MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

Pretreatments / Organic Coatings	
11:00 – 12:40	**Room: Saal 11**
Chairs	**W. Fürbeth**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE **J. Vogelsang**, Sika Technology AG, Zürich/CH
11:00 – 11:20	**Effect of cerium addition on the corrosion protection properties of hybrid sol-gel coatings on AA1050** **M. Fedel[1], M. Fabbian[1], F. Deflorian[1]**, [1] University of Trento, Trento/IT
11:20 – 11:40	**Influence of substrate pretreatments on the Trivalent Chromium Process (TCP) coating properties on aluminium alloys** **R. Viroulaud[1], J. Swiatowska[1], A. Seyeux[1], S. Zanna[1], J. Tardelli[2], P. Marcus[1]** [1] CNRS - Chimie ParisTech, Paris/FR; [2] IRT-M2P - Institut de Recherche Technologique/Matériaux Métallurgie et Procédés, Metz/FR
11:40 – 12:00	**Corrosion protection of road bridges with a 100 years lifetime** **O. Knudsen[1], G. Djuve[2], J. Hasselø[2]** [1] SINTEF, Trondheim/NO; [2] NPRA - Norwegian Public Roads Administration, Oslo/NO
12:00 – 12:20	**Corrosion protection of steel structures in industrial and marine atmospheres by waterborne acrylics DTM (direct to metal) paint system** **P. Tiano[1], I. Aoki[2]** [1] Industria Eletrica Marangoni Marretti Ltda, Mogi Mirim, São Paulo/BR [2] Universidade de São Paulo, São Paulo/BR
12:20 – 12:40	**Corrosion protection of superhydrophobic PVDF-co-HEF/Al2O3 coating for aluminum surfaces** **A. Bahgat[1], A. Mohamed[1], A. Abdullah[1], M. Al-Maadeed[1], M. Sliem[1]** [1] Qatar University, Doha/QA
12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**
Organic Coatings	
14:00 – 15:40	**Room: Saal 11**
Chairs	**J. Vogelsang**, Sika Technology AG, Zürich/CH **P. Keil**, BASF Coatings GmbH, Münster/DE
14:00 – 14:20	**Novel waterborne 2K epoxy-hardener dispersions with top performance and minimum impact on health & environment** **F. Lunzer[1], M. Zirngast[1], G. Hobisch[1]** [1] Allnex, Graz/AT

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:20 – 14:40	**Corrosion protection of machined steel surfaces – coating adhesion** **C. Hagen[1], A. Kristoffersen[1], O. Knudsen[2]** [1] Norwegian University of Science and Technology, Trondheim/NO [2] SINTEF, Trondheim/NO
14:40 – 15:00	**Dielectric and impedance spectroscopy investigations on highly structured corrosion protection coatings on mild steel** **C. Becker-Willinger[1], S. Schmitz-Stoewe[1], M. Jochum[1], S. Albayrak[1], E. Perre[1], M. Wild[1]** [1] INM - Leibniz-Institut für Neue Materialien GmbH, Saarbrücken/DE
15:00 – 15:20	**The effect of doping level on corrosive properties of polyaniline / polyvinylbutyral coatings** **F. Perrin[1], T. Phan[2], D. Nguyen[2]** [1] Université de Toulon, La Garde Cedex/FR; [2] University of Da Nang, Da Nang/VN
15:20 – 15:40	**Polyaniline/graphene nanocomposite coatings on mild steel for surface protection** **A. Madhan Kumar[1], Z. Gasem[1]** [1] King Fahd University of Petroleum and Minerals, Dhahran/SA
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Organic Coatings	
16:10 – 17:10	**Room: Saal 11**
Chairs	**P. Keil**, BASF Coatings GmbH, Münster/DE **W. Fürbeth**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE
16:10 – 16:30	**Anodic delamination and constant climate test for degradation of organic coatings** **S. Walkner[1], A. Hassel[2]** [1] CEST Competence Centre for Electrochemical Surface Technology, Wiener Neustadt/AT; [2] Johannes Kepler Universität Linz, Linz/AT
16:30 – 16:50	**Anticorrosion and wear-resistant composite coating at the surface of magnesium alloys** **S. Gnedenkov[1], S. Sinebryukhov[1], D. Mashtalyar[1], K. Nadaraya[1]** [1] Russian Academy of Sciences, Vladivostok/RU
16:50 – 17:10	**Development of excellent corrosion- and abrasion-resistant anti-fingerprint steels for digital TV panels** **D. Jo[1], J. Park[1]** [1] POSCO, Pohang/KR

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

Mechanisms, Methods & Modelling	
11:00 – 11:40	**Room: Galerie B**
Chairs	**A. Mol**, TU Delft, Delft/NL **P. Marcus**, CNRS - Chimie ParisTech, Paris/FR
11:00 – 11:40 **Keynote**	**Metal grain boundary passivation studied by in situ scanning tunnelling microscopy on microcrystalline copper** V. Maurice[1], H. Chen[1], L. Klein[1], L. Lapeire[2], K. Verbeken[2], H. Terryn[3], P. Marcus[1] [1] CNRS - Chimie ParisTech, Paris/FR [2] Ghent University, Zwijnaarde/BE [3] Vrije Universiteit Brussel (VUB), Brussel/BE
11:40 – 12:00	**Sigma (S3) and random grain boundaries and their effect on the corrosion of Ni-Cr-Mo alloys** N. Ebrahimi[1], P. Jakupi[1], I. Korinek[2], D. Moser[1], D. Shoesmith[1] [1] Western University, London, Ontario/CA [2] Canadian Center of Electron Microscopy, Hamilton/CA
12:00 – 12:20	**Relative humidity of pitting initiation and repassivation of stainless steels under wet-dry cycles at various temperatures** A. Nishikata[1], T. Nam[1], E. Tada[1] [1] Tokyo Institute of Technology, Tokyo/JP
12:20 – 12:40	**On the effect of local strain and stress on environment-assisted cracking susceptibility of grade 2205 duplex stainless steel** C. Örnek[1], D. Engelberg[1] [1] The University of Manchester, Manchester/GB
12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
14:00 – 15:40	**Room: Galerie B**
Chair	**V. Maurice**, CNRS - Chimie ParisTech, Paris/FR
14:00 – 14:20	**Influence of the grain orientation spread and grain size on the pitting corrosion resistance of duplex stainless steel using EBSD / CPT at the microscale** V. Vignal[1], D. Ba[1], S. le Manchet[2] [1] CNRS - Université de Bourgogne, Dijon/FR; [2] ArcelorMittal, Global R&D, Le Creusot/FR

