

ORGANIZERS

Dr Patrik Schmutz (Empa, Dübendorf) has a degree in experimental physics and is currently group leader for "Functional Surfaces in Reactive Environments" in the Empa „Joining Technologies and Corrosion“ laboratory; he is also ETHZ Lecturer and president of the Swiss Society for Surface Treatment (SGO-SST).

Dr Stefano Mischler (EPFL, Lausanne) has a degree in materials science and is currently MER (Maitre d'enseignement et de recherche) and head of the Tribology group at the EPFL focused on modern aspects of tribology and surface science and technology including surface chemical effects in tribology.

Dr Laetitia Philippe (Empa, Thun) has a degree in experimental physics and is currently group leader for "Electrochemical process for micro and nanostructuring" in the Empa "Laboratory for Mechanics of Materials and Nanostructure"; she is also EPFL Lecturer.

Endorsement: Empa Academy, Empa, EPFL, Swiss Society for Material Science and Technology (SVMT), Swiss Society of Surface Treatments (SGO-SST), International Corrosion Council (ICC)

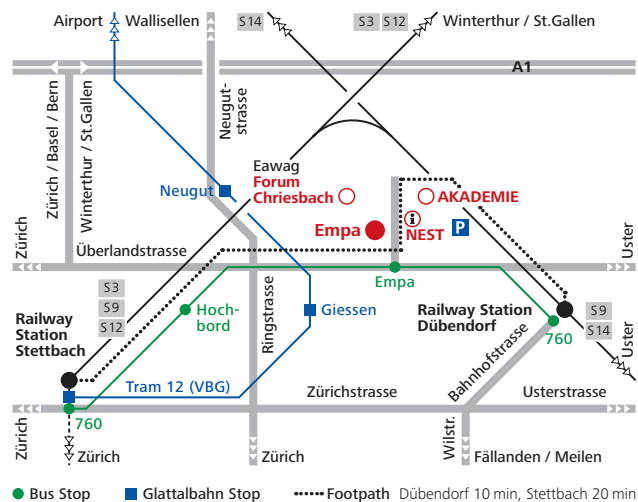
EMPA – MATERIALS AND TECHNOLOGIES FOR A SUSTAINABLE FUTURE

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.

GENERAL INFORMATION

Location	Empa, Dübendorf Überlandstrasse 129 AKADEMIE II
Costs	The event is free of charge for the participants (except lunch costs to be paid by the participants).
Registration	www.empa-akademie.ch/corrosion
Deadline	January 20, 2017
Contact	Empa Dr Patrik Schmutz Laboratory for Joining Technologies and Corrosion Phone +41 58 765 48 45 patrik.schmutz@empa.ch www.empa.ch
How to get here	Please do use public transport. There is only very limited parking available.

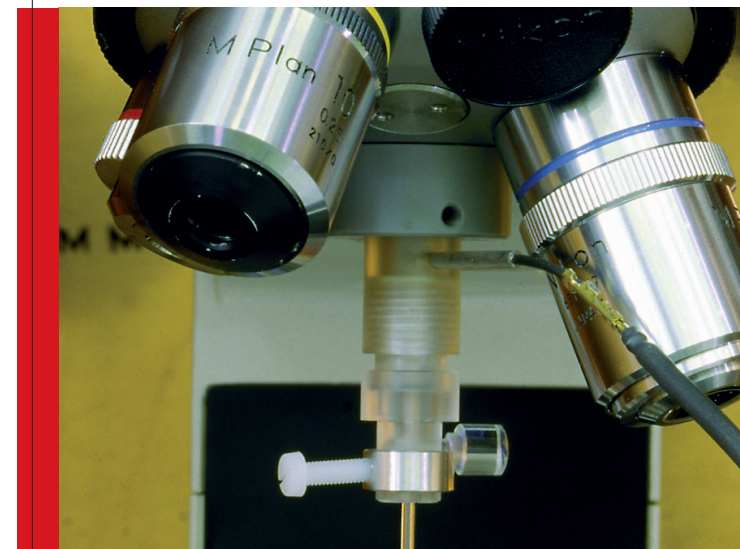
MAP



WORKSHOP

Swiss Corrosion Science Day 2017

Corrosion Research: Challenges, Opportunities and Applications



Empa, Dübendorf, Überlandstrasse 129
Wednesday, January 25, 2017
from 10:00 to 16:00

Online registration:
www.empa-akademie.ch/corrosion

TOPIC

Corrosion related failures are still important issues in industrial products and applications. Besides the more “classical” engineering problems known for decades, new questions related for examples to medical implant applications are now in focus of the corrosion research. Any new materials/component should furthermore also be checked for their corrosion resistance in their operation environment. The workshop will present selected examples of the state of the art of scientific research carried out in Switzerland in the field of corrosion with emphasis on scientific methodologies. Innovative directions in research and future technological development in academia and industry will also be addressed.

TARGET AUDIENCE

The workshop is intended for scientists and engineers from industry and academia that are interested and/or confronted with corrosion related issues. A special focus this year is on presenting activities of students working in the field.

AIMS

This workshop aims at informing about the current projects and activities in Swiss research institutes. A further goal is to bring together scientists actively involved in corrosion research in companies and research institutes and to foster scientific and technological exchanges. A central aspect of the workshop is that it will be established on a regular basis and should bring together an increasing number of persons from the different Swiss institutions (industries, University of applied science, Universities and ETH Domain) to actively and regularly participate. In future, joint projects, topical meetings and strategic collaborations should be the output of this “corrosion science” group.

PROGRAM (Confirmed speakers)

- 10:00 Registration and Welcome Address
- Micro- and nanocapillary electrochemical characterization
Dr T. Suter, Empa
- Optical properties of highly ordered alumina
Dr L. Philippe, Empa, Thun
- Barrier anodic aluminium oxide and their properties
Dr F. Evangelisti, Empa
- Corrosion mechanisms of tin
F. Cova, EPFL
- 12:00 Lunch break
- 13:30 In-vivo corrosion of a CoCrMo alloy
Prof. A. Igual, EPFL
- Microstructure-corrosion relation of biodegradable Mg-Zn-Ca-lean alloys
M. Cihova, ETHZ/Empa
- Tribocorrosion of artificial hip joints: phenomena na predictive models
C. Shoufan, EPFL
- Crevice and stress corrosion cracking of DLC coated implant interlayers
E. Ilic, Empa
- 16:00 Concluding remarks and Networking

Important: Considering the goal of this workshop to build up a Swiss corrosion network, space for at least two additional contributions (20 Minutes + 5 minutes questions each) has been reserved in the program schedule. Any interested persons can contact directly patrik.schmutz@empa.ch.

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