

Corrosion and Scale Inhibition (WP1)

Panel No. On display Title

ALUMINUM ALLOY CORROSION INHIBITION BY TECHNICAL GLYCEROL

Sergiy KORNIY¹ Ivan ZIN¹ Olga KHLOPYK¹ Vasył POKHMURSKII²
Rafał KUZIOŁA³ Joanna WASAG³

¹ Karpenko Physico-Mechanical Institute, National Academy of Sciences of Ukraine, Ukraine

² Karpenko Physico-Mechanical Institute, Ukraine

³ Institute of Materials Engineering, John Paul II Catholic University, Poland

APPLICATION OF PROTIC IONIC LIQUIDS AS CORROSION INHIBITORS FOR MILD STEEL IN AQUEOUS SALINE SOLUTION

Caio Victor PEREIRA PASCOA¹ Regiane SILVA PINHEIRO²
Hosiberto BATISTA DE SANT'ANA¹ Walney SILVA ARAUJO¹

¹ Federal University of Ceara, Brazil

² Federal University of Maranhao, Brazil

Elaboration, characterization and corrosion evaluation of self-assembled 2,5-bis(4-pyridyl)-1,3,4-oxadiazole film for carbon steel corrosion protection in hydrochloric acid pickling medium

Charafeddine JAMA¹ Imane NADI² Marya BOUANIS² Khaddouj NOHAIR² Abdelhamid NYASSI² Fouad BENTISS²

¹ Univ. Lille, CNRS, INRAE, CENTRALE Lille, UMR 8207 - UMET - Unité Matériaux et Transformations UMR 8207, France

² Faculty of Sciences, Chouaib Doukkali University, Morocco

Electrochemical Robot for High Throughput Screening of Corrosion Inhibitors for AA5083

Rou Jun TOH¹ Jim JOSE¹ Karim GAMALELDIN¹ Ivan COLE¹ Patrick KEIL²

¹ RMIT, Australia

² BASF, Germany

Evaluation of chitosan as green corrosion inhibitor for carbon steel in sodium chloride solution

Anca COJOCARU¹ Ioana MAIOR¹ Ioana Alina CIOBOTARU¹ Marina T. PATRASCU² Danut-Ionel VAIREANU¹

¹ University POLITEHNICA of Bucharest, Romania

² University Politehnica of Bucharest, Russia

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Experimental studies and computational exploration on the newly synthesized 8-hydroxyquinoline derivatives containing benzimidazole moiety as novel corrosion inhibitors for carbon steel in phosphoric acid environment

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³ Laboratory of Materials, Nanotechnology and Environment, Faculty of Sciences, Mohammed V University, Morocco

⁴ Laboratory of Agricultural Resources, Polymer and Process Engineering, Ibn Tofail University, Morocco

The Inhibition Properties of two Pyrimidine-Pyrazole Derivatives on Mild Steel Corrosion in Acidic Medium

Hanane LACHHAB¹ Siham ECHIH² Yasser KARZAZI¹ Mohammed EL BELGHITI³ Abdelkader ZARROUK² Rachid TOUZANI¹ Abderrahim TITI¹

¹ Mohammed First University, Morocco

² Mohammed V University, Morocco

³ Laboratory of Nernst Technology, Canada

Corrosion by Hot Gases and Combustion Products (WP3)

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Studies on the thermal evolution of Polymer Derived Ceramics (SiAlOC glasses) as a key factor to understand their outstanding oxidation resistance

Maciej BIK¹ Claudia FASEL² Piotr JELEŃ¹ Maria OWIŃSKA¹ Ralf RIEDEL² Maciej SITARZ¹

¹ AGH University of Science and Technology in Cracow, Faculty of Materials Science and Ceramics, Poland

² Technical University of Darmstadt, Department of Materials Science, Darmstadt, Germany

Nuclear Corrosion (WP4)

Panel No.	On display	Title
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Study on the oxidation behaviour of ATF cladding materials during an STSBO using MAAP code

Yongsun YI¹ Ali ALRAISI² Boohyun AN¹ Pyungyeon CHO¹

¹ Khalifa University, United Arab Emirates

² Nawah Energy Company, United Arab Emirates

Zinc injection in light water reactors to mitigate stress corrosion cracking of Alloy 182 and cold-worked type 316L stainless steel

Adrianna MACKIEWICZ¹ Stefan RITTER¹ Kai CHEN¹ Hans-Peter SEIFERT¹ Sannakaisa VIRTANEN²

