

Séminaire du SPEC
Mardi 27 février 2007, 14h00

Bt. 774 - Salle Claude ITZYKSON
Centre d'Etudes de Saclay, Orme des Merisiers
91191 Gif-sur-Yvette

ATTENTION : jour et heure inhabituels

Electrochemical Methods
Involving Conducting Polymers :
Electrochemical Impedance Spectroscopy [EIS]
and Transport Measurements on the Nanoscale

B. ULGUT
(Cornell University)

I will describe two sets of experiments. In the first group of experiments, we developed a new EIS-based method to calculate conducting polymer doping levels. While all previous methods rely on unverifiable assumptions, our EIS-based method has no a-priori assumptions. In the second set of experiments, we worked on contacting individual conducting polymer molecules in an effort to achieve metallic transport. Although we were not able to achieve our initial goal, I will explain how three closely spaced gold electrodes in an acid solution can mimic conducting polymer transistor behavior with an analogy to scanning electrochemical microscopy.

Invitant :

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