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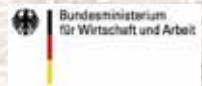


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IEA International Energy Agency
ECBCS Annex 39 High Performance Thermal Insulation

Organising Committee

Hans-Frieder Eberhardt, Porextherm, Kempten, Germany

Markus Erb, Dr. Eicher & Pauli AG, Liestal, Switzerland

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Therese K. Stovall, Oak Ridge Nat. Lab, Oak Ridge, USA

Mark Zimmermann, Empa Duebendorf, Switzerland



7th International Vacuum Insulation Symposium

September 28-29, 2005

Zurich-Duebendorf, Switzerland

First Announcement
Registration

7th International Vacuum Insulation Symposium

September 28-29, 2005, EMPA Duebendorf, Switzerland

The 7th International Vacuum Insulation Symposium continues a series of conferences, which was originally started by the former Vacuum Insulation Association (VIA). The last conference was held in Washington DC in 2003.

The Swiss Federal Laboratories for Materials Testing and Research (Empa) will be the venue of the 7th International Vacuum Insulation Symposium in 2005.

Empa has already organised the conference and workshop on High Performance Thermal Insulation Systems - Vacuum Insulated Products (VIP) in 2001.

The Symposium will offer two informative days of technical sessions, table top exhibits presentations and networking opportunities for high performance thermal insulation systems, vacuum insulation manufacturers, fabricators, and end users.

Conference Fee and Registration

The conference fee of EUR 200.-/CHF 300.- includes the attendance at the technical presentations, a copy of the Symposium proceedings, refreshments and the Symposium dinner.

The conference fee is either payable in cash at the conference or in advance by credit card (in combination with electronic reservation www.empa.ch/VIP-Symposium, Master Card or Visa).

The Symposium will take place in the Conference Centre of Empa on Wednesday, September 28, 2005, from 8:30. The registration desk will be open during the two symposium days. All symposium material will be distributed at registration. Your name tag is proof of your registration and must be worn to all symposium events.

Symposium Proceedings

Symposium Proceedings of all presentations are published by Empa. Each Symposium participant will receive one copy of the proceedings upon registration. Further copies will be available from mark.zimmermann@empa.ch

Symposium Dinner

A conference dinner is organised for the evening of Wednesday, September 28, 2005 in Zurich. All Symposium participants are invited to join this event, and to use this opportunity for further discussions on Vacuum Insulation topics with colleagues.

Accompanying Persons

There is no special programme for accompanying persons. However, accompanying persons are welcome to join the Apéro and the Symposium dinner for an additional cost of EUR 50 to be paid at the registration desk.

Accommodation

The Organizing Committee suggests hotel accommodation in Zurich. Please make your reservation directly at the hotel of your choice. You will find accommodation information at www.zuerich.com/hotel. Please ask for ETH/EMPA rates at reservation.

Recommended hotels*** are (Rates in CHF):

Hotel Sonnentel, Zürichstrasse 96 8600 Duebendorf
Phone: +41 44 802 12 82, Fax: +41 44 821 41 91
www.hotelsonnentel.ch
CHF 120.-, 15 minutes walk to Empa, parking available

Hotel Adler, Rosengasse 10, Hirschenplatz, 8001 Zurich
Phone: +41 44 266 96 70, Fax: +41 44 266 96 69
[/www.hotel-adler.ch](http://www.hotel-adler.ch), CHF 150.-/170.-, central Zürich, 5 minutes walk from Zurich main station

Hotel Florhof, Florhofgasse 4, 8001 Zurich
Phone: +41 44 250 26 26 Fax: +41 44 250 26 27
www.florhof.ch
CHF 210.-, central Zurich, nicely situated

Hotel Zürichberg, Orellistrasse 21, 8044 Zurich
Phone: +41 44 268 35 35, Fax: +41 44 268 35 45
www.zuerichberg.ch
CHF 195.-, nicely situated above Zurich, car park,

Hotel Astor, Astor, Weinbergstr. 44, 8006 Zurich ZH
Phone: +41 44 251 35 60, Fax +41 44 251 49 15,
www.hotelastorzurich.ch
CHF 150.-, 5 minutes walk from Zurich main station

Registration for the Symposium, Sept. 28-29, 2005

Please register before August 31, 2005 either by Internet (www.empa.ch/VIP-Symposium), Fax or mail.

