

Venue

The symposium will be held in the Auditorium of the Paul Scherrer Institut in Villigen. The location (bus stop Villigen PSI West) can be reached by public transport or by car via Baden or Brugg. Details may be found on the PSI website www.psi.ch.

Registration

Please use the online registration form on http://ec13.psi.ch. The deadline is April 2, 2013. The registration fee has to be paid in cash at the symposium. The package includes the book of abstracts, lunch and beverages during the coffee breaks.

Registered attendees not showing up at the symposium will be charged the full registration fee, if we do not receive a cancellation notice at least 48 h before the start of the symposium.

Registration fee

Regular CHF 100 EUR 80 Student* CHF 50 FUR 40

* please produce student ID at the registration desk

Abstracts for Poster Contributions

Abstracts must be submitted electronically using the Microsoft Word template provided on the internet site http://ec13.psi.ch.

The deadline for abstract submission is April 2, 2013.

The Symposium on the Internet

http://ec13.psi.ch

Accommodation

For the night of April 23/24, 2013, a set of rooms has been reserved at the following hotels:

Hotel Schloss Böttstein, 5315 Böttstein

Phone: +41 56 269 16 16 +41 56 269 16 66 info@schlossboettstein.ch www.schlossboettstein.ch at a rate of CHF 110, incl. breakfast.

Best Western Hotel Du Parc.

Römerstrasse 24, 5000 Baden Phone: +41 56 203 15 15 Fax: +41 56 222 07 93 duparc@welcomehotels.ch www.duparc.ch rates starting at CHF 195, incl. breakfast.

Please make your reservation before April 2 directly with the hotel, mentioning the symposium and the code "ec13".

Contact Addresses

Conference secretary:

Paul Scherrer Institut Mrs. Cordelia Gloor 5232 Villigen PSI, Switzerland Phone: +41 56 310 29 19 E-Mail: ec13@psi.ch

Paul Scherrer Institut Prof. Dr. Thomas J. Schmidt 5232 Villigen PSI, Switzerland Phone: +41 56 310 57 65 for both: Fax +41 56 310 21 99

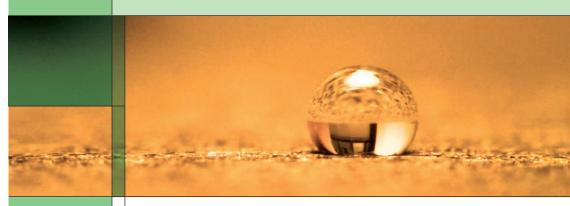




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Insights from the Inside: Imaging Electrochemical Systems



29th One-Day-Symposium **Electrochemistry Laboratory**

April 24, 2013 Paul Scherrer Institut 5232 Villigen PSI, Switzerland





Insights from the Inside: Imaging Electrochemical Systems

Program

Dear Guests.

Imaging materials and devices 'at work' and 'having a look' at their properties is a continuous scientist's desire for helping to gain better understanding of their transitions, changes or activity during operation. Whereas the original view was by pure optical means, today's view often is based on electrons, X-rays and sophisticated computational analysis to obtain two- and three-dimensional images of bulk materials and their surfaces containing electronic, structural and compositional information, which helps to address the big challenge of creating not only a link between electronic, interfacial and bulk properties, but also attaining insight into the interplay between surface chemistry, structure morphology and different materials, respectively.

At the 29th One-Day-Symposium of PSI's Electrochemistry Laboratory, six leading experts will report about Imaging Electrochemical Systems from the atomic to the sub-millimeter scale of surfaces, bulks and even devices.

We are looking forward to meeting you again on April 24, 2013, at the Paul Scherrer Institut for discussions, sharing viewpoints or simply for own educational purposes with the goal of Gaining Insights from the Inside!

09.15 Welcome Coffee

- 09.45 Thomas J. Schmidt, Paul Scherrer Institut, Villigen Welcome & Introduction
- 10.00 Robert Kostecki, Lawrence Berkeley National Laboratory Berkelev

In situ imaging of electrochemical interfaces and interphases with far- and near-field optical probes

10.40 Wolfgang Schuhmann, Ruhr-Universität Bochum Electrocatalysis and batteries meet scanning electrochemical microscopy

11.20 Coffee Break

11.50 Pierre Boillat, Paul Scherrer Institut, Villigen Neutron imaging of fuel cells: combining visualization with advanced diagnostics

12.30 Buffet Lunch

- 14.00 Olaf Magnussen, Christian-Albrechts-Universität zu Kiel In situ video-STM and X-ray scattering studies of electrode surface dynamics
- 14.40 Karl J.J. Mayrhofer, Max-Planck-Institut für Eisenforschung, Düsseldorf

Stability of electrocatalysts on the nanoscale – identical-location transmission electron microscopy

- 15.20 Werner Lehnert, Forschungszentrum Jülich Investigation of HT-PEFCs by means of synchrotron X-ray radiography and electrochemical impedance spectroscopy
- 16.00 Thomas J. Schmidt, Paul Scherrer Institut, Villigen Summary

16.10 Farewell Coffee

Photograph on front page

Water droplet on surface of gas diffusion layer for fuel cells during contact angle measurement

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^{*}Paul Scherrer Institut's Electrochemistry Laboratory is the major institution of its kind in Switzerland. Our main research and development interests are directed towards energy conversion and storage at a technical scale (mobile, stationary, and portable applications of electrochemical systems), including many fundamental aspects of atomic and molecular electrochemistry.