

演題: **Nanostructured surfaces for electrocatalysis**

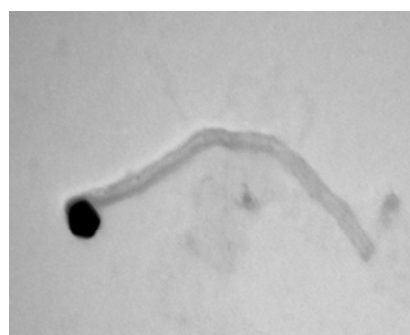
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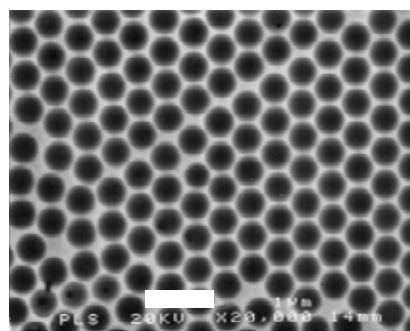
日時: 2010 年 7 月 14 日 (水) 16:00–17:30

場所: 創成科学研究棟 4F セミナー室 C (04–213)

要旨: Over the last decades the subject of complex interfaces has moved to the forefront of numerous original studies. The possibility to engineer precisely interfaces is playing an increasingly important role in the development of new technologies relevant to all aspects of our live ranging from energy conversion to biomedical devices. Engineering of surfaces and interfaces simultaneously at different length scales, from the molecular to the macroscopic size, using self-ordering phenomena and growth processes can be steered to create a wide range of structures that allow the understanding of how structural features control the function of such systems. Here we present electrodes developed in the last few years using a rational design that allows us to fine tune their physico-chemical properties by the controlled generation of metal nanostructures. The approach will be illustrated for highly organized porous electrode systems [1-5], and individually modified carbon nanotubes as ultimately small electrodes [6-8], with potential applications ranging from electrocatalysis to bioanalysis.



Carbon nanotube with a gold cluster



Porous gold electrode

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本講演は『化学研究先端講義／総合化学特別研究第二』の対象となっております。

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