

PROGRAMME AT A GLANCE

Sunday, 15 th June
17.00-19.00: Registration
20.00: Welcome reception

Monday, 16 th June	
8.50-9.10: Welcome	
9.10-9.50: V. Vivier (Invited lecture)	
Operando combination of techniques for studying corrosion processes	
Operando electrochemical techniques	9.50-10.10: H. Hubin Designing sustainable materials through a combined modelling and operando experimental approach
	10.10-10.30: M. Dabiri Havigh Application of operando ORP-EIS for studying anion incorporation during anodizing
	10.30-10.50: C. Lamloum (eligible for best presentation award) Study of corrosion of aluminum by coupling acoustic and electrochemical measurements
	10.50-11.20: Coffee break
Coupling between electrochemical and non-electrochemical methods	11.20-11.40: B. Sultan Development of a novel coupled analytical approach combining Atomic Emission Spectro electrochemistry (AESEC) and Electrochemical Quartz Crystal Microbalance (EQCM) techniques
	11.40-12.00: A. Sotniczuk Corrosion behavior of new orthopaedic alloys designed based on Ti-Mo system: real-time AESEC dissolution analysis combined with ex-situ TEM characterization
	12.00-12.20: F. Di Franco Synergistic use of electrochemical and photoelectrochemical methods to study the corrosion behaviour of TiAlV alloys
	12.20-12.40: J.C. Salvador Fernandes EIS, photoelectrochemical and ellipsometric study of niobium pentoxide deposited on Ti-6Al-4V alloy by DC reactive sputtering
	12.40-13.00: K. Fushimi Online ICP-OES measurements for investigating corrosion of Al-10Si alloys in chloride environment
	13.00-14.30: Lunch
Passivity and localized corrosion	14.30-14.50: P. Marcus Passivation and localized corrosion of high entropy alloys
	14.50-15.10: K. Ogle The role of alloying elements in the spontaneous passivation of CoCrFeNi multi-principal element alloy (MPEA) family
	15.30-15.50: Y. Hou Investigating the role of Cu and Mo in the corrosion resistance and passivation behavior of equiatomic CoCrFeNi multiprincipal element alloys (MPEA) using in situ detection methods
	15.50-16.10: A. Nasiri Unveiling passivity response of arc directed energy deposited 308 austenitic stainless steel in 0.1 M sulfuric acid solution
	16.10-16.30: O. Devos Corrosion study of wire arc additively manufactured SS 316L – Influence of the mechanical deformation and comparison with conventional 316L
	16.30-16.50: M. Leonardi (eligible for best presentation award) Corrosion behavior of pure Ta in a concentrated and hot nitric acid environment
	16.50-17.30 POSTER SESSION 1 and Coffee break
	17.30-17.50: M. Cabrini Hydrogen solubility and distribution inside spheroidal cast iron
Corrosion mechanisms	17.50-18.10: N. Macháčková (eligible for best presentation award) Efficiency of corrosion-induced hydrogen entry into steel
	18.10-18.30: L. Cupertino-Malheiros New insights into the hydrogen evolution reaction and absorption kinetics using multiple electrochemical techniques
	18.30-18.50: C. Pérez The galvanic couple carbon steel-shape memory steel in media of different aggressiveness
	18.50-19.10: M. Motta (eligible for best presentation award) Chitosan as a corrosion inhibitor for gray cast iron and its role in mitigating the stiction phenomenon in automotive braking systems
	20.00: Dinner

