Fraunhofer
FEP

FRAUNHOFER INSTITUTE FOR ORGANIC ELECTRONICS, ELECTRON BEAM AND PLASMA TECHNOLOGY FEP

REGISTRATION

To register, please fill out the online registration form:
www.fep.fraunhofer.de/proflex

Participation is limited, we recommend an early registration. The registration fee includes break drinks, small lunch and the dinner on November 5, 2019. The Tutorial will be held from 2 p.m. – 5 p.m. on November 4.

- **Regular registration fee** **445,- €**
- **Student (with valid student card)** **99,- €**
- **Tutorial** **75,- €**

CONTACT

Conference Administration
Annett Arnold

Winterbergstr. 28 | 01277 Dresden, Germany
Phone +49 351 2586-333 | events@fep.fraunhofer.de

The latest news and all further information including

- hotel recommendations
- detailed arrival information
- sponsorship options
- presentations of the previous conferences

can be found on our website:

www.fep.fraunhofer.de/proflex

VENUE

Fraunhofer FEP
Winterbergstraße 28 | 01277 Dresden, Germany

Detailed directions to the Fraunhofer FEP in Dresden:
www.fep.fraunhofer.de

HOTEL RECOMMENDATIONS

A list of recommended hotels can be found on the event website:

www.fep.fraunhofer.de/proflex

SPONSORSHIP AND EXHIBITION

Benefits of sponsorship start when you sign up and last until long after the pro flex! Every sponsor is acknowledged during their sponsored event with prominent signage, on the pro flex web site and in all pro flex publications throughout the year. Participate in our Sponsor Program to reinforce your name recognition and demonstrate your commitment to the industry.

Use the chance to take part in our tabletop exhibition if you would like to present your products and services to local and international experts in the roll-to-roll industry.

Ask for sponsorship and exhibition possibilities by email:
proflex@fep.fraunhofer.de

pro flex 2019

ROLL-TO-ROLL COATING OF FLEXIBLE MATERIALS

FOCUS 2019: TECHNOLOGY CROSS-OVER

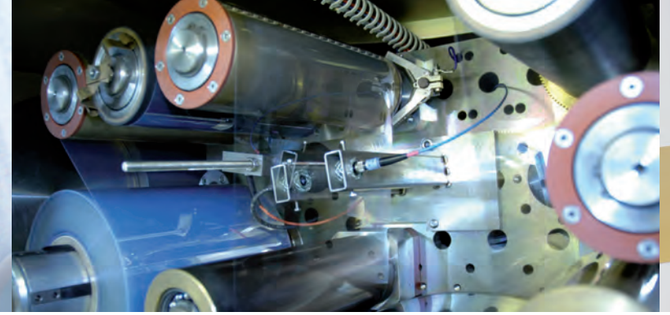
PROGRAM

ABOUT THE CONFERENCE

Roll-to-roll processing and coating of flexible materials like polymer films, metal foils, ultra-thin glass, membranes, and textiles is a growing industry and an essential process step in the production of a wide variety of important industrial products:

- packaging films
- solar control window films
- batteries
- capacitors
- touch-screens
- flexible OLED lighting and signage
- RFIDs
- anti-counterfeiting labels
- solar cells
- future flexible displays
- building envelope components
- and many more

Increasing requirements in the end-user market pose a constant challenge for the roll-to-roll industry. Fraunhofer FEP supports its partners to overcome these challenges by providing R&D services that are needed to keep pace with this fast developing and innovative technology. It is therefore an obligation, honor and a great pleasure for us to host the ***pro flex 2019***.
The goal of the ***pro flex 2019*** is to gather partners along the value chain including equipment suppliers, film manufacturers, users of roll-to-roll equipment, converters, end-users of flexible materials as well as R&D institutions. Join local and international experts in the 15th year of pro flex, held in the "Vacuum Valley" of Dresden. The conference combines scientific state-of-the-art presentations with a relaxing atmosphere and plenty of time for face-to-face discussions. For the first time, the conference program is complemented by an afternoon tutorial on roll-to-roll technologies on November 4.
We, at Fraunhofer FEP, are dedicated to make the ***pro flex 2019*** worthwhile to the audience and presenters.