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:20 – 14:40	**Correlating grain boundary crystallography to aluminum corrosion** M. Seita[1], M. Volpi[2], M. Pedeferri[2], M. Demkowicz[1], M. Diamanti[2] [1] Massachusetts Institute of Technology, Cambridge/US [2] Politecnico di Milano, Milano/IT
14:40 – 15:00	**Corrosion properties of polished or shot-peened and plasma nitride austenitic stainless steel 304L and 316L** J. Biehler[1], H. Hoche[1], M. Oechsner[1], [1] TU Darmstadt, Darmstadt/DE
15:00 – 15:20	**Influence of nitrogen on the corrosion resistance of martensitic stainless steels** P. Rosemann[1], T. Halle[1] [1] Otto-von-Guericke Universität Magdeburg, Magdeburg/DE
15:20 – 15:40	**Modelling of hydrogen evolution and diffusion on carbon steel in an inverted rotating disk electrode** L. Vecchi[1], B. Özdirik[1], H. Terryn[1], I. De Graeve[1], J. Deconinck[1], C. Khon[1], Y. Van Ingelgem[1] [1] Vrije Universiteit Brussel (VUB), Brussel/BE
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
16:10 – 17:30	**Room: Galerie B**
Chair	**V. Vignal**, CNRS - Université de Bourgogne, Dijon/FR
16:10 – 16:30	**Repassivation studies using coupled multi electrode arrays** T. Kosec[1], B. Zajec[1], A. Legat[1] [1] Slovenian National Building and Civil Engineering Institute [ZAG], Ljubljana/SI
16:30 – 16:50	**A risk-based approach to pitting corrosion evaluation** E. Shekari[1], F. Khan[1], S. Ahmed[1], [1] Memorial University of Newfoundland, St. John's/CA
16:50 – 17:10	**Behaviour of a low-carbon martensitic stainless steel (X4CrNiMo 16.5.1) exposed to water condensation** S. Thiebaut[1], V. Vignal[2], S. Ringeval[1], K. Tabalaiev[2] [1] CEA, Is-sur-Tille/FR; [2] CNRS - Université de Bourgogne, Dijon/FR
17:10 – 17:30	**Change of pH of inside the crevice with time during crevice corrosion initiation and growth step of a duplex stainless steel** N. Ito[1], R. Yamamoto[2], S. Aoki[1], J. Sakai[1] [1] Waseda University, Shinjuku-ku, Tokio/JP [2] EBARA Corporation, Fujisawa-shi, Kanagawa/JP

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

Hydrogen in Oil, Marine and ESF

11:00 – 12:40 Room: Saal 10

Chairs **S. Paterson**, Shell Projects & Technology, Amsterdam/NL
K. Wolski, Ecole Nationale Supérieure des Mines, Saint Etienne/FR

11:00 – 11:20 **HISC testing and result from long time low temperature creep measurements of duplex**
U. Kivisäkk
AB Sandvik Materials Technology, Sandviken/SE

11:20 – 11:40 **Hydrogen induced stress cracking tests for offshore wind farm monopile foundations – Part II**
D. Bangsgaard[1], T. Mathiesen[1], L. Hilbert[1]
[1] Force Technology, Brøndby/DK

11:40 – 12:00 **Hydrogen induced SCC of a martensitic stainless steel: influence of cathodic potential**
F. Bolzoni[1], G. Fumagalli[1], L. Lazzari[1], S. Tagini[1]
[1] Politecnico di Milano, Milano/IT

12:00 – 12:20 **Influence of stress state and plastic strain on hydrogen diffusion and trapping into subsurface of nickel single crystal (100)**
X. Feaugas[1], C. Lekbir[1], C. Huvier[1], E. Conforto[1], J. Creus[1], R. Sabot[1]
[1] Université de la Rochelle, La Rochelle/FR

12:20 – 12:40 **Impact of cementite on the tortuosity of the hydrogen diffusion paths in pearlitic steels**
C. Forot[1], E. Legrand[2], E. Roguet[3], J. Creus[2], J. Kittel[1], X. Feaugas[2]
[1] IFP Energies Nouvelles (IFPEN), Solaize/FR; [2] Université de la Rochelle, La Rochelle/FR; [3] IFP Energies Nouvelles (IFPEN), Rueil-Malmaison/FR

12:40 – 14:00 **LUNCH BREAK / Room: Exhibition Area**

Hydrogen in Oil, Marine and ESF

14:00 – 15:40 Room: Saal 10

Chair **U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE

14:00 – 14:20 **Comparison of sour environmental severity by DCB**
K. Kobayashi[1], K. Kondo[2]
[1] Nippon Steel & Sumitomo Metal Corporation, Amagasaki/JP
[2] Nippon Steel & Sumitomo Metal Corporation, Wakayama/JP

