

call for papers



ICCG 11

THE 11TH INTERNATIONAL CONFERENCE ON COATINGS ON GLASS AND PLASTICS

Advanced Coatings for Large-Area
or High-Volume Products

Second Circular

June 12-16, 2016

Conference Center
Stadthalle Braunschweig, Germany
<http://11.iccg.eu>

Organized by
International Organizing Committee of ICCG
Fraunhofer Institute for
Surface Engineering and Thin Films IST



Fraunhofer

IST

Table of Contents	Page
Welcome Address	3
Organizing Committee	4
Correspondence and Support	5
Preliminary Conference Program	6
Call for Papers	13
Accommodation and Getting to the Conference	14
Registration	15

Welcome to the 11th ICCG

Following the last ten successful ICCG conferences, the 11th ICCG is being held on June 12 – 16, 2016 in Braunschweig, Germany. The focus of the conference is to bring together science and industry to discuss the latest trends in the field of coatings on glass and plastics. Besides universities and research institutes, the conference addresses coating manufacturers, material and equipment suppliers, and user industries. As a traditional city of science Braunschweig provides an inspiring platform for its guests. Future topics have a long tradition in the City of the Lion.

The application of coatings is an area which has become extremely important for large-area or high-volume products. The conference focuses on the development and application of advanced coatings on glass and plastics, using a broad and multidisciplinary approach. The topics will cover all of the required steps and techniques to control the coating process, to characterize, and to finish the coated product. Finally, the 11th ICCG provides information on the different technologies at a general level for new product designers, as well as technical aspects, safety measures, and environmental and economic factors. A panel discussion on "Architectural Glazing – Quo Vadis?" will also be organized.

On Monday and Tuesday companies and organizations will have the opportunity to present their equipment, products, and materials within the technical exhibition.

Besides the stimulating technological and scientific program, we hope that the conference site itself will provide many opportunities for interesting discussions and networking within the international glass and plastic coatings community.

We look forward to seeing you in Braunschweig in 2016!



Prof. Dr. Günter Bräuer
Chairman of ICCG



Dr. Koichi Suzuki
Secretary of ICCG



Dr. Volker Sittinger
Local Chairman of ICC11

Local Organizing Committee

Local Chairman	Dr. V. Sittinger, Fraunhofer IST, Germany
Local Secretary	Dr. S. Kondruweit, Fraunhofer IST, Germany
Local Editorial Chairman	Dr. A. Pflug, Fraunhofer IST, Germany

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Organized by

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Fraunhofer Institute for Surface Engineering and Thin Films IST

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Supported by

- Deutsche Glastechnische Gesellschaft DGG, Germany
- Glass Innovation Institute GII, Finland
- Glass Performance Days GPD, Finland
- Glass Worldwide, UK
- PLASMA GERMANY, Germany
- Society of Vacuum Coaters SVC, USA
- The Ceramic Society of Japan, Japan
- The Japan Society of Applied Physics, Japan
- The Materials Research Society of Japan, Japan
- The Physical Society of Japan, Japan
- The Vacuum Society of Japan, Japan

Main Sponsors**Bühler Alzenau GmbH**

Siemensstraße 88, 63755 Alzenau, Germany

**Von Ardenne GmbH**

Plattelle 19/29, 01324 Dresden, Germany

Preliminary Conference Program

The following pages show the preliminary program with some exemplified lectures and speakers. Please note that the whole schedule is subject to change. For updated and more detailed information on the conference please visit the website <https://11.iccg.eu>.

June	12 Sunday	13 Monday	14 Tuesday	15 Wednesday	16 Thursday
Morning		Opening Introductory session	Technical exhibition Session 2 Session 3	Technical exhibition Session 5 Session 6	Session 8 Closing
Noon	Short courses	Lunch	Lunch	Lunch	Company tours
Afternoon		Session 1	Session 4 Poster session	Session 7 Panel discussion	
Evening	ICCG Birthday reception	Industrial evening		Conference dinner	

Introductory Session – Market and Business in the Field of Coatings on Glass and Plastics

Session 1 – Advanced Vacuum Processes

Session 2 – Wet-chemical and Hybrid Processes

Session 3 – ALD, CVD, and Atmospheric Plasma Processes

Session 4 – Processes for Flexible Substrates

Session 5 – Film Growth, Process Control, and Model Based Concepts

Session 6 – Energy Conversion, Saving, and Storage

Session 7 – Optics, Consumer Electronics, and Communication

Session 8 – Medical, Food, and Environmental Applications

Panel Discussion – Architectural Glazing – Quo Vadis?