Tuesday, 17 th June	
8.50-9.30: M.E. Orazem (Invited lecture)	
On interpretation of impedance spectra	
Electrochemical impedance spectroscopy	9.30-9.50: S. Martinez AI-aided EIS method for streamlined in situ corrosion rating of bioimplant metallic materials
	9.50-10.10: B. Tribollet EIS analysis of oxide layers developed on nickel-based alloy steam generator tubes during exposure to primary water
	10.10-10.30: M. Itagaki Impedance analysis on localized corrosion of copper with transmission line model
	10.30-10.50: A. Gabryelczyk Electrochemical impedance spectroscopy for characterization of TiO ₂ layers: semiconducting and corrosion properties
10.50-11.20: Coffee break	
Electrochemical impedance spectroscopy	11.20-11.40: Z. Jiryaisharahi Exploring the diffusion kinetics of water and ions through organic coatings using ORP-EIS
	11.40-12.00: D. Jero Water uptake and molecular mobility in polyamide coatings: A comparison of 3- and 4-electrode EIS experiments
	12.00-12.20: M. Sakairi Investigation into corrosion behavior of metals in artificial sea water at low temperature with electrochemical methods
	12.20-12.40: Y. Morozov Electrochemical Frequency Modulation (EFM) technique to quantify the corrosion of aluminium and magnesium alloys
	12.40-13.00: L. Mezzomo Correlating electrochemical noise measurements and neutral salt spray tests on primary and recycled anodized aluminum-silicon alloys
13.00-14.30: Lunch	
Mechanisms and electrochemical corrosion sensors	14.30-14.50: H. Terry The critical role of electrolyte evolution in atmospheric corrosion sensor performance
	14.50-15.10: P. Linhardt Electrochemistry in remote places – MICRA-buoy as an instrumented probe for assessing the corrosiveness in natural waters
	15.30-15.50: M.L. Zheludkevich Optimising discharge of Mg anode through combination of modelling with electrochemical techniques
	15.50-16.10: S. Lamaka Contribution of oxygen reduction reaction to the cathodic processes during magnesium degradation in selected complex environments
	16.10-16.30: N. Madelat Real-time monitoring of the influence of current density and temperature on performance of Pb-Ag anodes in zinc-electrowinning systems
	16.30-16.50: J. Han Revisiting Ni dissolution in sulfuric acid using element-resolved electrochemical impedance spectroscopy
	16.50-17.30 POSTER SESSION 2Coffee break
	17.30-17.50: E. Martínez-Pañeda Virtual Electro-Chemo-Mechanical experiments to unravel and predict localized corrosion
Modeling and machine learning	17.50-18.10: M. Meeusen The coupling of experiments and finite element models for the prediction of corrosion phenomena
	18.10-18.30: V. Bongiorno A machine learning approach for the interpretation of electrochemical data from corroding systems
	18.30-18.50: N. Acevedo Local and element-resolved electrochemical setup via atomic emission spectroelectrochemistry coupled with scanning flow cell: Toward high-quality element-resolved datasets for machine-learning based alloy design
	18.50-19.10: V. Shkirskiy Leveraging unsupervised machine learning for advanced electrochemical analysis
	20.00: Dinner

Wednesday, 18 th June	
8.50-9.30: A.W. Hassel (Invited lecture)	
Scanning droplet cell microscopy as a powerful tool in corrosion research	
Local electrochemical techniques	9.30-9.50: E. Kurchavova Electrochemical screening method in ionic liquid microdroplet coupled with goniometer measurement
	9.50-10.10: G. Williams New insights into the application of scanning vibrating electrode technology to investigate the localised corrosion of magnesium
	10.10-10.30: A.C. Bastos The influence of vibration and probe movement on SVET measurements
	10.30-10.50: L.F.P. Dick In situ current mapping during the crevice corrosion of stainless steel
	10.50-11.20: Coffee break
Corrosion and corrosion protection	11.20-11.40: M.-G. Olivier Correlations between composition, microstructure and corrosion behavior of AM AlSi7Mg0.6 and AM 7075-Ti and alloys from selective laser melting (SLM): Electrochemical approach to local and global phenomena
	11.40-12.00: A. Cristoforetti Exploring the corrosion resistance and microstructural evolution of textured aluminum alloys using TMEMM
	12.00-12.20: M. Magnan (eligible for best presentation award) Corrosion evolution and protection provided by the industrial trivalent chromium process of aluminium-copper and aluminium-copper-lithium alloys
	12.20-12.40: H.G. de Melo Study of the corrosion resistance of 2024-T3 aluminum alloy anodized in TSA with the addition of graphene oxide
	12.40-13.00: T. Liao (eligible for best presentation award) Surface modification of anodised aluminium with fibrous silica for enhanced corrosion resistance
13.00-14.30: Lunch	
15.00-18.30: Visit to the Murano Glass Museum	
20.00: Gala dinner	



organized by:



with the endorsement of:



Thursday, 19 th June	
Corrosion and corrosion protection	8.30-8.50: I. De Graeve Electrochemical conversion of additively manufactured aluminium alloys
	8.50-9.10: S. Akbarzadeh (eligible for best presentation award) PEO coatings for additively manufactured AlSi7Mg0.6 alloy: Unveiling the influence of surface morphology
	9.10-9.30: K.A. Yasakau Corrosion degradation mechanisms of PEO-coated aluminum alloys studied by electrochemical impedance spectroscopy
	9.30-9.50: O. Gharbi Exploring cation - anion synergy of environmentally friendly ionic liquids for the corrosion inhibition of Al alloys
	9.50-10.10: R. Kaddah (eligible for best presentation award) Electrochemical characterization of corroded 2024-T3 alloy treated with environmentally friendly carboxylic acids for aerospace applications
	10.10-10.30: F.J. Rodriguez-Gómez Conversion coating with neodymium additions for AS21 alloy for the automotive industry through a deep eutectic solvent (DES)
10.30-11.00: Coffee break	
Corrosion and corrosion protection	11.00-11.20: A. Kraš (eligible for best presentation award) Response surface methodology for zirconium conversion coating optimisation on cold-rolled steel, Zn, and AA5754 substrates
	11.20-11.40: J.M. Vega Mg-Al-LDH pigments dried by lyophilization and loaded with different corrosion inhibitors: tailored corrosion evaluation by electrochemical techniques
	11.40-12.00: I.V. Aoki Lithium and Cerium (III) salts loaded in epoxy coating on galvanized steel to improve corrosion resistance
	12.00-12.20: E. Rahimi Enhanced microstructural, nanomechanical, and corrosion properties of optimized CrN/Cr coatings on carbon steel
	12.20-12.40: A. Nasiri (eligible for best presentation award) Ion implantation: A breakthrough for superior corrosion resistance and sustainable surface solutions
	12.40-13.00: D.R. Ceratti Are halide perovskites corrosive materials? Challenges and insights into the corrosion behaviour of halide perovskite solar panels
13.00-14.30: Closing and lunch	

sponsored by:



