



# **71st Annual Meeting**

of the  
International Society of Electrochemistry

Belgrade, Wednesday 31 August to Friday 4 September 2020

Symposium 11  
Oral presentation program

# Wednesday 2 September 2020

## s11 Corrosion and corrosion protection strategies

*Chairman : Vincent Vivier*

09:00 to 09:40 Keynote

**Arjan Mol** (Department of Materials Science and Engineering, Delft University of Technology, Delft, Netherlands)

[From Inhibitor Screening to Advanced Characterization of Active Protective Coatings](#)

09:40 to 10:20 Keynote

**Delphine VEYS-RENAUX** (Institut Jean Lamour, Université de Lorraine - CNRS, Nancy, France), Emmanuel Rocca

[Anodizing of various metallic substrates and alloys over a large potential range](#)

10:20 to 10:40 Invited

**Fatima Montemor** (CQE, INSTITUTO SUPERIOR TECNICO, LISBOA, Portugal)

[Ce-Containing pH Sensitive Additives for Corrosion Inhibition of Epoxy Coated Steel](#)

10:40 to 11:00 Invited

**Michael Rohwerder** (Interface Chemistry and Surface Engineering, Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany)

[Strategies for enhancing Corrosion Protection by Organic Coatings](#)

11:00 to 11:20

**Mikhail Zheludkevich** (Corrosion and Surface Technology, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany)

[Combating self-corrosion of Mg anodes via synergistic inhibition](#)

11:20 to 11:40

**Zeliha Ertekin** (Chemistry, Hacettepe University, Ankara, Turkey), Erhan Karaca, Merve Ugur, Kadir Pekmez, Nuran Ozçiçek Pekmez

[Room Temperature Electrodeposition of Titanium sub-oxides on Mild Steel Electrode towards Corrosion Protection](#)

11:40 to 12:00 Invited

**X. Ramón Nóvoa** (Chemical Engineering, Universidade de Vigo, Vigo, Spain), Antonio Collazo, Belén Díaz, Carmen Pérez

[Electrochemical Approach to Durability of Reinforced Concrete Structures](#)

12:00 to 12:20

**Sanja Martinez** (Department of Electrochemistry, Faculty of Chem. Eng. & Tech., Univ. of Zagreb, Zagreb, Croatia), Ivana Soic

[Novel Non-Liquid Electrolytes for EIS Characterization of Surface Layers on Heritage and Art Objects](#)

# Thursday 3 September 2020

## s11 Corrosion and corrosion protection strategies

*Chairman : Vincent Vivier*

14:00 to 14:40 Keynote

**Srdjan Nesic** (Chemical and Biomolecular Engineering, Ohio University, Athens, USA), Aria Kahyarian, Bruce Brown

[A Unifying Mechanistic Model of Mild Steel Corrosion in Weak Acid Aqueous Solutions](#)

14:40 to 15:20 Keynote

**Gerald Frankel** (Materials Science and Engineering, The Ohio State University, COLUMBUS, USA), Tianshu Li, Sarita Sahu

[The Nature and Role of Salt Films in Pits](#)

15:20 to 15:40 Invited

**Koji Fushimi** (Faculty of Engineering, Hokkaido University, Sapporo, Japan), Tomomi Kanazawa, Akihiro Fujimura, Yuichi Kitagawa, Yasuchika Hasegawa, Takashi Doi

[Effect of intentional convection on passivation of Fe-6Cr surface in acidic Na<sub>2</sub>SO<sub>4</sub> solution](#)

15:40 to 16:00

**Kei Sakata** (Graduate School of Engineering, Hokkaido University, Sapporo, Japan), Bilal Muhammad, Masatoshi Sakairi

[Local Electrochemical Measurement with 3D Printed Solution Flow-type Microdroplet Cell](#)

16:00 to 16:20 Invited

**Ricardo M. Souto** (Department of Chemistry, University of La Laguna, La Laguna (Tenerife), Spain)

[Applications of scanning electrochemical microscopy for high-resolution imaging and chemical sensing of corrosion reactions and corrosion protection strategies](#)

16:20 to 16:40

**Michele Curioni** (Department of Materials, University of Manchester, Manchester, United Kingdom), Meng Lyu, Fabio Scenini

[Corrosion testing and electrochemical measurement under variable pH: experimental setup and examples of applications](#)

16:40 to 17:00

**Liang Liu** (LCPME, CNRS-Université de Lorraine, Nancy, France), Mariela Brites-Helú, Ning Dang

[Scanning Gel Electrochemical Microscopy \(SGECM\) for Corrosion: Methodology, Instrumentation and Prospects](#)

17:00 to 17:20 Invited

**Michele Fedel** (Department of Industrial Engineering, University of Trento, Trento, Italy), Flavio Deflorian, Caterina Zanella, Luca Ferrari

[Effect of the Synthesis Parameters of in situ growth LDHs on the filiform corrosion susceptibility of painted AA5005](#)

17:20 to 17:40

**Benny Wouters** (Electrochemical and Surface Engineering, Vrije Universiteit Brussel, Brussels, Belgium), Negin Madelat, Raf Claessens, Ehsan Jalilian, Guy Van Assche, Tom Hauffman, Herman Terryn, Annick Hubin

[Identification of lateral water diffusion in organic coatings using time-resolved instantaneous electrochemical impedance spectroscopy](#)