Poster Session

The poster session will take place on Tuesday. The jury of the international organizing committee will award the best three posters, in addition to “Hans Pulker award” to be given to the best presentation in the whole conference.

Technical Exhibition

The technical exhibition will be held on Monday and Tuesday in the foyer of the conference center giving companies and organizations the opportunity to present their equipment, products and services. Please sign up early to allow yourself the widest choice of booth position.

Call for Sponsors and Exhibitors

In addition to the exhibition it is possible to sponsor the conference providing your company with maximum visibility to both key decision-makers and researchers who attend and participate at the 11th ICCG.

Preliminary Social Program

Sunday, June 12, 2016, 06:00 p.m. – 08:30 p.m.
ICCG Birthday reception, Conference Center Stadthalle

Monday, June 13, 2016, 06:00 p.m. – 08:30 p.m.
Industrial evening, Conference Center Stadthalle

Wednesday, June 15, 2016, 07:00 p.m. – 11:00 p.m.
Conference dinner, Waldhaus Oelper
Please note that the whole schedule is subject to change.

Company Tours

Thursday, June 16, 2016
Fraunhofer Institute for Surface Engineering and Thin Films IST (free of charge)

On a tour through the laboratories of the Fraunhofer IST you will get an impression of our work in the fields of large area coating, characterization of materials and layers, diamond technology, diamond like carbon coatings and atmospheric pressure plasma processes.

Accompanying Persons Program

The accompanying persons may participate at a number of excursions organized throughout the week of the conference to explore the history, culture, architecture, and landscape of the region around Braunschweig. Further information and the final schedule will be announced on the conference website <http://11.iccg.eu>.

- **TOUR 1, Monday, June 13, 2016**
Guided historical city walk through Braunschweig, minimum 20 persons, € 25
- **TOUR 2, Tuesday, June 14, 2016**
Trip to the imperial city of Goslar, including a 50-minute bus transfer, minimum 20 persons, € 75
- **TOUR 3, Wednesday, June 15, 2016**
Trip to the “Autostadt” by Volkswagen in Wolfsburg, including a 40-minute bus transfer, minimum 20 persons, € 75

Please note that lunch is not included.

Sunday, June 12**Short Courses***Chairman: Dr. V. Sittinger*

12:30 p.m. – 06:00 p.m. Conference Center Stadthalle

Before the start of the conference itself experts will give educational lectures to provide fundamental and technological background in specific conference topics regarding to materials, processes and applications.

- **Latest Development of Plasma Sources**
Dr. Michael Liehr, W&L Coating Systems GmbH, Germany
- **Functional Surfaces for Biomedical Applications**
Prof. Dr. Wolfgang Viöl / Dr. Michael Thomas, Fraunhofer IST, Germany
- **Process Modeling**
Dr. Andreas Pflug, Fraunhofer IST, Germany
- **Flexible Batteries**
Dr. Sven Ulrich, Karlsruhe Institute for Technology, Germany
- **Ultra Fast Thermal Processing**
Dr. Wolfgang Skorupa, Helmholtz-Zentrum Dresden-Rossendorf e. V., Germany
- **Measurement of Barrier Properties**
Dr. Wulf Grähler, Fraunhofer IWS, Germany

ICCG Birthday Reception

06:00 p.m. – 08:30 p.m. Conference Center Stadthalle

Monday, June 13**Opening – Welcome Address****Introductory Session – Market and Business in the Field of Coatings on Glass and Plastics***Chairmen: Dr. K. Suzuki, J. Vitkala*

The introductory session will provide market and business information and clarify future technical requirements.