First name:

Family name:

Company/Institute:

Street/Number:

Postal code/City:

Country:

Email:

Fax:

Date/Signature:

Accompanying Person

Require special services as disabled attendee

Please print out this form and send it by Fax to Empa, Mark Zimmermann, Ueberlandstrasse 129, CH-8600 Duebendorf, Fax Number is +41 44 823 40 09

All information is available at www.empa-ren.ch

I will stay at Hotel:

Please reserve your accommodation directly. The Organising Committee recommends Hotels in Zurich. See addresses listed in left column.

Wednesday, September 28, 2005

Registration and welcome coffee 9.00

Time 9.30 **Welcome**

Mark Zimmermann, Swiss Federal Laboratories for Materials Testing and Research (Empa)

Time: 9.40: **Introduction Talk**

Prof. Dr. Jochen Fricke, Bavarian Centre for Applied Energy Research (ZAE Bayern): **From Dewars to VIPs – One Century of Progress in Vacuum Insulation Technology**

Time 10.10: **Building Applications**

Chair: Markus Erb

Dr. Hans Simmler, Swiss Federal Laboratories for Materials Testing and Research (Empa): **Aging and Service Life of VIP in Buildings**

Dr. Ulrich Heinemann, Bavarian Centre for Applied Energy Research (ZAE Bayern): **Influence of Water on the Total Heat Transfer in 'Evacuated' Insulations**

Coffee break 11.00

Time 11.30: **Building Applications**

Chair: Markus Erb

Dr. Samuel Brunner, Swiss Federal Laboratories for Materials Testing and Research (Empa): **Monitoring of Vacuum Insulation Panels in Building Applications**

Gregor Steinke, University of Applied Sciences Basel (FHBB): **Applications of Vacuum Insulation in the Building Sector**

Markus Erb, Dr. Eicher+Pauli AG (E+P): **IEA/ECBCS Annex39 - Vacuum Insulation for Buildings**

Lunch break: 12.30

Time 13.30: **Quality Assurance**

Chair: Dr. Yoash Carmi

Dr. Roland Caps, va-Q-tec AG, **Monitoring Gas Pressure in Vacuum Insulation Panels**

Dr. Dietrich Büttner, Bavarian Centre for Applied Energy Research (ZAE Bayern): **Fast Method to Control the Thermal Conductivity of Metal-Covered VIP**

Daniel Kraus, Bavarian Centre for Applied Energy Research (ZAE Bayern): **Non-destructive Method to Determine the Water Vapour Pressure in VIP**

Dr. Douglas Smith, NanoPore Incorporated: **Applications of Vacuum Insulation Panels in Extreme Environments**

Coffee break: 15.00

Time: 15.30: **Vacuum Barriers**

Chair: Dr. Yoash Carmi

Dr. Dirk Kaczmarek, Wipac Walsrode GmbH & Co. KG: **Barrier Films for Vacuum Insulation Panels (VIP)**

Rami Kalfon, CLP industries: **Novel Films for Vacuum Insulated Panels**

Dwight S. Musgrave, Thermal Visions, Inc.: **Finite Element Analysis Used to Model VIP Barrier Film Performance**

Dr. Werner Platzer, Fraunhofer Institute for Solar Energy Systems (ISE): **Development of Innovative Insulation Systems on the Basis of New Vacuum Insulation Panels**