¹ Paul Scherrer Institute (PSI), Switzerland

² Friedrich-Alexander University Erlangen-Nürnberg, Germany

Environment Sensitive Fracture (WP5)

Panel No.	On display	Title
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Effect of in-situ hydrogen charging on the hydrogen trapping behavior in SAF 2205 duplex stainless steel

Daegeon LEE¹ Joonoh MOON² Heon-Young HA² Tae-Ho LEE²

Dong-Woo SUH¹

¹ POSTECH, Korea, South

² Korea Institute of Materials Science, Korea, South

Influence of strength on the resistance to hydrogen induced stress corrosion cracking of austenitic stainless steels

Jacqueline DEUTSCH¹ Mathias TRUSCHNER¹ Andreas KEPLINGER²

Gregor MORI¹

¹ Montanuniversitaet Leoben, Austria

² Voestalpine BOHLER Edelstahl GmbH & Co KG, Austria

Corrosion Mechanisms, Methods and Modelling (3M, WP6&8)

Panel No.	On display	Title
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Panel No. On display Title

A study of transient response to short-term galvanostatic square impulse polarisation in redox and corrosion electrochemical systems

Dávid BACCILIERI¹ Tamás KRISTÓF¹ Zoltán LUKÁCS¹

¹ University of Pannonia, Hungary

An open-source toolkit for including variable dynamics into corrosion-fracture simulation of extruded magnesium

Mohamadreza SHARIATI¹ Wolfgang WEBER¹ Daniel HÖCHE²

¹ Helmut Schmidt University/ University of the Federal Armed Forces Hamburg, Germany

² Institute of Surface Science Helmholtz-Zentrum Geesthacht, Germany

Analysis of EN impedance spectra for determination of corrosion-related diffusion effect on barrier properties of Zn and Al pigmented epoxy coatings

Boleslav EREMIAS¹ Lubomir MINDOS¹ Libor TUREK¹

¹ SVUOM Ltd., Czech Republic

ANALYSIS ON THE DETERIORATION OF ALUMINIZED CARBON STEEL C45 DURING EXPOSURE TO HOT AIR BY CELLULAR AUTOMATA

Hawkar MUHAMMED¹ Péter BARKÓCZY² Török TAMÁS³

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² Associate Professor, Institute of Physical Metallurgy, Metal Forming and Nanotechnology, Faculty of Material Science and Engineering, Hungary

³ Professor, Institute of Metallurgy, Laboratory of Surface Treatments and Surface Technologies, Faculty of Material Science and Engineering, Hungary

Aspects of signal interpretation of 3D SVET and corrosion measurements on model samples

Silvar KALLIP¹ Erik LEVOLL² Tõnis OPPE² Olavi OPPER² Kalle TIISMA² Toomas VINTER²

¹ University of Tartu, Estonia

² Tehnolabor OÜ, Estonia

Panel No. On display Title

Austenitic stainless steel corrosion resistance as a function on the ultrasonic welding effect

Tünde Anna KOVÁCS¹ Zoltán NYIKES²

¹ Óbuda University, Hungary

² Milton Friedman University, Hungary

Determination of EIS parameters from the high frequency range impedance data

Zoltan LUKACS¹ Dávid BACCILIERI¹ Tamás KRISTÓF¹

¹ University of Pannonia, Hungary

Determination of pipe steels susceptibility to corrosion cracking with SSRT method

Artem DAVYDOV¹ Aleksey ALHIMENKO¹ Alexander KHARKOV¹

Oleg SHVETSOV² Andrey LAPECHENKOV¹ Svetlana

MUSHNIKOVA³

¹ Peter the Great St. Petersburg Polytechnic University, Russia

² Peter the Great St.Petersburg Polytechnic University, Russia

³ Central Research Institute of Structural Materials Prometey, Russia

Development of a new type of knife steel and associated manufacturing and testing methods

Joachim STRITTMATTER¹ Manuela PERTHOLD¹ Matthias SORG²

Daniel KOCH¹ Lazar BOSKOVIC¹

¹ HTWG Konstanz University of Applied Sciences, Germany

² WITG Institute for Materials System Technology Thurgau, Switzerland

Distinct galvanic corrosion caused by non-metallic inclusion in low alloy steels

Zhongyu CUI¹

¹ Ocean University of China, China PR

EFFECT OF COLD ROLLING ON CORROSION RESISTANCE OF Cu-Ti ALLOYS

Denise HANOZ¹ Alessio Giorgio SETTIMI¹ Mattia FRANCESCHI¹

Tommaso MAGRO¹ Luca PEZZATO¹ Manuele DABALÀ¹

¹ University of Padova, Italy

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Effect of Different Austempering Heat Treatments on Corrosion properties of a high silicon carbide free bainitic steel
Mattia FRANCESCHI¹ Luca PEZZATO¹ Katya BRUNELLI¹ Manuele DABALÀ¹
¹ UNIVERSITY OF PADOVA, Italy

