

Séminaire de Chimie Autour des Nanosciences

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Donnera une conférence sur le thème :

REAL-TIME SPECTROELECTROCHEMISTRY ON METAL-OXIDE ELECTRODES

Mesoporous transparent metal oxide electrodes exhibit a unique combination of high conductivity, high transparency and high surface area. Accordingly, they allow immobilization of a large amount of a redox probe, up to a concentration easily detected by various spectroscopic techniques, with the possibility of direct electron transfer and thus rapid redox conversion. It is thus possible to achieve real-time monitoring of the spectroscopic features of the immobilized redox probe during a coupled electrochemical experiment such as cyclic voltammetry.

We will demonstrate on selected examples how cross-correlation of spectroscopic and electrochemical data allows addressing fundamental questions on both the charge transfer/electron transport in semi-conductive electrode materials and the redox-linked catalytic reactivity of biomolecules immobilized in doped metal-oxide electrodes.

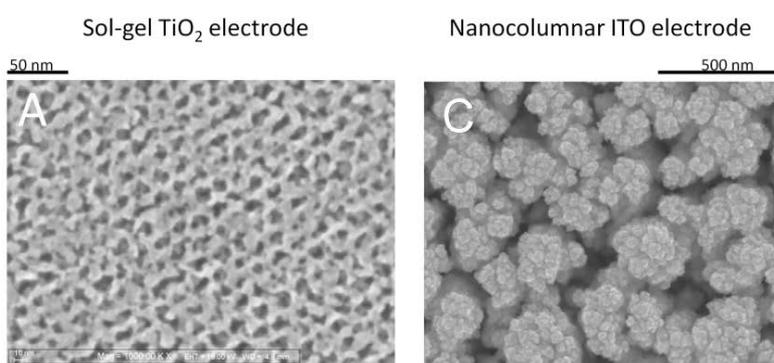


Figure: MEB images of the mesoporous metal-oxide electrodes used in real-time spectroelectrochemistry

LE VENDREDI 19 Décembre À 11H00
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