Evening Programme

Special announcement at registration desk



7th International
Vacuum Insulation
Symposium

September 28-29, 2005

Zurich-Duebendorf, Switzerland

Symposium
Programme

Thursday, September 29, 2005

Time 9.00: **Building Physics**

Chair: Chris Meyer

Daniel Quenard, Centre Scientifique et Technique du Bâtiment (CSTB): **From VIP's to Building Façades: Three Levels of Thermal Bridges**

Heiko Winkler, University of Rostock: **Development and First Experiences of a Prefabricated VIP-Sandwich-Element for Fast and Secure Application on Building Surfaces**

Dr. Karim Ghazi Wakili, Swiss Federal Laboratories for Materials Testing and Research (Empa): **Thermal Performance of VIP Assemblies in Building Constructions**

Prof. Jürgen Dreyer, University of Technology Vienna: **Thermal-hygric Suitability of Vacuum Insulation Boards for Refurbishing of Buildings**

Coffee break: 10.30

Time: 11.00: **VIP Systems**

Chair: Chris Meyer

Dr. Kai Schild, Ruhr-Universität Bochum: **Numerical Investigation on Thermal Bridge Effects in Vacuum Insulating Elements**

Ray Ogden, Oxford Brookes University: **Development of Vacuum Insulated Building Cladding Systems**

Prof. J.J.M. Cauberg, Technical University Delft (TUD) **From VIP to Building Panel**

Markus Zwenger, Sto Aktiengesellschaft: **Practical Experience with VIPs in External Thermal Insulation Composite Systems**

Lunch break: 12.30

Time: 13.30: **New Vacuum Insulation Concepts**

Chair: Mark Zimmermann

Yamada Muneto **Development on New Vacuum Insulation Panel, „Chip-Vacua“**

Dr. Douglas Smith, NanoPore Incorporated: **Controlled Temperature Packaging Using On-demand Cooling from Active Vacuum Insulation Panels**

Jan Cremers, Technical University of Munich **Typology of Applications of Opaque and Translucent VIP in the Building Envelope**

Dr. Helmut Weinläder, Bavarian Centre for Applied Energy Research (ZAE Bayern): **Vacuum Insulation Glass**

Coffee break: 15.00

Time 15.30 **Panel Discussion**

Chair: Mark Zimmermann

Panel:

Dr. Ulrich Heinemann, Bavarian Centre for Applied Energy Research (ZAE Bayern)

Prof. Armin Binz, University of Applied Sciences Basel (FHBB)

Dr. Roland Caps, va-Q-tec AG

Gregor Erbenich, Porextherm Dämmstoffe GmbH

Dr. Dirk Kaczmarek, Wipak Walsrode GmbH & Co. KG
Douglas Smith, NanoPore Incorporated

Adjourn 16.15

Session Chairs

Markus Erb, Dr. Eicher+Pauli AG (E+P), Operating Agent of IEA Annex 39 „High Performance Thermal Insulation“

Dr. Yoash Carmi, Hanita Coatings, Israel

Chris Meyer, Acutemp, Dayton, Ohio

Mark Zimmermann, Swiss Federal Laboratories for Materials Testing and Research (Empa)

Sessions

All sessions will be held in English in the Empa Academy at the Swiss Federal Laboratories for Materials Testing and Research in Duebendorf near Zurich.

Transportation between Zurich and Empa

Empa is located north of the town of Zurich in Duebendorf. A convenient connection is the S-Bahn, a fast railway service from town to the suburbs. S9 and S14 runs four times an hour in both directions. A 24 hour ticket allows you to travel within the city on all bus, tram and railway lines. Even the public transportation on the lake of Zurich is partially included.

S9 leaves Zurich main station at xx.28 and xx.58
Tracks 23/24 direction Uster, 10 minutes

S14 leaves Zurich main station at xx.08 and xx.42
Track 54 direction Hinwil, 14 minutes

From Duebendorf Station please follow the signs to Empa Academy. It is a short walk of about 10 minutes.