Effect of substrate preheating on Nd: YAG laser welding process of S32750 duplex stainless steel
Alessio Giorgio SETTIMI¹ Claudio GENNARI¹ Eli Jorge DA CRUZ JUNIOR² Vicente Afonso VENTRELLA³ Andrea ZAMBON¹ Irene CALLIARI¹
¹ University of Padova, Italy
² Federal Institute of Education, Science and Technology of São Paulo, Brazil
³ São Paulo State University, Brazil

Electrochemical behaviour of AlCrFe2Ni2Mox in water solutions containing NaCl or H2SO4 - effect of temperature
Jakub CZERSKI¹ Marzena MITORAJ-KRÓLIKOWSKA¹ Elżbieta M. GODLEWSKA¹ Mateusz MARZEC²
¹ AGH University of Science and Technoloy, Faculty of Materials Science and Ceramics, Poland
² AGH University of Science and Technoloy, Academic Centre For Materials and Nanotechnology, Poland

Electrochemical realkalization design applied to reinforced concrete structures using a numerical simulation approach
Julie DUBUIT¹ David GARCIA¹ Elie SASSINE¹
¹ CORROHM, France

Full-field non-contacting assessment of corrosion
Scott MATTHEWS¹ Duncan HUMPHREY¹ Doug DAVIES¹ Richard LAW¹ Sean DAVIES¹
¹ RINA Tech UK Ltd, United Kingdom

Hydrogen embrittlement susceptibility of the supermartensitic UNS S41426
Jamila ADEM¹
¹ UGITECH, France

Panel No. On display Title

Influence of different machining processes on corrosion resistance

Manuela PERTHOLD¹ Lazar BOSKOVIC¹ Arnulf HOERTNAGL²

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² WITg - Institut für Werkstoffsystemtechnik Thurgau, Switzerland

Investigating the corrosion behavior of stainless steels and Ni-based alloys in bromide containing solutions

Epameinondas SKOUNTZOS¹ Mary P RYAN¹ Kyra LS CAMPBELL²

¹ Imperial College London, United Kingdom

² University of Sheffield, United Kingdom

Localized Corrosion Studied via Interferometry using Modified Surfaces

Tracey JACKSON¹ Haitao FANG¹ Jagrut JANI¹ Johnathon BROOKS¹

Lei HUANG¹

¹ Baker Hughes Company, United States of America

Methodology Principles of Synthes Sacrificial Anodic Alloys

Efim LYUBLINSKI¹

¹ COR/SCI, LLC, United States of America

Nanoindentation with AFM to determine microhardness and Young's modulus for different materials

Gábor GULYÁS¹ Krisztián BALI¹ Mercédesz HORVÁTH¹ Gergő

MÉSZÁROS¹

¹ SEMILAB Semiconductor Physics Laboratory Co. Ltd., Hungary

On-site Cyclic Polarization Measurements to Validate Passivation Treated AISI 316L Stainless Steel in a Bio-fermentation Tank