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:20 – 14:40 **Influence of baking time at different temperature on the hydrogen embrittlement of QTM steels**
J. Creus[1], A. Oudriss[1], R. Milet[1], H. Morillot[2], J. Sobrino[2], C. Berziou[1], C. Rébéré[1], S. Cohendoz[1], X. Feaugas[1]
[1] Université de La Rochelle, La Rochelle/FR; [2] CETIM, Senlis/FR

14:40 – 15:00 **On the implication of the grain boundary character on hydrogen diffusion and trapping in the nickel bicrystals**
A. Oudriss[1], J. Li[1], J. Creus[1], J. Bouhattate[1], X. Feaugas[1]
[1] Université de la Rochelle, La Rochelle/FR

15:00 – 15:20 **The hydrogen permeation of low alloy high strength steel at splash zone and the mitigation effect of a wrapping protection technique**
Y. Huang[1], W. Qu[1], X. Yu[1], M. Zheng[1], D. Lu[1], B. Hou[1]
[1] Chinese Academy of Sciences, Qingdao/CN

15:40 – 16:10 **COFFEE BREAK / Room: Exhibition Area**

Hydrogen in Oil, Marine and ESF

16:10 – 17:30 Room: Saal 10

Chair **S. Paterson**, Shell Projects & Technology, Amsterdam/NL

16:10 – 16:30 **The Double-Cantilever-Beam Test at Forty**
D. Sponseller[1], T. Sponseller[1], [1] OMNI Metals Laboratory Inc., Ann Arbor/US

16:30 – 16:50 **Online monitoring of crack growth in NACE TM0177-2005 method D sour gas testing**
C. Holzer[1], G. Mori[1], G. Klösch[2], J. Klarner[3], R. Sonnleitner[3]
[1] Montanuniversität Leoben, Leoben/AT; [2] voestalpine Stahl Donawitz GmbH & Co KG, Leoben/AT; [3] voestalpine Tubulars GmbH & Co KG, Kindberg-Aumühl/AT

16:50 – 17:10 **Influence of Cu addition on corrosion product and hydrogen permeation in mildly sour conditions**
D. Mizuno[1], K. Baba[1], H. Nakamichi[1], K. Yasuda[1], N. Ishikawa[1]
[1] JFE Steel Corporation, Kawasaki/JP

17:10 – 17:30 **Corrosion product formation under sour conditions and its influence on H uptake**
E. Wallaert[1], K. Verbeken[1], I. De Graeve[2]
[1] Ghent University, Zwijnaarde/BE; [2] Vrije Universiteit Brussel (VUB), Brussel/BE

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

Sustainable and Green Energies	
11:00 – 12:20	**Room: Saal 3**
Chair	**R. Bäßler**, BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE
11:00 – 11:20	**Damage tolerance of thermally sprayed corrosion resistant alloy coatings on carbon steel for use in CCS** S. Paul, TWI, Cambridge/GB
11:20 – 11:40	**Carbon steel corrosion in CO2 with water on both side of the solubility limit** B. Morland[1], **A. Dugstad[1]** [1] Institute for Energy Technology, Kjeller/NO
11:40 – 12:00	**Effect of biogas components on the integrity of existing gas distribution infrastructure** W. Rittel[1], **R. Hermkens[1]** [1] Kiwa Technology, Apeldoorn/NL
12:00 – 12:20	**Electrochemical measurements of corrosion resistance behavior for ferritic, austenitic and duplex stainless steels in biogas production environments** M. Romero Barragán[1], **V. Matres[1]; R. Brunstermann[2]** [1] Acerinox Europa SAU, Los Barrios/ES; [2] Universität Duisburg-Essen, Essen/DE
12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**

Tribocorrosion	
14:00 – 15:40	**Room: Saal 3**
Chair	**S. Mischler**, EPFL STI IMX LMCH, Lausanne/CH
14:00 – 14:20	**Tribocorrosion of stainless steel in nitric acid solutions for surface polishing applications** V. Totolin[1], **H. Gocerler[1]**, **H. Reicher[1]**, **M. Jech[1]** [1] AC2T research GmbH, Wiener Neustadt/AT
14:20 – 14:40	**Friction and wear behaviour of nitride coatings in Na2SO4 aqueous solution under low contact pressure** V. Pejakovic[1], **V. Totolin[1]**, **H. Gocerler[1]**, **J. Brenner[1]**, **M. Rodriguez Ripoll[1]** [1] AC2T research GmbH, Wiener Neustadt/AT

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:40 – 15:00	**Repassivation kinetic of a duplex stainless steel under tribocorrosion condition in anoxic media** N. Mary[1], **S. Marcelin[1]**, **B. Normand[1]**, [1] INSA - Lyon, Villeurbanne/FR
15:00 – 15:20	**Influence of the microstructure of low-alloyed carbon steel tubings on sliding/corrosion wear phenomena** G. Zehethofer[1], **A. Trausmuth[2]**, **M. Rodriguez Ripoll[2]**, **T. Vogl[3]**, **E. Badisch[2]**, **W. Havlik[1]** [1] OMV Exploration & Production GmbH, Wien/AT [2] AC2T research GmbH, Wiener Neustadt/AT [3] voestalpine Tubulars GmbH & Co. KG, Kindberg-Aumühl/AT
15:20 – 15:40	**Tribocorrosion performance of surface engineered titanium surfaces** V. Totolin[1], **V. Pejakovic[1]**, **T. Csanyi[2]**, **O. Hekele[2]**, **M. Huber[2]**, **M. Rodriguez Ripoll[1]** [1] AC2T research GmbH, Wiener Neustadt/AT; [2] CCI Valve Technology GmbH, Wien/AT
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**

