three main areas depending on whether the mechanically active element is a carbon nanotube, a fullerene molecule, or a nanotube filled with fullerenes (so-called peapod). In this talk I will discuss some of the recent experimental and theoretical results obtained within the CANEL project in the different areas.