Luis GUILHERME¹ Assis Vicente BENEDETTI² Cecílio Sadao

FUGIVARA³ Dirk L. ENGELBERG⁴

¹ Soudap soldas sanitárias, Brazil

² São Paulo State University (Unesp), Brazil

³ São Paulo State University, Brazil

⁴ The University of Manchester, United Kingdom

Panel No.	On display	Title
		<p>Parameter optimization for electropolishing of molybdenum in sulfuric acid</p> <p>Matthias EICHINGER¹ Gregor MORI¹ Bernhard MAYR-SCHMÖLZER²</p> <p>¹ Montanuniversität Leoben, Austria</p> <p>² Plansee SE, Austria</p>
		<p>Prediction of Corrosion Behavior of Stainless Steels 304, 316 and 13%Cr in Aggressive Environments</p> <p>Ali ESLAMIMANESH¹ Andre ANDERKO¹ Malgorzata M. LENCKA¹</p> <p>¹ OLI Systems, United States of America</p>
		<p>Surface enrichment of alloy elements in aluminium alloys during alkaline etching</p> <p>Erlind MYSLIU¹ Eline KJØRSVIK¹ Otto LUNDER² Andreas ERBE¹</p> <p>¹ NTNU (Norwegian University of Science and Technology), Norway</p> <p>² SINTEF Industry, Norway</p>
		<p>Tafel-Piontelli model for the calculation of corrosion rate of metals in acidic condition: validation tests in weak acids</p> <p>Andrea BRENNNA¹ Elena MESSINESE¹ Marco ORMELLESE¹</p> <p>¹ Politecnico di Milano, Italy</p>
		<p>Understanding Sweet Corrosion: Surface Spectroscopy and Microscopy</p> <p>David RUIZ IZURIAGA¹ Conor BYRNE² Marek NIKIEL² Alexander S. WALTON² Christopher A. MURYN² Robert LINDSAY²</p> <p>¹ University of Manchester, United Kingdom</p> <p>² The University of Manchester, United Kingdom</p>

Corrosion Education (WP7)

Marine Corrosion (WP9)

Panel No.	On display	Title
		<p>Durable Basalt-Based Chemical-Bonded Coatings Served in Deep Sea Environment</p> <p>Hongpeng ZHENG¹</p> <p>¹ Northeastern University, China PR</p>

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Electrochemical behavior of the UNS S32750 alloy welded by FSW in chloride solutions at different temperatures
Raone C. DE C. SILVA¹ Tiago F. A. SANTOS² Cecílio S. FUGIVARA¹
Assis V. BENEDETTI¹
¹ Institute of Chemistry - UNESP, Brazil
² UFPR -Federal University of Pernambuco, Brazil

Microbial Corrosion (WP10)

Panel No.	On display	Title
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Characterization of corrosive biofilms on sheet pile steel induced by *Desulfovibrio vulgaris* using proteomics and inorganic analysis
Lipi RAGHUNATHA REDDY¹ Lissa HELMHOLZ¹ Sandro CASTRONOVO¹ Annika FISKAL¹ Ilona HERRIG¹ Jutta MEIER²
Roland BAIER³ Sven-Erik WULF³ Thomas TERNES¹ Arne WICK¹
¹ Federal Institute of Hydrology, Germany
² Institute of Integrated Natural sciences, Germany
³ Federal Waterways Engineering and Research Institute, Germany

Influence of oil spill and the use of chemical surfactant on microbial corrosion in API 5L steel buried in saline soil
Luciano PROCOPIO¹
¹ Universidade Federal do Rio de Janeiro, Brazil

Microbiologically-influenced corrosion (MIC): Development of a model system to investigate the role of biofilm communities within MIC and their control using industrial biocides.
Liam JONES¹ Jeremy WEBB¹ Julian WHARTON¹ Torben Lund SKOVHUS² Maria SALTA³ Kathryn THOMAS⁴ Timothy ILLSON⁴
¹ University of Southampton, United Kingdom
² VIA University College, Denmark
³ University of Portsmouth, United Kingdom
⁴ DNV GL, United Kingdom

Corrosion of Steel in Concrete (WP11)

Panel No.	On display	Title
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Panel No.	On display	Title
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EIS Correlation of the Short and the Long Term Effects of the Concrete Reinforcement Inhibitors

Ivana ŠOIC¹ Sanja MARTINEZ¹

¹ University of Zagreb, Faculty of Chemical Engineering and Technology, Croatia

Corrosion in Oil & Gas Production (WP13)

Panel No.	On display	Title
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Corrosion and hydrogenation of 07Cr16Ni6 steel in chloride-acetate solution with H₂S

Vasyl POKHMURSKII¹ Myroslav KHOMA¹ Vasyl VYNAR¹ Marian CHUCHMAN¹ Bohdan DATSKO¹ Vasyl IVASHKIV¹ Chrystyna VASYLIV¹ Yulia MAKSHISHKO¹

¹ Karpenko Physico-Mechanical Institute of NAS of Ukraine, Ukraine

CORROSION AND HYDROGENATION OF 07Cr16Ni6 STEEL IN CHLORIDE-ACETATE SOLUTION WITH HYDROGEN SULPHIDE
Myroslav KHOMA¹ Vasyl VYNAR¹ Marian CHUCHMAN¹ Bohdan DATSKO¹ Vasyl IVASHKIV¹ Hanna POKHMURSKA²

¹ Karpenko Physico-Mechanical Institute of NASU, Ukraine

² Lviv Polytechnic National University, Ukraine

Direct observation of hydrogen-trapping sites in electrolytically charged Nb model steels