- **Challenges for Automotive Glazing**
Prof. Dr. Jürgen Lehold, Volkswagen AG, Germany
- **Market and Business Prospects on Batteries**
Dr. Isotta Cerri, Toyota Motor Europe, Belgium
- **Market Overview on the Complete Converting Topics**
Thomas Kolbusch, Coatema Coating Machinery GmbH, Germany
- **High-Performance Wet Coatings on Glass and Plastics: A Brief Overview over History and new Developments and Perspectives**
Prof. Dr. Helmut Schmidt, HSM TechConsult, Germany
- **Organic Solar Films from Vacuum Roll-to-Roll Manufacturing for Building-integrated Photovoltaics**
Dr. Martin Pfeiffer, Heliatic GmbH, Germany
- **Plasma Medicine**
Prof. Dr. Masaru Hori, Nagoya University, Japan
- **G-Leaf™ - Flexible Glass and Potential Application**
Akihisa Saeki, Nippon Electric Glass Co.,Ltd., Japan

Session 1 – Advanced Vacuum Processes*Chairmen: Prof. Dr. G. Bräuer, Dr. J. Strümpfel*

Keynote lecture

Future of Sputtering

Prof. Dr. Hana Barankova, Uppsala University, Sweden

Industrial Evening

06:00 p.m. – 08:30 p.m. Conference Center Stadthalle

Tuesday, June 14**Session 2 – Wet-chemical and Hybrid Processes***Chairmen: Dr. J. Pütz, Dr. G. Schottner*

Keynote lecture **Large Area Organic Optoelectronic Devices Containing Vacuum Deposited and Solution Processed Functional Layers**
Prof. Dr. Uli Lemmer, Karlsruhe Institute of Technology, Germany

Invited lecture **Various Silica Hybrid Materials**
Hideki Goda, Arakawa Chemical Industries, Ltd., Japan

Session 3 – ALD, CVD, and Atmospheric Plasma Processes*Chairmen: Prof. Dr. D. Sheel, Prof. Drs. K. Spee*

Keynote lecture **Title to be confirmed**
Stephan Klotz, BASF Schweiz AG, Switzerland

Invited lecture **Pilot Line R2R Atmospheric Pressure Plasma CVD of SiO₂**
Dr. Ir. Hindrik W. de Vries, FOM Institute Differ, FUJIFILM Manufacturing Europe B.V., The Netherlands

Session 4 – Processes for Flexible Substrates*Chairmen: R. Shimshock, Dr. T. Kälber*

Keynote lecture **Roll-to-Roll Processing for Flexible Devices and Components Utilized in Wearable and Mobile Electronics and the Coming IoT Era**
Dr. Neil Morrison, Applied Materials Web Coating GmbH, Germany

Invited lecture **The Road from S2S to R2R - Status, Risks and Visions for Processing Ultra-thin Glass**
Dr. Manuela Junghänel, Fraunhofer FEP, Germany

Poster Session

05:30 p.m. – 07:00 p.m. Conference Center Stadthalle

Wednesday, June 15**Session 5 – Film Growth, Process Control, and Model Based Concepts***Chairmen: Prof. Dr. B. Szyszka, Prof. Dr. Y. Shigesato*

Keynote lecture **Modelling of Titania Growth**
Prof. Dr. Stephane Lucas, University of Namur, Belgium

Session 6 – Energy Conversion, Saving, and Storage*Chairmen: Dr. W. DeBosscher, K. Kato*

Keynote lecture **Switchable Mirrors based on Metal Hydrides for Smart Windows**
Dr. Yasusei Yamada, National Institute of Advanced Industrial Science and Technology, Japan

Invited lecture **Thin Film Battery Pilot Line**
Benoit Riou, STMicroelectronics, France

Session 7 – Optics, Consumer Electronics, and Communication*Chairmen: Prof. Dr. N. Kaiser, Dr. G. Ockenfuß*

Keynote lecture **Recent Developments in the Field of Precision Optical Coatings**
Dr. Marcus Frank, Optics Balzers AG, Liechtenstein

Invited lecture **Plasma Diagnostics for Efficient Optimization of Optical Coatings**
Dr. Rüdiger Foest, INP Greifswald e.V., Germany

Panel Discussion – Architectural Glazing – Quo Vadis?*Chairmen: Dr. J. Trube, Dr. M. Mennig, Dr. V. Sittinger*

Moderator Dr. Johannes Strümpfel, Senior Consultant PVD, Germany

Distinguished international panelists such as Dimitry Bernt from NSG Pilkington Glass, Russia, Dr. Hartmut Wittkopf from EControl-Glas GmbH & Co. KG, Germany, and Prof. Dr. Sener Oktik from Şişecam, Turkey will discuss about major future trends in architectural glazing and façade elements with respect to innovative trends in design, functionality, sustainability, and new technologies.