Tribocorrosion	
14:00 – 15:40	**Room: Saal 3**
Chair	**S. Mischler**, EPFL STI IMX LMCH, Lausanne/CH
16:10 – 16:30	**Tribological properties of alternative coatings to hard Cr** P. Masset[1], **A. Förg[1]**, **K. Dotzler[1]**, **A. Bund[2]**, **A. Ispas[2]**, **V. Gruia[2]**, **A. Dietz[3]**, **L. Libralesso[4]**, **C. Nouvellon[5]**, **J. Ratajski[6]**, **P. Rokicki[7]**, **Ł. Szparaga[6]** [1] Fraunhofer Institute UMSICHT, Sulzbach-Rosenberg/DE [2] TU Ilmenau, Ilmenau/DE; [3] Fraunhofer IST, Braunschweig/DE [4] CRM Group, Liege/BE; [5] Materia Nova, Mons/BE [6] Koszalin University of Technology, Koszalin/PL [7] Rzeszow University of Technology, Rzeszow/PL
16:30 – 16:50	**Tribocorrosion behaviour of mooring HSLA steel in synthetic seawater under bidirectional sliding** A. López[1], **R. Bayón[2]**, **J. Arana[3]**, **F. Pagano[2]**, **A. Igartua[2]** [1] IK4-TEKNIKER, Eibar/ES; [2] IK4-Tekniker, Eibar/ES [3] University of Basque Country, Bilbao/ES
16:50 – 17:10	**Tribocorrosion performances of Co/nano-CeO2 bio-coatings in physiological solution** **L. Benea[1]**, E. Dănăilă[1], **P. Ponthiaux[2]** [1] Dunarea de Jos University of Galati, Galati/RO [2] Ecole Centrale Paris, Châtenay-Malabry/FR

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

Corrosion by Hot Gases	
11:00 – 12:40	**Room: Saal 12**
Chair	**M. Schütze**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE
11:00 – 11:20	**Type II hot corrosion of coatings in the next generation of industrial gas turbines** A. Potter[1], J. Sumner[1], N. Simms[1], J. Oakey[1] [1] Cranfield University, Cranfield, Bedfordshire/GB
11:20 – 11:40	**Molten salt induced high temperature oxidation of directionally solidified Rene 80** A. Vayyala[1], N. Paulose[2], S. Babu[2], M. Kamaraj[1], L. Neelakantan[1] [1] Indian Institute of Technology Madras, Chennai/IN [2] Gas Turbine Research Establishment (GTRE), Bengaluru/IN
11:40 – 12:00	**Study of corrosion kinetics and mechanisms of metallic materials in waste to energy conditions** E. Schaal[1], N. David[1], P. Panteix[1], C. Rapin[1], F. Maad[2], J. Brossard[2] [1] Institut Jean Lamour - Université de Lorraine, Vandoeuvre lès Nancy/FR [2] Veolia Environnement Recherche Et Innovation, Limay/FR
12:00 – 12:20	**The effect of La, C and B contents on the cyclic oxidation behaviour of Ni-Cr-W-Mo superalloys** D. Yun[1], Y. Yoo[1], H. Jeong[1], S. Seo[1] [1] Korea Institute of Materials Science, Changwon, Gyungnam/KR
12:20 – 12:40	**Investigation of corrosion behaviour of different steels in hot molten salt for solar thermal power plants** D. Rückle[1], S. Kaesche[1], H. Garrecht[1], S. Virtanen[2] [1] Universität Stuttgart, Stuttgart/DE [2] Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen/DE
12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**
Corrosion by Hot Gases	
14:00 – 15:00	**Room: Saal 12**
Chair	**M. Schütze**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:00 – 14:20	**Microstructure and mechanical properties of thermal oxide scale: effect of MnS inclusions in the austenitic stainless steels** C. Pascal[1], V. Parry[1], M. Braccini[1], E. Fedorova[2], M. Mantel[3], D. Oquab[4], Y. Wouters[1], D. Monceau[4] [1] University of Grenoble, Grenoble/FR [2] Polytechnic Institute of Siberian Federal University, Krasnoyarsk/RU [3] Ugitech SA, Ugine/FR [4] Université de Toulouse, Toulouse/FR
14:20 – 14:40	**Thermogravimetry and post-mortem study of the oxide scale spallation behavior during post-isothermal oxidation cooling of Cr-rich {Co, Ni or Fe}-based cast alloys with various Hf contents** P. Berthod[1], E. Conrath[1] [1] Université de Lorraine, Vandoeuvre-lès-Nancy/FR
14:40 – 15:00	**High pressure nickel alloy materials for nuclear materials for nuclear power plants** D. Marušáková[1], P. Sajdl[1] [1] University of Chemistry and Technology Prague, Praha/CZ
Refractory Metals and their Alloys	
15:00 – 15:40	**Room: Saal 12**
Chair	**M. Schütze**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE
15:00 – 15:20	**Effect of porosity on microstructure, corrosion resistance of a new tool steel by salt bath nitriding and post-oxidation** H. Fu[1], J. Zhang[1], S. Wu[1], J. Huang[1], Y. Lian[1]vC. Zhang[1] [1] University of Science and Technology Beijing, Beijing/CN
15:20 – 15:40	**Cracking of SA213 Gr22 BFW preheater heat exchanger tubes ends** A. Cafissi[1], G. Paci[1]vA. Pudia[1], M. Orlandini[1] [1] Saipem S.p.a, San Donato/IT
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Refractory Metals and their Alloys	
16:10 – 17:30	**Room: Saal 12**
Chair	**M. Schütze**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