Caroline WOJNAS¹ Brian LANGELIER¹ Joey KISH¹ Joseph MCDERMID¹

¹ McMaster University, Canada

The research on corrosion resistance of oil and gas line pipes in CO₂-containing environment using electrochemical techniques

Olga VAVILOVA¹

¹ TMK R&D, Russia

Coatings (WP14)

... Metallic Coatings (WP14)

Panel No. On display Title

Actinide Protection with Metal Coatings

Tatiana KAZAKOVSKAYA¹ Edward GORYACHEV²

¹ Russian Federal Nuclear Center - All-Russia Scientific Research Institute of Experimental Physics RFNC-VNIIEF, Russia

² Russian Federal Nuclear Center - All- Russia Scientific Research Institute of Experimental Physics RFNC-VNIIEF, Russia

Electrodeposition of Silicon Thin Films on Copper Using Ionic Liquids

Ibrahim GHAYAD¹ Sabah FOUDA² AbdelAziz BADAWEY³ Fatma ABDELMOAIZ²

¹ Central Metallurgical Research and Development Institute, Egypt

² Central Metallurgical R&D Institute, Egypt

³ October High Institute for Engineering & Technology, Egypt

... Organic Coatings (WP14)

Panel No. On display Title

Analysis of the efficiency of coumaric acid based corrosion inhibitors incorporated in waterborne polymeric binders

Diulia Caroline QUITES RODRIGUES¹ Jose Ramon LEIZA¹ Maria FORSYTH² Maria PAULIS¹

¹ POLYMAT, University of the Basque Country UPV/EHU, Spain

² Institute for Frontier Materials, Deakin University, Australia

Assessment of Organic Coatings for Corrosion Prevention of Passenger Carriage Rolling Stock

Douglas MILLS¹ Elizabeth WATERS²

¹ University of Northampton, United Kingdom

² Colas Rail Services,, United Kingdom

Corrosion protection of aluminium in NH₃/H₂O solution for green energy applications

Baptiste PAGET¹ Olivier PONCELET¹ Benedicte KAPUSTA¹

Christian BATAILLON¹ Hai Trieu PHAN¹

¹ CEA, France

Panel No. On display Title

Detection of Underfilm Corrosion Using Millimeter Waves with a Monopole Antenna Equipped with a Semispherical Lens

Norikazu FUSE¹ Maya MIZUNO²

¹ Central Research Institute of Electric Power Industry, Japan

² National Institute of Information and Communications Technology, Japan

Effect of protective coating carrier thickness on adhesion

István SZTÁREK¹

¹ MOL Plc., Hungary

Electrochemical behavior of a cacti mucilage based corrosion protective coating

Iván Erick CASTAÑEDA ROBLES¹ Luis Daimir LÓPEZ LEÓN¹ Marco Antonio JUÁREZ ISLAS¹

¹ Autonomous University of the State of Hidalgo, Mexico

Electrochemical Impedance Spectroscopy Assessment of Zinc Rich Primer Performance and Its Degradation Processes

Shu LI¹ Huichao BI¹ Claus Erik WEINELL¹ Kim DAM-JOHANSEN¹

¹ CoaST, Department of Chemical and Biochemical Engineering, Technical University of Denmark(DTU), Building 229, DK-2800, Denmark

Electrodeposition of conductive polymers as a protective coating of porous austenitic stainless steels

Fernando MARTIN-PEDROSA¹ Cristina GARCIA-CABEZÓN² María Luz RODRIGUEZ-MENDEZ¹ Coral SALVO-COMINO¹ Clara PEREZ GONZALEZ¹

¹ Universidad de Valladolid, Spain

² University of Valladolid, Spain

Highly structured Nanomer® coatings containing manganese-hydrogen-phosphate particles for corrosion protection on mild steel

Marek TWARDOCH¹ Marlon JOCHUM¹ Şener ALBAYARK¹ Carsten BECKER-WILLINGER¹

¹ INM – Leibniz-Institut für Neue Materialien, Germany

Panel No. On display Title

Impact of Hydrogen absorption on 3LPE adhesion

Alexandre PERROT¹ Elisabeth FLEURY² François GROSJEAN³

Olivier LEVASSEUR⁴ Laurent HENRY⁵ Xavier CAMPAIGNOLLE⁶

¹ GRTgaz, France

² GRTgaz, Resarch & Innovation Center for Energy (RICE), France

³ IFPEN, France

⁴ GRTgaz, Technical Department, France

⁵ GRDF, France

⁶ Storengy, France

Influence of spot electro-resistant weld geometry to anticorrosive durability of electrostatic powder coated wire samples