PROGRAM

AFTERNOON TUTORIAL | MONDAY, NOVEMBER 4

13.00 **Light Lunch and Registration**

14.00 **Tutorial Session 1**

15.30 **Coffee break**

16.00 **Tutorial Session 2**

17.00 **End**

DAY 1 | TUESDAY, NOVEMBER 5

09.30 **Registration**

10.30 **Welcome Adress**
Dr. Nicolas Schiller, Fraunhofer FEP

10.35 **Materials and surfaces - trends and challenges**
Dr. Ralf Fellenberg, VDI Technologiezentrum GmbH

10.55 **Enhancing the sustainability of flexible packaging in the Circular Economy**
Vicent Martínez Sanz, AIMPLAS

11.15 **Paper based sustainable food packaging**
Prof. Lorenzo Pastrana,
International Iberian Nanotechnology Laboratory

11.35 **Optimization of Bond Strength & Barrier Performance for Ultra-High Web Speed Metallizing**
Neil Morrison, Applied Materials, Inc.

11.55 **Lunch**

13.25 **New trends in R2R coating equipment**
Dr. Holger Pröhl, Von Ardenne GmbH

13.45 **Networking along the value chain**
Maik Krüger,
Kampf Schneid- und Wickeltechnik GmbH & Co. KG

14.05 **A versatile and flexible roll-to-roll vacuum pilot line tailored to industrial needs**
Louise Samain, CRM Group

14.25 **Unique Vacuum R2R Metallized Coloured Films without using Inks or Dyes**
Prof. Nadir Ahmed, Idvac Ltd.

14.45 **Coffee Break**

15.30 **PET substrates for Flexible Electronic Applications**
Valentijn von Morgen, DuPont Teijin Films Ltd.

15.50 **R2R processes for Wearables/Results of WAFT project**
Prof. Harish Bhaskaran, University Oxford

16.10 **Gas monitoring for the enhanced control of web treatment and vacuum coating processes**
Dr. Dermot Monaghan, Gencoa Ltd

16.30 **NOVION®: In-line monitoring using a novel vacuum gauge**
Dr. Klaus Bergner,
VACOM Vakuum Komponenten & Messtechnik GmbH

16.50 **Trends in monitoring the integrity of transparent conductive coatings**
Marcus Klein, SURAGUS GmbH

17.10 **Closing of Day 1**
Dr. Nicolas Schiller, Fraunhofer FEP

17.30 **Get together and Dinner**
Take part in our evening event!

21.30 **End**

DAY 2 | WEDNESDAY, NOVEMBER 6

09.20 **Fast and inline-capable determination of the water vapor transmission rate (WVTR) of barrier webs using hyperspectral imaging (HSI)**
Dr. Wulf Grählert, Fraunhofer IWS

09.40 **A way of 'Visualization of Force'**
Kei Hyodo, Yuasa System Co., Ltd.

10.00 **High temperature processing of ultra thin glass**
Takayoshi Saitoh, Nippon Electric Glass Co., Ltd.

10.20 **Coffee Break**

10.50 **R2R processes in battery production**
Dr. Stefan Koller, VARTA Micro Innovation GmbH

11.10 **Ferroelectric Polymer Sensors for Flexible Electronics**
Dr. Barbara Stadlober/Dr. Martin Zirkl,
Joanneum Research Forschungsgesellschaft mbH

11.30 **SmartMesh® – A transparent metal mesh electrode for printed electronics fabricated on industrial scale**
Dr. Christoph Hunger, Papierfabrik Louisenthal GmbH

11.50 **Manufacturing challenges for conformable OLED lighting**
Dr. Norman Bardsley, Bardsley Consulting

12.10 **OLED und Printed Electronics in Packaging**
Marcin Ratajczak, INURU GMBH

12.30 **Lunch**

13.30 **Organic Photovoltaics**
Dr. Martin Pfeiffer, heliatek GmbH

13.50 **Wet Roll to Roll improvement in OPV**
François Allais, ARMOR SAS

14.10 **Late-stage customization of organic photovoltaics**
Dr. Sebastian Meier, OPVIUS GmbH

14.30 **Closing Remarks**
Dr. Nicolas Schiller, Fraunhofer FEP

14.45 **Lab Tours**
In cooperation with the Fraunhofer institutes at the Campus Dresden Winterbergstraße we encourage you to join one of the following Lab Tours:

- Material Characterization and Quality Control
- Lightweight Engineering
- Battery Technologies

17.00 **End**

PROGRAM BOARD

Dr. Nicolas Schiller
Program Chair

Dr. Matthias Fahland
Dr. John Fahlteich
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