Conference Dinner

07:00 p.m. – 11:00 p.m. Waldhaus Oelper

Thursday, June 16

Session 8 – Medical, Food, and Environmental Applications

Chairmen: Prof. Dr. W. Viöl , Dr. R. Trassl

Keynote lecture **Food Packaging in the Future**
Prof. Dr. Horst-Christian Langowski, Fraunhofer IVV, Germany

Invited lecture **Nerves made of Glass - New 3D Visualization**
Prof. Dr. Wolfgang Schade, Fraunhofer HHI / TU Clausthal, Germany

Closing

Company Tours

01:00 p.m. – 05:00 p.m. Fraunhofer IST

Call for Papers

Deadline	December 15, 2015
Notification of acceptance	January 26, 2016
Submission of full papers	March 15, 2016

The organizing committee invites all scientists, technologists, and managers to submit abstracts to be considered as oral presentations or posters at the 11th ICCG. Please submit the abstract on the website <http://11.iccg.eu>.

Abstract Guidelines

- The conference language is English.
- Abstracts should be objective and technical and should be based on data not previously published. The text must be no longer than 400 words and be without equations, figures or references.
- Authors should be aware that they will be obligated to prepare an extended version or a full paper if their abstract is accepted, submission due by March 15, 2016.
- The review of abstracts will be completed by January 26, 2016. A notification of acceptance along with further instructions will be sent to authors whose abstracts have been accepted for the conference. They will also be notified of the form in which their paper shall be presented, i.e. either poster or oral presentation.
- If an abstract is accepted, a full conference registration will be mandatory for the author in charge. The conference office should be notified immediately of any changes regarding the author in charge / presenting author or of a cancellation.

Publication

Authors whose abstracts are accepted will be requested to submit an extended version of their abstract or a full paper electronically (Deadline: March 15, 2016). Please note that it will be published in the conference proceedings as received without a refereeing process. Detailed instructions for the preparation of these papers will be provided to each author with the notification of acceptance.

Accommodation

Braunschweig offers a wide range of accommodations with different price levels from 67 to 149 Euros. The deadline for the hotel booking is May 12, 2016. For later booking there is no guarantee that hotel rooms will still be available. An early hotel reservation is highly recommended, especially if you plan to include a weekend. For booking please visit <https://11.iccg.eu> or contact Braunschweig Stadtmarketing GmbH: congress@braunschweig.de

Getting to the Conference

Stadthalle Braunschweig
Leonhardplatz
38102 Braunschweig

- **By airplane...** Hannover's international airport is about 70 km away from Braunschweig.
- **By train...** The Deutsche Bahn will bring you almost to our front door. The main station is a few minutes walk from the conference center Stadthalle.
- **By car...** Travelling to the conference center Stadthalle Braunschweig by car is very easy and comfortable. The conference center is located close to the main station. You will find the Stadthalle or the main station sign posted throughout the city.



Registration for the Conference and Payment Conditions

Please register on <https://11.iccg.eu> using one form for each participant. Once the confirmation of conference registration and the invoice are sent to registered participants the conference registration becomes binding. Participants must make their bank transfer after they have received the invoice, payable within 30 days. The invoice number and participant's name must be indicated on the transfer form. ICCG will send a confirmation of payment after having received the conference fees.

Conference Fees

Registration	till March 4	till May 13	from May 13
Short courses ^{*a}	€ 250	€ 275	€ 300
Full conference ^b	€ 750	€ 900	€ 990
Day pass (Mon / Tue / Wed)	€ 350	€ 375	€ 400
Day pass (Thu)	€ 150	€ 150	€ 150
Students (Full conference) ^b	€ 350	€ 400	€ 450
Students (Presenting a paper) ^b	€ 250	n/a	n/a
Accompanying person ^{*c}	€ 150	€ 175	€ 200

^a Small lunch and coffee break included

^b Lunch, coffee breaks, and social events included

^c Fee includes all social events

* Proceedings not included

- All prices are quoted and payable in €.
- Only students up to the age of 27 qualify for the student's fee, please e-mail or fax a copy of a valid student card and your ID to the conference office.
- The full conference pass does not include admission to the short courses on Sunday, June 12, 2016.
- The fee for the short courses includes a set of manuscripts and a coffee break.
- Fees for the accompanying persons program have to be paid separately.

Cancellation

Cancellations have to be done in written form and have to be confirmed by ICCG. Cancellations received until April 15, 2016, the conference cost minus an administration fee of 150 € will be refunded. For cancellations after this date, no refunds will be given.

