



Comprendre le monde,
construire l'avenir



SEMINAIRE ISMO

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Spatially Resolved Electrochemistry at Carbon Nanomaterials

Carbon materials have a long history of use as electrodes in electrochemistry, from (bio)electroanalysis to applications in energy technologies such as batteries and fuel cells. With the advent of new forms of nano-carbon, particularly carbon nanotubes and graphene, carbon electrode materials have taken on even greater significance for electrochemical studies, both in their own right, and as components and supports in an array of functional composites.

With this increasing interest on carbon nanomaterials comes a need to critically evaluate the experimental framework from which a microscopic understanding of electrochemical processes is best developed. In this talk, I will present a novel technique for electrochemical imaging and confined electrochemistry termed Scanning Electrochemical Cell Microscopy (SECCM). Built on the platform of Scanning Probe Microscopy, this technique employs quartz pipets as probe and has proven to possess considerable potential to reveal major new perspectives on the intrinsic electrochemical activity of materials with unprecedented detail and spatial resolution. The studies presented provide new views of the electrochemical properties of carbon materials, focusing on major sp^2 materials such as graphite, graphene and single walled carbon nanotubes (SWNTs).

Attention :
nouveau
bâtiment

Mardi 28 novembre 2017 à 11h
Amphithéâtre du bât 520 (3^{ème} étage)
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