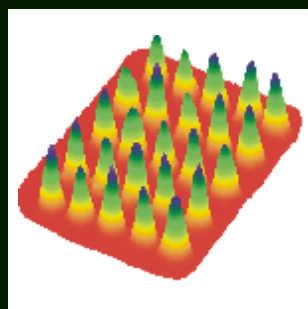


# CUSO - Summer School: Nanoelectrochemistry

September 5–9, 2010 Eurotel Victoria, Villars, Switzerland

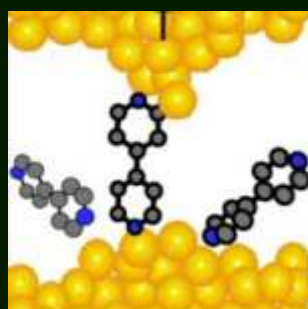


**SCOPE** The summer school "Nanoelectrochemistry" has its roots in "Interfacial Electrochemistry" as an interdisciplinary science bridging between chemistry, physics, material and life sciences. Tutorial lectures on fundamental concepts and techniques will be complemented with state-of-the-art applications. The course will start with a basic introduction into the electrochemical double layer and electrochemical measuring techniques. Subsequently, fundamentals and modern applications of in-situ structure-sensitive methods, such as scanning probe techniques and vibrational spectroscopies shall be discussed with a specific focus on exploring structure – reactivity correlations. Specific application blocks will focus on frontier case studies in (nano-)electrocatalysis, metal deposition, micromachining and molecular-scale electrochemistry.



## INVITED SPEAKERS

Prof. Philippe Allongue Ecole Polytechnique, Palaiseau (FR)  
Prof. Matthias Arenz University of Copenhagen (DK)  
Prof. Serge G. Lemay University of Twente (NL)  
Dr. Nenad M. Markovic Argonne National Laboratory (US)  
Dr. Thomas P. Moffat National Institute of Standards, Gaithersburg (US)  
Prof. Tamás Pajkossy Hungarian Academy of Sciences (HU)  
Prof. Antonio Rodes García Universidad de Alicante (ES)  
Prof. Rolf Schuster Karlsruhe Institute of Technology (DE)  
Prof. Eckhard Spohr Universität Duisburg-Essen (DE)  
Dr. Thomas Suter EMPA, Dübendorf (CH)  
Dr. Maarten Van Brussel Metrohm Autolab BV (NL)



## ORGANISING COMMITTEE

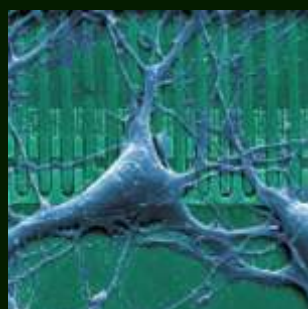
Prof. Thomas Wandlowski University of Bern (CH)  
Dr. Peter Broekmann University of Bern (CH)  
Secretary: Beatrice Niederhauser University of Bern (CH)

## REGISTRATION

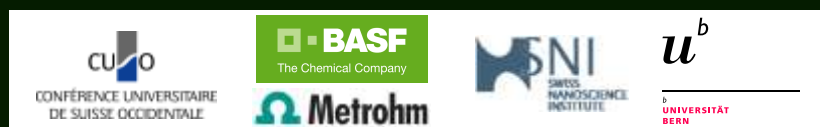
Conference website and registration (until May 31, 2010)  
<http://www.dcb-server.unibe.ch/groups/wandlowski/villars2010/>

## CONTACT

For further information please contact the conference secretary Beatrice Niederhauser  
Department of Chemistry and Biochemistry • University of Bern  
Freiestrasse 3 • CH-3012 Bern • Switzerland  
[beatrice.niederhauser@iac.unibe.ch](mailto:beatrice.niederhauser@iac.unibe.ch)  
Phone: +41 (0)31 631 4226 • Fax: +41 (0)31 631 3994