Anna POROPAT¹ Ivan STOJANOVIĆ¹

¹ Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia

Infrared curing of organic coatings: preparation, characterization and properties evaluation

Lara JANKOVIĆ¹ Ivan CINDRIĆ¹ Daniela RAKELA RISTEVSKI² Ivan STOJANOVIĆ¹ Ivan JURAGA¹

¹ The Faculty of Mechanical Engineering and Naval Architecture, Croatia

² Končar Steel Structures Inc., Croatia

Investigation and improvement of zinc-rich coatings for the corrosion protection of steel

Chunping QI¹ Claus E. WEINELL² Hao WU² Kim DAM-JOHANSEN²

¹ The Hempel Foundation Coatings Science and Technology Centre (CoaST), Department of Chemical and Biochemical Engineering, Technical University of Denmark, Denmark

² Technical University of Denmark, Denmark

Preparation and tribology investigation of three-dimensional superhydrophobic coating based on benzoxazine

Xiang-kang CAO¹ Song XIAO¹ Guangyi CAI¹ Zehua DONG¹

¹ Huazhong University of Science and Technology, China PR

Stable graphene dispersion in water: a new anticorrosion additive

Thomas BOTTEIN¹

¹ Carbon Waters, France

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The corrosion properties of epoxy coating on the cast iron pipelines

Marin KURTELA¹ Vesna ALAR¹ Vinko ŠIMUNOVIĆ¹ Ivan STOJANOVIĆ¹ Dalibor IVANIŠ²

¹ Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia

² FERRO-PREIS Ltd., Croatia

Theoretical and Practical Advancements Towards the Routine Use of DEIS on Industrial Coating Systems

Sanja MARTINEZ¹ Bojan HUDEC¹ Ivana ŠOIĆ¹

¹ University of Zagreb, Faculty of Chemical Engineering and Technology, Croatia

... Inorganic Coatings (WP14)

Panel No.	On display	Title
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Anodizing of 5657 aluminum alloy in phosphoric acid and white coloration

Delphine VEYS-RENAUX¹ Ana GASCO OWENS¹ Sébastien LAVAL-GILLY¹ Vincent CARTIGNY¹ Emmanuel ROCCA¹

¹ Université de Lorraine, France

Ce-based Post-treatments for Plasma Electrolytic Oxidation Coatings on Mg alloys

Marta MOHEDANO¹ Borja PILLADO¹ Pablo PEREZ² Gerardo GARCES² Endzhe MATYKINA¹ Raul ARRABAL¹

¹ Universidad Complutense de Madrid, Spain

² CENIM-CSIC, Spain

Corrosion resistance improvement of Zn-Fe electrodeposits by hybrid inorganic-organic sol-gel films

Céline ARRIGHI¹ Catherine SAVALL² Juan CREUS² Marie-Georges OLIVIER¹

¹ Materials Science Department, Faculty of Engineering, University of Mons, Belgium

² LaSIE UMR 7356 CNRS, La Rochelle University, France

Panel No. On display Title

Cost effective sealing of porous PEO coating on AZ31 magnesium alloy by removable water and oil based preservatives

Filip PASTOREK¹ Milan ŠTRBÁK² Jana PASTORKOVÁ¹ Branislav HADZIMA¹

¹ University of Zilina, Research Centre, Slovakia

² University of Zilina, Department of Materials Engineering, Slovakia

Evaluation of corrosion, abrasion and cavitation erosion wear properties of dip coated silica based-hybrid sol-gel coatings on AA2024-T3.

Manasa HEGDE¹ Yvonne KAVANAGH¹ Brendan DUFFY² Edmond TOBIN¹

¹ Institute of Technology Carlow, Ireland

² CREST Technological University of Dublin, Ireland

Preparation and corrosion resistance of hydroxide-based films formed on Al-Zn-Mg alloy by steam coating

Takahiro ISHIZAKI¹

¹ Shibaura Institute of Technology, Japan

THIN-FILM BARRIERS DEPOSITED BY MAGNETRON SPUTTERING TO MITIGATE HYDROGEN-INDUCED DAMAGE IN DIFFERENT INDUSTRIAL STEELS SUBSTRATES

Raul GONZALEZ¹ Ana Maria CAMACHO¹ Alvaro RODRÍGUEZ PRIETO¹

¹ UNED, Spain

... Self-healing and smart Coatings (WP14)

Panel No. On display Title

Single step incorporation of zeolite nanocontainers in plasma electrolytic oxidation (PEO) coatings for active corrosion protection of aluminium

