

postage

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■ Organisation

Location Stade de Suisse
Papiermühlestrasse 71, CH-3000 Bern 22

Date Monday, January 25th, 2010

Costs Student: CHF 150.- / Scientist: CHF 300.-

Registration Registration online at
www.empa.ch/tpv
or with the Registration Form

Registration deadline November 30th, 2009

■ Conference Office

Scientific Dr Frank A. Nüesch
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<http://thinpv.empa.ch>



Zentrum für Wissenstransfer

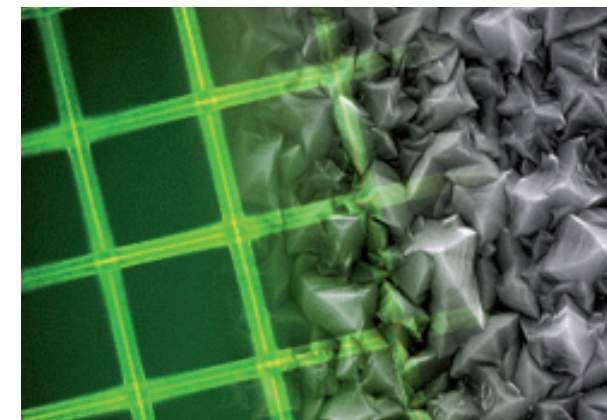


swiss^{electric}
research



Workshop

Transparent Conducting Electrodes for Photovoltaics



Stade de Suisse
Bern, Switzerland

Monday, January 25th, 2010

Registration online at
www.empa.ch/tpv

■ Background and Scope

Surpassing all predictions, the installed power generation of photovoltaic systems increased by almost 6 GWp during 2008, corresponding to a 110% increase with respect to 2007. Thin film technologies occupied a remarkable market share of roughly 12% in 2008 and are predicted to represent a market share of up to 20% in 2010. Even though the way for thin film technologies is paved by such breakthrough, large scale dissemination still faces important challenges. One of these challenges is related to the transparent electrode materials being used in the fabrication thin film solar cells. Beyond the inherent requirements of conductivity, electronic properties and transparency, other materials aspects such as brittleness, fabrication method or scarcity become important as production capacity is scaled up. This conference shall provide a deep insight into various approaches of how to achieve highly conductive and transparent electrodes and addresses researchers and engineers in the field of photovoltaics and materials science.

■ Fees and Payment

Student: CHF 150.-

Scientist: CHF 300.-

The fee includes meals, drinks and coffees served during the conference-day.

■ Registration

Please register online (www.empa.ch/tpv) or use the attached registration form. Registration deadline is the **30th of November 2009**. The number of participants is limited. Fast replies will be favoured.

After enrolment you will receive an invoice. If you need to pay by credit card please contact the administrative office (katerina.andric@empa.ch)

■ Cancellation

Cancellations until December, 20th, 2009 will not be charged. Afterwards a fee of CHF 50.- will be charged. For later cancellations (after 31st December, 2009) the full fee will be charged. Another person as a replacement will be accepted.

■ Location

The conference will be held at the congress centre **Stade de Suisse** in Berne, Switzerland.

Address: Stade de Suisse Wankdorf Nationalstadion AG, Papiermühlestrasse 71, CH-3000 Bern 22.

For conference venue please consult the following link:

http://www.stadedesuisse.ch/stadedesuisse_anfahrtsplan.pdf

■ Program

- 09.00 **Welcome coffee, registration**
- 09.45 **Opening**
Dr Frank A. Nüesch
Empa, Dübendorf, Switzerland
- 10.00 **Degenerate n- and p-type TCO's**
Prof. Tadatsugu Minami or
Prof. Toshihiro Miyata,
R&D Center Kanazawa Inst. of Techn., Japan
- 10.30 **ZnO electrodes and interfaces for solar cell applications**
Dr Klaus Ellmer
Helmholtz-Zentrum, Berlin, Germany
- 11.00 **Fundamentals of high carrier mobility TCO's**
Prof. Tobin J. Marks
Northwestern University,
Department of Chemistry, Evanston, USA
- 11.30 **Short coffee break**
- 12.00 **Thermally stable transparent electrodes from ultra thin metal films for solar cell applications**
Prof. Valerio Pruneri
ICFO Inst. De Ciencies Fotoniques, Barcelona, Spain
- 12.30 **Transparent electrodes based on polymer-nanotube composites for PV application**
Prof. Jonathan N. Coleman
Trinity College, School of Physics,
Dublin, Ireland
- 13.00 **Lunch**
- 14.30 **TCO deposition processes on flexible polymer films**
Dr Matthias Fahland
Fraunhofer Institut, Dresden, Germany
- 15.00 **Use of fabrics for transparent device electrodes**
Dr Peter Chabreck
Sefar Division Druck, Thal, Switzerland
- 15.30 **Transparent conducting sol-gel ATO coatings for thin PV device applications**
Dr Guillaume Guzman, Corning SA, Avon, France
- 16.00 **Laser patterning for thin-film silicon solar modules**
Stefan Haas, Forschungszentrum Jülich, Germany
- 16.30 **Closure and open discussion**
- 17.00 **Aperitif**

Registration Form



Workshop

Transparent Conducting Electrodes for Photovoltaics

Monday, January 25th, 2010, 9 am to 6 pm

Stade de Suisse

Papiermühlestrasse 71, CH-3000 Bern 22, Switzerland

Registration deadline: November 30th, 2009

Your registration will be acknowledged by E-mail after reception.

Costs: Student: CHF 150.-, Scientist: CHF 300.-
The fee includes meals, drinks and coffees served during the conference-day.

Registration: Registration online at www.empa.ch/tpv or with the Registration Form

Ms Mr Prof. Dr. Student

Name _____

First Name _____

Affiliation _____

Address _____

Phone _____

Fax _____

E-Mail _____

Date _____

Signature _____