16:10 – 16:30	**High temperature oxidation of platinum alloys in presence of monomethylhydrazine, dinitrogen tetroxide and their reaction products** L. Wermuth[1], S. Beyer[1], J. Deck[2], M. Schütze[3] [1] Airbus DS GmbH, München/DE; [2] Airbus DS GmbH, Hardthausen-Lampoldshausen/DE [3] DECHEMA - Forschungsinstitut, Frankfurt am Main/DE
16:30 – 16:50	**Strategies against high temperature nitridation of Cr-alloys** M. Galetz[1], A. Soleimani-Dorcheh[1] [1] DECHEMA-Forschungsinstitut, Frankfurt am Main/DE
16:50 – 17:10	**Corrosion resistance of anodic coatings on Ta after plasma electrolytic oxidation in a Ca and P containg solution** M. Sowa[1], M. Woszczak[1], G. Dercz[2], W. Simka[1] [1] Silesian University of Technology, Gliwice/PL; [2] University of Silesia, Katowice/PL
17:10 – 17:30	**Microstructural influence on the corrosion behaviour of Ti15Mo alloy in NaF solution** F. Depentori[1], S. Benfer[1], W. Fürbeth[1]vF. Brunke[2], C. Siemers[2] [1] DECHEMA - Forschungsinstitut, Frankfurt am Main/DE [2] TU Braunschweig, Braunschweig/DE

Corrosion and Scale Inhibition	
11:00 – 12:40	**Room: Saal 2**
Chairs	**G. Schmitt**, IFINKOR-Institute for Maintenance and Corrosion Protection Technolgies n.f.p.Ltd., Iserlohn/DE **W. Hater**, Kurita Europe APW GmbH, Düsseldorf/DE
11:00 – 11:20	**Unravelling the intricacies of corrosion inhibition by metal phosphonate anticorrosion coatings** K. Demadis University of Crete, Heraklion/GR
11:20 – 11:40	**The influence of alkalising amines on the film formation of oleyldiamine** W. Hater[1], P. Kraft[1], C. Forêt[2] [1] Kurita Europe APW GmbH, Düsseldorf/DE [2] ICL France SAS, Vaas/FR
11:40 – 12:00	**Implementation of vapor corrosion inhibitors to improve corrosion protection effectiveness of dry air system** B. Bavarian[1], B. Miksic[2], Y. Ikder[1], B. Samimi[1], L. Reiner[1] [1] California State University, Northridge/US; [2] Cortec Corporation, St. Paul/US

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

12:00 – 12:20	**Electrochemical characterization and release properties of corrosion inhibitor containing microparticles for environmentally friendly smart coatings** B. Pearman[1], W. Li[1], J. Buhrow[1], X. Zhang[1], M. Johnsey[1], E. Montgomery[1], L. Fitzpatrick[2], J. Surma[1], L. Calle[1] [1] NASA, Merritt Island, Florida/US; [2] NASA, Kennedy Space Center/US;
12:20 – 12:40	**Corrosion protection of Cu70Ni30 alloy by phosphonic acids** H. Otmačić Ćurković[1], Z. Hajdari[1], K. Huljev[2] [1] University of Zagreb, Zagreb/HR [2] Institute of Science and Technology Austria, Klosterneuburg/AT
12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**

Corrosion and Scale Inhibition	
14:00 – 15:40	**Room: Saal 2**
Chairs	**G. Schmitt**, IFINKOR-Institute for Maintenance and Corrosion Protection Technolgies n.f.p.Ltd., Iserlohn/DE **W. Hater**, Kurita Europe APW GmbH, Düsseldorf/DE
14:00 – 14:20	**Application of SVET to study the inhibitive effect of benzotriazole and cerium chloride with a model aluminium/copper galvanic coupling system** L. Bertolucci Coelho[1], M. Mouanga[1], M. Druart[1], I. Recloux[1], M. Olivier[1] [1] University of Mons, Mons/BE
14:20 – 14:40	**Evaluation of performance of an amine based and an imidazoline based gas and gas condensate inhibitor tested with high velocity laboratory test rig** A. Prethaler[1], G. Mori[1], W. Havlik[2], G. Zehethofer[2], S. Hönig[2], E. Rosenberg[3], M. Rückemann[3] [1] Montanuniversität Leoben, Leoben/AT [2] OMV Exploration & Production GmbH, Wien/AT; [3] TU Wien, Wien/AT
14:40 – 15:00	**Downhole O2-corrosion inhibitor evaluation for nitrogen gas lifting system ? Part II: jet impingement** Y. Al-Janabi[1], M. Alsalem[1], K. Al-Dossary[1] [1] Saudi Aramco, Dhahran/SA
15:00 – 15:20	**Evaluation of chitosan and carboxymethyl cellulose (CMC) as ecofriendly corrosion inhibitors for X60 pipeline steel in CO2 saturated 3.5% NaCl solution** A. Al Ahmary[1], S. Umoren[1], Z. Gasem[1] [1] King Fahd University of Petroleum and Minerals, Dhahran/SA