## SPONSORS



# CUSO - Summer School: Nanoelectrochemistry

## September 5–9, 2010 Eurotel Victoria, Villars, Switzerland

### TOPICS

Prof. Philippe Allongue	Introduction into SPM methods at electrified solid/liquid interfaces Structure – property relations in electrochemically fabricated magnetic nanostructures
Prof. Matthias Arenz	Fuel cells: fundamentals and applications
Prof. Serge G. Lemay	Electrochemical Nanofluidics and fundamental of ion screening
Dr. Nenad M. Markovic	Electrochemistry at well-defined bimetallic surfaces: From single crystals to nanoclusters in electrocatalysis
Dr. Thomas P. Moffat	Electrochemical processing for advanced metallization in microelectronics: Fundamentals and Applications
Prof. Tamás Pajkossy	Electrochemical methods: An introduction into time-dependent current-voltage measurements What is double layer impedance/capacitance and what can be learnt from it
Prof. Antonio Rodes García	Surface infrared spectroscopy (external and internal reflection approaches) in electrochemistry
Prof. Rolf Schuster	Electrochemical Machining and Microstructuring Electrochemical Microcalorimetry
Prof. Eckhard Spohr	Computer Simulations of liquid/solid interfaces Modeling condensed phase reactions at electrified interfaces: proton discharge at charged metal surfaces
Dr. Thomas Suter	Nanoelectrodes and Scanning Electrochemical Microscopy: Methods and Applications Microscopic Corrosion Research
Dr. Maarten Van Brussel	A practical tutorial on potentiostats/galvanostats and impedance spectroscopy On-site demonstrations of basic experiments with state-of-the-art Autolab systems

### PROGRAM

Time	Sunday 05.09.	Monday 06.09.	Tuesday 07.09.	Wednesday 08.09.	Thursday 09.09.
08.00 - 09.00		Breakfast	Breakfast	Breakfast	Breakfast
09.00 - 09.45		T. Pajkossy	P. Allongue	A. Rodes	T. Moffat
09.45 - 10.30		Coffee & Tea	Coffee & Tea	Coffee & Tea	Coffee & Tea
10.30 - 11.00		E. Spohr	T. Suter	E. Spohr	S. Lemay
11.00 - 11.45				P. Allongue	
11.45 - 12.30					
12.30 - 14.30		Lunch informal discussions	Lunch informal discussions	Lunch informal discussions	Lunch informal discussions
14.30 - 15.15		M. v. Brussel	N. Markovic	Promenade	
15.15 - 16.00	Arrival				Departure
16.00 - 16.30	Registration	Coffee & Tea	Coffee & Tea	Coffee & Tea	
16.30 - 17.15		T. Pajkossy	M. Arenz	R. Schuster	
17.15 - 18.00					
18.00 - 19.30	Dinner	Dinner	Dinner	Dinner	
19.30 - 22.00	Opening and N. Markovic	Poster Demonstrations Drinks	Poster Demonstrations Drinks	Poster Demonstrations Drinks	Poster Drinks

### TRAVEL INFORMATION



By public transport:  
By train to Bex and then with the BVB train to Villars-sur-Ollon.  
Or by train to Aigle and then by bus to Villars-sur-Ollon.  
For more details, please use the online timetable at <http://www.rail.ch>

### ACCOMMODATION

The Summer School will be held at the "Eurotel Victoria Villars" located at the centre of Villars-sur-Ollon. For more information see <http://www.eurotel-victoria.ch>

### REGISTRATION & FEES

All participants have to register online (<http://www.dcb-server.unibe.ch/groups/wandlowski/villars2010/Register.htm>) prior to May 31, 2010. Your registration will be considered as definitive when both the registration fee (see below) and the registration form have been received. The registration fee covers the total costs of the Summer School, including room and full board (except drinks) from Sunday evening to Thursday noon.

Participants from a CUSO university or associated organisations, double room accommodation	CHF 180.–
Participants from a CUSO university or associated organisations, single room accommodation	CHF 260.–
Participants from other universities or non-profit organisations, double room accommodation	CHF 550.–
Participants from other universities or non-profit organisations, single room accommodation	CHF 630.–
Participants from industry or profit-making companies, single room accommodation	CHF 1'500.–

The registration fee has to be transferred to the bank account or the postal account listed below.

IMPORTANT: Please write your name and the mention "Nanoelectrochemistry" in the space for communications.

Bank: UBS SA, CH - 1211 Geneve 2 (BIC: UBSWCHZH80A)  
Account Nr: 240-472328.00L (owner: CUSO, Neuchâtel)  
IBAN: CH37 0024 0240 4723 2800 L

or: CUSO, PO Box 2133, CH 2001 Neuchâtel  
postal account: PC 12-1873-8

### SPONSORS



### CONFERENCE WEBSITE & CONTACT

Conference website and registration (until May 31, 2010)  
<http://www.dcb-server.unibe.ch/groups/wandlowski/villars2010/>  
Conference secretary  
Beatrice Niederhauser • [beatrice.niederhauser@iac.unibe.ch](mailto:beatrice.niederhauser@iac.unibe.ch)