Safiya AL ABRI¹ Aleksey ROGOV¹ Allan MATTHEWS¹ Beatriz MINGO¹ Aleksey YEROKHIN¹

¹ The University of Manchester, United Kingdom

... Pretreatments (WP14)

Panel No.	On display	Title
		Coating adhesion enhancement with long-chain phosphonic acid Dajana MIKIĆ ¹ Helena OTMAČIĆ ĆURKOVIĆ ¹ ¹ Faculty of Chemical Engineering and Technology, University of Zagreb, Croatia
		Influence of self-assembly conditions on the properties of radiation crosslinked polymer nano coatings Katarina MARUSIC ¹ Ena PEZIĆ ² Dajana MIKIC ² Helena OTMACIC CURKOVIC ² Branka MIHALJEVIC ¹ ¹ Ruder Boskovic Institute, Croatia ² Faculty of Chemical Engineering and Technology, University of Zagreb, Croatia
		Study of surface preparation with laser cleaning and power tools for painting of corroded steel structures Teruhisa TATSUOKA ¹ Hiromitsu IJICHI ¹ Akikiyo KUROKAWA ¹ Keiichi YOSHINO ¹ Nobuhiro KISHIGAKI ¹ Tomoki SAKAUE ¹ Tomoaki KAWAMURA ² Tomoaki OSONO ² Kensei YMAMOTO ² Motoyuki YAMAZAKI ² Tomonori SHIRAISHI ² ¹ Tokyo Electric Power Company Holdings, Inc., Japan ² Tokyo Electric Power Company Power Grid, Inc., Japan
		The use of nanofluids in the surface preparation of coated steel Olga CONEJERO ¹ Marta PRADO ¹ ¹ Fundacion Idonial, Spain

Corrosion in the Refinery and Petrochemistry Industry (WP15)

Panel No.	On display	Title
		FAILURE INVESTIGATION OF CATALYST TUBE DAMAGE OF HYDROGEN REFORMER FURNACE Zeynep AZIZOGLU ¹ EYUP AZIZOGLU ¹ ¹ TUPRAS, Turkey

Panel No.	On display	Title
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ONLINE CORROSION MONITORING OF PIPELINES AT TURKISH
PETROLEUM REFINERY

Zeynep AZIZOGLU¹ Osman ERAL²

¹ Turkish Petroleum Refinery, Turkey

² TUPRAS, Turkey

Cathodic Protection (WP16)

Panel No.	On display	Title
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A study on the mechanism of cathodic protection in soils of low
and high buffer capacity

Gabriella GŐSI¹ Tamás KRISTÓF¹ Zoltán LUKÁCS¹

¹ University of Pannonia, Hungary

Automotive Corrosion (WP17)

Panel No.	On display	Title
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Defects analysis on the automotive coatings

Hana GEIPLOVA¹ Lubomir MINDOS¹ Pavlina FIALOVA¹

¹ SVUOM Ltd., Czech Republic

Tribocorrosion (WP18)

Panel No.	On display	Title
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Influence of friction on the mechanical and Electrochemical
behaviour of borided steels (321-431-FDMA) immersed in NaCl

Hichem SALHI¹ Mohammed el amine DJEGHLAL² Abderrazak
CHILALI³

¹ ENP, France

² ENP, Algeria

³ ENPEI, Algeria

Polymers and Advanced Materials (WP19)

Panel No.	On display	Title
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Hematite pigment influence on UltraViolet degradation of epoxy paint

Yazid TOUAZI¹

¹ Ecole Militaire Polytechnique, Algeria

Corrosion & Corrosion Protection of Drinking Water Systems (WP20)

Corrosion of Archaeological and Historical Artefacts (WP21)

Panel No.	On display	Title
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The artificially patinated bronze behaviour in various corrosion conditions

Helena OTMACIC CURKOVIC¹ Angela KAPITANOVIĆ² Dajana MIKIĆ³

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³ Faculty of Chemical Engineering and Technology, University of Zagreb, Croatia

Corrosion Control in Aerospace (WP22)

Panel No.	On display	Title
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Study of Variation of Wettability with Time and its Influence on Corrosion Resistance in Trivalent Chromium Process on Aluminium Alloy AA2024-T3

Carla Sofia PROENÇA¹ Bruno SERRANO² Ana CABRAL¹ Maria Eduarda ARAÚJO³ Jorge CORREIA³

¹ ISQ, Portugal

² FAP, Portugal

³ FCUL, Portugal

Panel No. On display Title

Towards hexavalent chromium-free corrosion protection in aircraft: combining laboratory and in-service evaluation