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:20 – 15:40	**Performance evaluation of polypropylene glycol as corrosion inhibitor for X60 pipeline steel in 15% HCl solution** S. Umoren[1], [1] King Fahd University of Petroleum and Minerals, Dhahran/SA
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Corrosion and Scale Inhibition	
16:10 – 17:10	**Room: Saal 2**
Chairs	**G. Schmitt**, IFINKOR-Institute for Maintenance and Corrosion Protection Technolgies n.f.p.Ltd., Iserlohn/DE **W. Hater**, Kurita Europe APW GmbH, Düsseldorf/DE
16:10 – 16:30	**Inhibition effect of polyacrylamide on the corrosion behaviour of carbon steel (K-55) in fracturing fluid under hydrodynamic conditions** G. Palumbo[1], J. Banas[1], U. Lelek-Borkowska[1], A. Balkowiec[2], J. Mizera[2], M. Pisarek[3] [1] AGH-University of Science and Technology, Krakow/PL [2] Warsaw University of Technology, Warsaw/PL [3] Polish Academy of Science, Warsaw/PL
16:30 – 16:50	**Control of microbial corrosion in sewers using a green biocidal agent** G. Jiang[1]; X. Sun[1]; P. Bond[1]; J. Keller[1]; Z. Yuan[1] [1] The University of Queensland, St Lucia/AU
16:50 – 17:10	**Theoretical design of new benzimidazole derivatives as steel corrosion inhibitors in CO2 corrosive environment: DFT and Monte Carlo approaches** I. Obot King Fahd University of Petroleum and Minerals, Dhahran/SA

Microbial Corrosion	
11:00 – 12:40	**Room: Galerie C**
Chair	**P. Cristiani**, RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
11:00 – 11:40 **Keynote**	**Predicting and managing microbially-influenced corrosion: current understanding and future perspectives** I. Beech University of Oklahoma, Norman/US
11:40 – 12:00	**Concrete sewer corrosion due to wastewater inoculation** G. Jiang[1], J. Keller[1], Z. Yuan[1], P. Bond[1], X. Sun[1], M. Zhou[1], T. Chiu[1] [1] The University of Queensland, St Lucia/AU

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

12:00 – 12:20	**Electrochemical investigations of materials for biogas plants** R. Feser[1], A. Krebs[1], D. Wagner[2] [1] Fachhochschule Südwestfalen, Iserlohn/DE; [2] APMA Services GmbH, Saarlouis/DE
12:20 – 12:40	**Biofouling and biocorrosion in carbon steel welds** V. Liduino[1], M. Lutterbach[2], A. Ferreira[3], J. Ribeiro[3], E. Sérvulo[1] [1] UFRJ - Universidade Federal do Rio de Janeiro, Rio de Janeiro/BR [2] INT - National Institute of Technology, Rio de Janeiro/BR [3] National Industrial Training Service, Rio de Janeiro/BR
12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**
Microbial Corrosion	
14:00 – 15:40	**Room: Galerie C**
Chair	**P. Cristiani**, RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
14:00 – 14:20	**Cyclodextrin modified metal surface for inhibition of (a)biotic corrosion** D. Holuscha[1], C. Thyssen[2], W. Sand[2], W. Fürbeth[1] [1] DECHEMA - Forschungsinstitut, Frankfurt am Main/DE [2] Universität Duisburg-Essen, Essen/DE
14:20 – 14:40	**Addition of sodium hydroxilate to sea water inhibited souring and steel corrosion by microbes in oil field water** Y. Tanji Tokyo Institute of Technology, Yokohama/JP
14:40 – 15:00	**Penicillium chrysogenum influenced corrosion** K. Mataqi Kuwait Institute for Scientific Research, Kuwait City/KW
15:00 – 15:20	**Microbiologically influenced corrosion resistant behavior of a novel Cu-bearing antibacterial 2205 duplex stainless steel in the presence of aerobic marine Pseudomonas aeruginosa biofilm** D. Xu[1], J. Xia[1], K. Yang[1] [1] Chinese Academy of Sciences, Shenyang/CN
15:20 – 15:40	**Investigation of the Ag-Cu ions' effect on microbial activity of sulphate reducing bacteria leading to corrosion** S. Arkan[1], E. Sungur[1], N. Cansever[2], T. Unsal Istek[1] [1] Istanbul University, Istanbul/TR; [2] Yildiz Technical University, Esenler, Istanbul/TR
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**

MONDAY, 07.09.2015 SCIENTIFIC LECTURES PROGRAMME

Microbial Corrosion	
16:10 – 17:30	**Room: Galerie C**
Chair	**P. Cristiani**, RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
16:10 – 16:50 **Keynote**	**Microbial influenced corrosion (MIC) in the oil and gas industry** **T. Liengen**[1], **S. Olsen**[1], [1] Statoil ASA, Porsgrunn/NO
16:50 – 17:10	**Investigating the corrosion effect of high salinity oil field produced water on metal electrodes for microbial fuel cells** **A. Colombo**[1], **P. Roustazadeh Sheikhyousefi**[2], **P. Cristiani**[3], **M. Nasr Esfahany**[2], **S. Trasatti**[1] [1] Università degli Studi di Milano, Milano/IT; [2] Isfahan University of Technology, Isfahan/IR; [3] RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
17:10 – 17:30	**Identification and biotyping of bacteria isolated from petroleum installation in Kuwait** **I. Al-Maheimid**[1], **K. Mataqi**[2], **A. Al-Jasmi**[1] [1] Kuwait Oil Company, Ahmadi/KW [2] Kuwait Institute for Scientific Research, Kuwait City/KW

