



Physikalisch-Chemisches Kolloquium und Kolloquium des Center of Interface Science

Sommersemester 2011

Herr Dr. Guy Denault,

School of Chemistry, University of Southampton,

z.Zt. Fellow am Hanse Wissenschaftskolleg Delmenhorst

wird am

Montag, den 11. April 2011, 17 Uhr c.t., Raum W3 1-156

im Rahmen unseres Kolloquiums über

„Fabrication, characterisation and applications of nanostructured electrodes“

sprechen.

This lecture will describe the preparation of nano / micro porous films via templated electrodeposition. Two “bottom-up” approaches will be considered. The first relies on the self-assembly of liquid crystal molecules to form a stable phase that acts as a molecular template to direct the deposition process. The second relies on the self-assembly of nanometre size spheres to form a physical template within which electrodeposition takes place. Analysis and characterisation of the films reveal a highly ordered internal structure controlled by the size and geometry of the template. The films retain the original size of the underlying electrode but hold significantly larger electroactive areas. It will be shown that these approaches can be used to tailor the properties of films simply by changing the dimension and geometry of the internal structure. Various applications will be presented, in particular where the films have been used for analytical measurements.

Gäste sind herzlich willkommen!

Die Lehrenden der Physikalischen
Chemie