

# Swiss Corrosion Science Day 2025

24. April 2025 10:15 – 16:30 h

at EPFL, Lausanne, Switzerland

Organized by



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an EFC event



On the occasion of the World Corrosion Awareness Day

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## Programme

- 10:15 **Welcome and introduction**  
Prof. Ueli Angst, ETH Zurich, Institute for Building Materials  
Dr. Stefano Mischler, EPFL, Institute of Materials, Tribology and Interface Chemistry Laboratory
- 10:30 **Session 1**  
Moderator: Dr. Noémi Ott: OST, Buchs
- 10:30 **Disposal of radioactive waste in Switzerland: from glaciology to corrosion and everything in between**  
Nikitas Diomidis  
*Nagra, National Cooperative for the Disposal of Radioactive Waste  
Hardstrasse 73, 5430 Wettingen*
- 11:00 **Navigating the complexities of Fe(II) and Fe(III) redox state interactions in understanding corrosion of iron in porous media**  
Shishir Mundra<sup>1</sup>, Mohit Pundir<sup>1</sup>, Barbara Lothenbach<sup>2</sup>, David S Kammer<sup>1</sup>, Ueli M. Angst<sup>1</sup>  
<sup>1</sup>*ETH Zürich, Institute for Building Materials, Zürich, Switzerland*  
<sup>2</sup>*EMPA, Laboratory for Concrete & Asphalt, Dübendorf, Switzerland*
- 11:30 **Initiation of Pitting Corrosion on Stainless Steels and its Relation to Passive Film Stability**  
Claes O.A. Olsson  
*Claes Olsson, Gothenburg Sweden*
- 12:00 **Understanding Corrosion via Modeling: Recent Advances and Perspectives**  
Shahab Eghbali  
*COMSOL Multiphysics GmbH  
Zurich*
- 12:30 **Lunch & posters**

14:00 **Session 2**

Moderator: Dr. Stefano Mischler: EPFL, Lausanne

14:00 **Corrosion of orthopedic materials as a key factor for personalized health care**

Yueyue Bao<sup>1</sup>, Anna Igual Muñoz<sup>1</sup>, Brigitte M. Jolles<sup>2</sup>, Stefano Mischler<sup>1</sup>

<sup>1</sup>*Tribology and Interface Chemistry Laboratory, École Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland*

<sup>2</sup>*BioMotion Lab, Lausanne University Hospital and University of Lausanne (CHUV-UNIL), CH-1011 Lausanne, Switzerland*

14:30 **Toward a mechanistic understanding of trace-element influence on corrosion at the magnesium-biology interface**

M.Hannard<sup>1</sup>, M.Cihova<sup>1</sup>, A.Wichser<sup>2</sup>, D.Bleiner<sup>2</sup>, P.Schmutz<sup>1</sup>

<sup>1</sup>*Laboratory for Joining Technologies and Corrosion, Empa - Swiss Federal Laboratories for Materials Science and Technology, Dübendorf 8600, Switzerland*

<sup>2</sup>*Laboratory for Advanced Analytical Technologies, Empa - Swiss Federal Laboratories for Materials Science and Technology, Dübendorf 8600, Switzerland*

15:00 **Effect of surface treatment on the anodizing of SLM-produced AlSi10Mg alloy**

Rene Pfister<sup>1</sup>, Noémie Ott<sup>1</sup>

<sup>1</sup>*Eastern Switzerland University of Applied Sciences, Buchs, Switzerland*

15:30-16:30: **Coffee break & Poster session**

15:45 **General assembly meeting of the Swiss Corrosion Network**

(only for members of the Swiss Corrosion Network, upon invitation to be distributed)

## Venue & Directions

The event will be held at Starling Hotel, Rte Cantonale 31, 1025 Saint-Sulpice, Switzerland.  
No options to attend online are planned to be provided.

### How to find us:

It is strongly recommended to travel by public transport, as there is hardly any parking available.

From Lausanne railway station Tram M1 (direction Renens) stop at EPFL.

From Renens railway station Tram M1 (direction Lausanne Flon) stop at EPFL.

From the EPFL metro stop follow the red arrow, the venue is 10-minute walk.