Arjan CORNET¹ Axel HOMBORG² Arjan MOL³

¹ Royal Netherlands Air Force / Delft University of Technology, Netherlands

² Netherlands Defence Academy / Delft University of Technology, Netherlands

³ Delft University of Technology, Netherlands

Corrosion Reliability of Electronic Materials and Devices (WP23)

Panel No. On display Title

Corrosion of copper in electronic systems

Katerina KREISLOVA¹ Pavlina FIALOVA¹

¹ SVUOM Ltd., Czech Republic

Electrochemical corrosion investigations on Ge-alloyed SnAgCu lead-free solder alloys

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Evaluation of the corrosion behavior of the ternary Sn-Ni-Cu alloy coatings obtained from deep eutectic solvents

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CO₂-Corrosion in Industrial Applications (WP24)

Panel No.	On display	Title
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Analysis of the influence of water content, temperature, pressure and flow rate on the corrosion behavior in carbon steels pipelines by a supercritical CO₂ environment: A review.

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Atmospheric Corrosion (WP25)

Panel No.	On display	Title
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Material degradation of steel bridges in specific atmospheric conditions

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The use of volatile inhibitors for protection of a number of metals against atmospheric corrosion

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Corrosion in molten salts and ionic liquids for energy applications (JS WP3&4)

Panel No.	On display	Title
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Panel No.	On display	Title
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Corrosion of candidate materials and deposition of protective coatings for molten salt reactor (MSR)

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Microbial corrosion in marine environment (JS WP9&10)

Polymers in Organic Coatings (JS WP14&19)

Panel No.	On display	Title
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Polymer Interfaces at High Resolution

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Corrosion issues in electric vehicles and e-mobility systems (JS WP17&23)

Corrosion in green and low carbon technologies (JS WCO&TF)

Corrosion of medical implants or devices

Panel No.	On display	Title
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Panel No. On display Title

Characterization and immune response of electrochemically reduced graphene oxide functionalized with hyaluronic acid on biomedical grade CoCr after tribocorrosion tests

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Influence of surface roughness on corrosion behaviour of Titanium alloy

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Stability and hydration behavior of pure magnesium powder and its dependence on the environment

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Corrosion and Corrosion Protection of AM metals (VUB, WP6,14&22)

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Panel No.	On display	Title
		<p>3D-Printed Multi-Material Lithium-ion Batteries for Electric Vehicle Applications</p> <p>Vikas KUMAR¹ Shiladitya PAUL²</p> <p>¹ Materials Innovation Centre, School of Engineering, University of Leicester, United Kingdom</p> <p>² Materials and Structural Integrity Technology Group, TWI, United Kingdom</p>
		<p>Corrosion properties of AISI 316L stainless steel produced by additive manufacturing</p> <p>Xavier MAJNONI D'INTIGNANO¹ Charles BIANCHETTI¹ Olivier DEVOS² Mohamed EL MAY² Pascale KANOUTÉ¹ Sébastien MERCIER¹ Nicolas SAINTIER²</p> <p>¹ ONERA Châtillon, France</p> <p>² I2M Bordeaux, France</p>
		<p>Influence of CaO coatings on the thermal oxidation of cobalt</p> <p>HALEM OUARDIA¹ HALEM ZOHRA¹ HALEM NACER¹ ABRUDEANU MARIOARA² PETOT-ERVAS GEORGETTE³</p> <p>¹ UNIVERSITY, Algeria</p> <p>² UNIVERSITY, Romania</p> <p>³ ECOLE CENTRALE DE PARIS (ECP), France</p>

Understanding into Accelerated Atmospheric Corrosion Tests (JS WP17,22&25)

Corrosion in Concrete and Cathodic Protection (WP11&16)

Panel No.	On display	Title
		<p>3D Numerical simulation of an Impressed Current Cathodic Protection applied on a reinforced concrete pile in Monaco</p> <p>Elie SASSINE¹ Julie DUBUIT¹ David GARCIA¹ Simon DEHARO¹</p> <p>¹ CORROHM, France</p>
		<p>Evaluation of Corrosion in Cement Plants According to Climate Condition in Iran</p> <p>Najmeh AZIMZADEH¹ Amirhosein MARAGHI¹</p> <p>¹ Iranian Corrosion Association, Iran</p>

Microbial corrosion – battling bugs in Oil & Gas production (JS WP10&13)

Cathodic Protection in Marine Environment (WP9&16)