Corrosion Reliability of Electronic Devices	
11:00 – 12:40	**Room: Galerie A**
Chairs	**R. Ambat**, Technical University of Denmark Lyngby/DK **H. Schweigart**, Zestron Europe, Ingolstadt/DE
11:00 – 11:20	**Corrosion reliability of electronics: prediction, prevention, and control** **R. Ambat** , Technical University of Denmark, Lyngby/DK
11:20 – 11:40	**Corrosion prevention by assembly design** **H. Schweigart**, Zestron Europe, Ingolstadt/DE
11:40 – 12:00	**Phosphorous based flame retardants for polyamides and corrosion** **L. Müller**[1], **H. Steffes**[2] [1] Robert Bosch GmbH, Reutlingen/DE; [2] Bosch Power Tec GmbH, Böblingen/DE
12:00 – 12:20	**Effect of iodine on the corrosion of Au-Al wire bond interconnects** **V. Verdingovas**[1], **L. Müller**[2], **M. Stendahl Jellesen**[1], **R. Ambat**[1] [1] Technical University of Denmark, Lyngby/DK; [2] Robert Bosch GmbH, Reutlingen/DE
12:20 – 12:40	**Cost-efficient feed-throughs with polymers – Interphase design, benchmarking & tightness** **A. Holm**[1], **J. Jacobsen**[1], **J. Krog**[1], **A. Riis**[1], **J. Harming**[1], **L. Rimestad**[1] [1] Grundfos Holding A/S, Bjerringbro/DK

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12:40 – 14:00	**LUNCH BREAK / Room: Exhibition Area**
Corrosion Reliability of Electronic Devices	
14:00 – 15:40	**Room: Galerie A**
Chair	**R. Ambat**, Technical University of Denmark, Lyngby/DK
14:00 – 14:20	**Formation of semiconductive electrochemical migration** **S. Mattern**[1], **L. Henneken**[1], **M. Nowottnick**[2] [1] Robert Bosch GmbH, Schwieberdingen/DE; [2] Universität Rostock, Rostock/DE
14:20 – 14:40	**Corrosion of printed circuit board assemblies (PCBAs) – Field experience and counter measures** **J.-H. Klingel**, Kunststoff-Chemische Produkte GmbH, Friolzheim/DE
14:40 – 15:00	**Contamination, potential bias and humidity effects on electrical performance and corrosion reliability of electronic devices** **K. Piotrowska**[1], **V. Verdingovas**[1], **M. Stendahl Jellesen**[1], **R. Ambat**[1] [1] Technical University of Denmark, Lyngby/DK
15:00 – 15:20	**Experimental study of humidity distribution inside an electronic enclosure and effect of internal heating** **H. Conseil**[1], **M. Jellesen**[1], **R. Ambat**[1] [1] Technical University of Denmark, Lyngby/DK
15:20 – 15:40	**Humidity related failure mechanisms and corresponding tests** **K. Schmidt**[1], **A. Kentved**[1] [1] DELTA, Hoersholm/DK
15:40 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Corrosion Reliability of Electronic Devices	
16:10 – 16:50	**Room: Galerie A**
Chair	**H. Schweigart**, Zestron Europe, Ingolstadt/DE
16:10 – 16:30	**Thermal effects in electronic systems as an implication of electrochemical corrosion** **F. Petri**, Robert Bosch GmbH, Reutlingen/DE
16:30 – 16:50	**Sulphur induced corrosion of electronics** **M. Jellesen**[1], **V. Verdingovas**[1], **S. Davidsdottir**[1], **R. Ambat**[1] [1] Technical University of Denmark, Lyngby/DK

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Plenary Lecture	
09:00 – 09:45	**Room: Saal 1**
	Recent advances in modeling of corrosion of mild steel in CO2 and H2S aqueous environments **S. Nesic[1]**, [1] Ohio University, Athens, Ohio/US
09:45 – 10:00	**BREAK FOR CHANGING LECTURE HALL**

Metallic Coatings	
10:00 – 11:20	**Room: Saal 11**
Chairs	**M.-G. Olivier**, University of Mons, Mons/BE **J. Fernandes**, Universidade Técnica de Lisboa, Lisbon/PT
10:00 – 10:20	**Corrosion protection by zinc-magnesium coatings on steel studied by electrochemical methods** **F. Andreatta[1], J. Rodriguez[2], M. Mouanga[2], A. Lanzutti[1], L. Fedrizzi[1], M. Olivier[2]** [1] University of Udine, Udine/IT; [2] University of Mons, Mons/BE
10:20 – 10:40	**Relationship between corrosion performance and microstructure of Zn-Al and Zn-Al-Mg model alloys** **T. Prosek[1], D. Thierry[1], J. Hagström[2], D. Persson[2], N. Fuertes Casals[2], F. Lindberg[2], C. Taxén[2], J. Serak[3]** [1] Institut de la Corrosion, Brest/FR; [2] Swerea KIMAB AB, Kista/SE [3] University of Chemistry and Technology, Prague/CZ
10:40 – 11:00	**Corrosion assessment of new ZnAlMg galvanized steel by single dip technology for offshore applications.** **A. Álvarez Pampliega[1], E. Thomas[1], J. Balduyck[2], T. Pinger[3], A. Tomandl[4], D. Soccol[5]** [1] METALogic N.V., Heverlee/BE; [2] Galvapower Group N.V., Hasselt/BE [3] ZINQ Technologie GmbH, Gelsenkirchen/DE [4] Hilti Corporation, Schaan/LI; [5] METALogic, /BE
11:00 – 11:20	**Corrosion mechanism of Zn-Mg-Al hot-dip coated steel sheet** **T. Kim[1], M. Oh[1], S. Kim[1], J. Kim[1]** [1] POSCO, Gwangyang/KR
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Metallic Coatings	
11:50 – 13:10	**Room: Saal 11**