POSTER SESSION 1

A. Bastos Galvanic interactions of copper with oxide films and differential temperature
J. Lamas In-situ monitoring of pitting corrosion in carbon steel for offshore structures using electrochemical techniques
H. Laieghi (eligible for best poster award) Synergistic drivers of intergranular corrosion in SLM AISi10Mg alloys
G. Lin Tracking hydrogen in metals: permeation and thermal desorption study using a deuterium tracer
L. Gritti (eligible for best poster award) Simplified methodology for estimating diffusion coefficient and hydrogen uptake via data driven optimization approach
K. Nomura (eligible for best poster award) Acceleration of atmospheric corrosion rate of iron at low temperature
J. Yuan Real-time monitoring of oxygen evolution reaction and elemental dissolution kinetics via AESEC-respirometry: Corrosion mechanisms for bipolar plates in proton exchange membrane electrolysis
H.G. de Melo Impact of microstructure on the corrosion resistance of a novel aluminium crossover alloy
D. Asperti (eligible for best poster award) Effect of heat treatment on corrosion resistance of AISi9Cu3 alloy produced by laser powder bed fusion
A. Simons Innovative methodology for the use of electrochemistry in corrosion research in heat pumps using a H ₂ O-NH ₃ coolant
B. Puga Study of nitric acid reduction mechanisms on a silicon-enriched austenitic stainless steel under heat transfer conditions: a technological challenge
M. Mohammedture (eligible for best poster award) The effect of selective dissolution on electrochemical impedance spectra of 3D-printed aluminum alloys subjected to chloride-induced corrosion
T. Cordoba Corrosion resistance of Ferritic Stainless Steels pickled by laser
M. Zanocco Electrochemical behaviour of 42CrMo4 QT steel in commercial and pure methanol
W. A. Khan (eligible for best poster award) Electrochemical methods and microstructural characterization to investigate the corrosion resistance properties of 316L samples printed through Binder Jetting and sintered using different furnaces
H.G. de Melo Comparing the corrosion resistance in the as-printed condition of 17-4 PH stainless steel obtained from two additive manufacturing technologies
C. Hejjaj Investigating the impact of partitioning behavior of a C16 surfactant on the corrosion protection of steel in a CO ₂ -saturated environment

POSTER SESSION 2

M. Macht (eligible for best poster award) Electrochemical behavior of steel in alternative cement mixtures: insights into corrosion and passivation dynamics
B. Díaz Four-electrode impedance measurement for the corrosion monitoring of steel in concrete
A. Makogon (eligible for best poster award) Automated hydrogen permeation analysis using machine learning-enhanced optical microscopy
M. Gamba Producing plasma electrolytic oxidation (PEO) corrosion resistant coatings on aluminium 2024 texturized with a riblet-like surface for aeronautical applications
N. Kovač Corrosion protection of AZ31 magnesium alloy using sol-gel coating for biomedical applications
A. Olesiński Evaluation of corrosion resistance and mechanical properties of particle-doped coatings produced in plasma electrolytic oxidation under soft-sparking regime
O. Bannour (eligible for best poster award) Electrosynthesis of Zn-M (M=Cu, Sn, Mg, Al) protective coatings for enhanced steel corrosion resistance
B. Díaz Development of 3D conductive cement-based anodes for impressed current cathodic protection of reinforced concrete
H.G. de Melo Corrosion performance of AA7075-T6 alloy anodizing in a sulphuric-tartaric acid bath and polymer sealing
Y. Morozov The effect of cerium organophosphate corrosion inhibitor on water absorption in epoxy-based coatings assessed by electrochemical impedance
E. De Ketelaere Comprehensive electrochemical characterization of silicate-based corrosion inhibition
S. Al Awadh (eligible for best poster award) Detection of localized corrosion in steel samples immersed in soil using electrochemical noise and shot noise analysis
E. Tubaro (eligible for best poster award) Electrochemical evaluation of formulation parameters in epoxy primers for fouling-release systems resistant to cathodic disbonding on bronze alloys
D. Veys-Renaux Sealing performances on anodic layers: comparative evaluation by electrochemical impedance spectroscopy and standard tests
D. Parasińska Amplitude-modulated excitation in nonlinear electrochemical impedance spectroscopy: comparative insights from galvanostatic and potentiostatic measurements for corrosion monitoring
M. Maeda Evaluation of corrosion behaviour of Zn-Al alloys in simulated concrete environments using electrochemical impedance spectroscopy



organized by:



with the endorsement of:



sponsored by:

