

SEMINAR

CHARACTERIZATION OF MMX POLYMERS
BY CONDUCTANCE AFM: A NEW TYPE
OF MOLECULAR WIRES**JULIO GÓMEZ-HERRERO**

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Conductance atomic force microscope (CAFM) is a powerful tool to characterize the electrical conductivity of nanowires. In particular CAFM has been extensively used to measure the electrical transport properties of carbon nanotubes, DNA. Carbon nanotubes present outstanding electrical transport properties however it is difficult to envision how to selforganize them on surfaces, a basic requirement for molecular circuitry.

We present a new candidate to molecular wire based on a particular type of coordination polymer known as MMX. These polymers are usually obtained as crystals and can be described as an infinite sequence of dimetalic units linked by a ligand (usually a halogen), the chains interact through weak van der Waal forces. In the talk I will address the method to produce highly conductive nanometer bundles of a platinum based MMX polymer on insulating surfaces with a detailed description of the CAFM technique used to characterize the wires.

REMEMBER

JULIO GÓMEZ-HERRERO**Specific Seminar: Characterization of MMX polymers by conductance AFM: a new type of molecular wires****DATE:** 12 February, 2010**TIME:** 12:00**PLACE:** IFAE