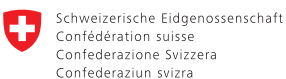


EMPA – MATERIALS AND TECHNOLOGIES FOR A SUSTAINABLE FUTURE

As an interdisciplinary research institute of the ETH Domain, Empa, the Swiss Federal Laboratories for Materials Science and Technology, conducts cutting-edge materials and technology research. Empa's R&D activities focus on meeting the requirements of industry and the needs of society, and thus link applications-oriented research with the practical implementation of new ideas. As a result, Empa is capable of providing its partners with customized services and solutions that not only enhance their innovative edge and competitiveness, but also help to improve the quality of life for the public at large.

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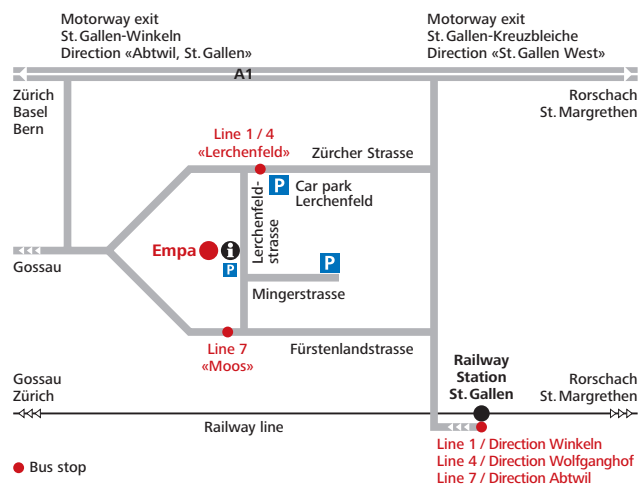


Swiss Confederation

Commission for Technology and Innovation CTI

GENERAL INFORMATION

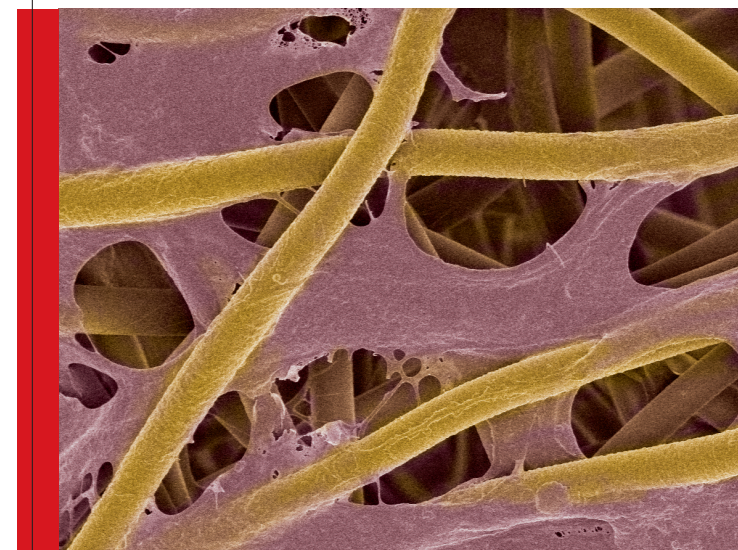
Location	Empa, St. Gallen Lerchenfeldstrasse 5 Room C 3.11
Costs	CHF 250.– for participants from Industry CHF 150.– for participants from Academia Workshop materials, lunch and refreshments included
Registration	www.empa.ch/e-spinning
Deadline	June 2, 2016
Cancellation	For cancellations after June 2, 2016, 50% of the fee will be charged. After June 9, 2016, or in case of non appearance we will charge the full fee. A substitute will be accepted anytime.
Contact	Empa, St. Gallen Dr Giuseppino Fortunato Phone +41 58 765 76 77 giuseppino.fortunato@empa.ch www.empa.ch
How to get here	Please do use public transport. There is only very limited parking available.



WORKSHOP

Electrospinning

Science and Applications



Empa, St. Gallen, Lerchenfeldstrasse 5
Thursday, June 16, 2016, from 9:00 to 17:00

Online registration: www.empa.ch/e-spinning

TOPIC

Nano- to submicron-scaled fiber membranes produced from electrospinning procedures incorporate highly relevant materials properties such as high surface-to-volume ratio, well-defined porosities and distinct transport properties. The electrospinning process itself is based on the application of electrostatic potentials to polymeric systems for fiber formation and is typically operated at room temperature conditions.

It is expected that the use of sub-micron and nano-scaled fiber membranes will allow novel functions that can be used for a variety of products and applications. Therefore, the aim of this workshop is to address aspects of the electrospinning technique as well as fiber and membrane properties to relevant applications in fields which include textiles, the medical sector and the field of sensors. Both, already implemented electrospinning technologies as well as novel fabrication equipment and products will be presented and discussed.

TARGETED AUDIENCE

The workshop is open for everybody interested in novel technologies and applications, with main focus on applied electrospinning techniques and respective fiber and membrane properties.

OBJECTIVES OF THE WORKSHOP

This event wants to bring together stakeholders from both applied material sciences as well as industries interested in manufacturing system, engineering and nanofiber fabrication. Recent developments of the design of advanced electrospinning processes based on both lab-scale and industrial plants will be presented. Moreover, the physico-chemical properties of electrospun fibers and membranes and their behaviour e.g. in biological environments will be a point of discussion together with their use in existing products in today's global market.

PROGRAM

- 9:00 **Welcome**
Dr René Rossi, Empa, Switzerland
- 9:15 **COST Action MP1206 on electrospinning – past achievements and future outlook**
Dr Erich Kny
- 9:35 **Functional electrospun nanofibers and their potential applications**
Prof. Tamer Uyar, University Bilkent, Turkey
- 10:05 **Dye-functionalized electrospun nanofibers for colorimetric sensors**
Prof. Karen De Clerck, University Ghent, Belgium
- 10:35 **Break**
- 11:00 **Wet-laid process – a new chance for electrospun nanofibers**
Prof. Andreas Greiner, University Bayreuth, Germany
- 11:30 **Applications of ultralight 3D electrospun nanofiber sponges**
Dr Christian Adlhart, ZHAW Wädenswil, Switzerland
- 12:00 **Lunch Break**
- 13:00 **Transport and drug releasing properties of electrospun membranes**
Dr Giuseppino Fortunato, Empa, Switzerland
- 13:30 **Electro-hydrodynamic atomization of liquids for material processing: history, present and future**
Prof. Ignacio G. Loscertales, Yflow and University of Málaga, Spain
- 14:00 **Functional nanofibrous scaffolds combined with stem cells for advanced biomedical devices and therapies**
Prof. N. Neves, University Minho, Portugal
- 14:30 **Break**
- 15:00 **Nanofiber covered stents**
Daniel Wintsch, Biotronik, Switzerland
- 15:30 **Nanospider™ electrospinning – industrial nanofiber production**
Dr Ivan Ponomarev, ElMarco, Czech Republic
- 16:00 **Apéro**

REGISTRATION

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You will receive a confirmation by e-mail.