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Chairs	**M. Olivier**, University of Mons, Mons/BE **J. Fernandes**, Universidade Técnica de Lisboa, Lisbon/PT
11:50 – 12:10	**Plastic strain effect on the corrosion resistance of continuous hot-dip galvanized steel** **M. Biskri[1], M. Touzet[2], A. Poulon-Quintin[3], M. Puiggali[1]; O. Devos[1]** [1] Université de Bordeaux, Talence/FR; [2] Bordeaux INP, Talence/FR [3] Université de Bordeaux, Pessac/FR
12:10 – 12:30	**Effect of the pulse current on the microstructure and corrosion properties of hard chromium deposits obtained using trivalent chromium baths** **M. Lekka[1], M. Poelman[2], M. Olivier[3], L. Fedrizzi[1]** [1] University of Udine, Udine/IT; [2] Materia Nova, Mons/BE [3] University of Mons, Mons/BE
12:30 – 12:50	**Relationships between metallurgical state and corrosion processes in electrodeposited Ni-W nanostructured alloys** **N. Shakibi Nia[1], M. Lagarde[1], J. Creus[1], X. Feaugas[1], C. Savall[1]** [1] Université de la Rochelle, La Rochelle/FR
12:50 – 13:09	**Corrosion characterisation of ruthenium films deposited by RF sputtering** **F. Moyo[1], J. Van Der Merwe[1], D. Wamwangi[1]** [1] University of the Witwatersrand, Johannesburg/ZA
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Metallic Coatings	
14:30 – 15:50	**Room: Saal 11**
Chairs	**F. Deflorian**, University of Trento, Trento/IT **T. Prosek**, Institut de la Corrosion, Brest/FR
14:30 – 14:50	**Development of alternative coatings to cadmium** **P. Masset[1], A. Bund[2], A. Förg[1], A. Ispas[2], L. Libralesso[3], C. Nouvellon[4], J. Ratajski[5], P. Rokicki[6], L. Szparaga[5], C. Vlaic[2], G. Wolf[1]** [1] Fraunhofer Institute UMSICHT, Sulzbach-Rosenberg/DE [2] TU Ilmenau, Ilmenau/DE; [3] CRM Group, Liege/BE; [4] Materia Nova, Mons/BE [5] Koszalin University of Technology, Koszalin/PL [6] Rzeszow University of Technology, Rzeszow/PL
14:50 – 15:10	**Influence of silicon on the electrochemical behaviour of aluminized steel** **B. Lemmens[1], A. Lutz[2], B. Corlu[3], J. De Strycker[3], I. De Graeve[2], K. Verbeken[1]** [1] Ghent University, Zwijnaarde/BE [2] Vrije Universiteit Brussel (VUB), Brussel/BE [3] ArcelorMittal Global R&D Gent, Zelzate/BE

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:10 – 15:30	**Aluminium surface modification by zinc diffusion layers for improved corrosion resistance** M. Stepanova[1], O. Lunder[2], J. Nordlien[3], K. Nisancioglu[1] [1] Norwegian University of Science and Technology, Trondheim/NO; [2] SINTEF Materials and Chemistry, Trondheim/NO; [3] Sapa Precision Tubing, Håvik/NO
15:30 – 15:50	**Surface modification of laser alloyed UNS G10150 steel with Al+Sn powders: artificial neural model approach** O. Fatoba[1], P. Popoola[1], S. Pityana[2] [1] Tshwane University of Technology, Pretoria/ZA [2] Centre for Scientific and Industrial Research, Pretoria/ZA

Mechanisms, Methods & Modelling	
10:00 – 11:20	**Room: Galerie B**
Chairs	**H. McMurray**, University of Swansea, Swansea, Wales/GB
10:00 – 10:20	**Hydrodynamic effect of entry side cell on hydrogen permeation into steel sheet** K. Fushimi[1], M. Jin[1], Y. Yamamoto[1], Y. Kitagawa[1]vT. Nakanishi[1], Y. Hasegawa[1] [1] Hokkaido University, Sapporo/JP
10:20 – 10:40	**Hydrogen detection with scanning Kelvin probe in hydrogen embrittlement studies** G. Schimo[1], W. Burgstaller[2], A. Hassel[2] [1] CEST Competence Centre for Electrochemical Surface Technology, Wiener Neustadt/AT; [2] Johannes Kepler Universität Linz, Linz/AT
10:40 – 11:00	**Mechanistic study of coating failure using local electrochemical methods** Z. Kefallinou[1], S. Lyon[1], [1] The University of Manchester, Manchester/GB
11:00 – 11:20	**Atmospheric corrosion of iron induced by sessile droplets from aqueous saline solutions** V. Soulié[1], F. Lequien[2], D. Féron[2], H. Riegler[1], P. Prené[2], T. Zemb[3], H. Moehwald[1] [1] Max Planck Institute of Colloids and Interfaces, Potsdam/DE [2] CEA Saclay, Gif-sur-Yvette/FR [3] Institut de Chimie Séparative de Marcoule, Bagnols-sur-Cèze/FR
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
14:00 – 15:40	**Room: Galerie B**

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Chair	**K. Fushimi**, Hokkaido University, Sapporo/JP
11:50 – 12:10	**The role of tin in suppressing atmospheric corrosion kinetics on tin coated and tin-iron intermetallic coated steels** H. McMurray[1], G. Williams[1], N. Wint[1], A. deVooys[2], S. Geary[1] [1] University of Swansea, Swansea, Wales/GB; [2] Tata Steel, Ijmuiden/NL
12:10 – 12:30	**Comparison between computational modelling of galvanic corrosion and experimental investigation on localised corrosion activities of mild steel in thin electrolyte layer NaCl solution** W. Shi[1], N. Stevens[1], S. Lyon[1] [1] The University of Manchester, Manchester/GB
12:30 – 12:50	**Corrosion mechanisms of brass-coated steel in confined aqueous environment** A. Romaine, MATEIS, INSA-Lyon, Villeurbanne Cedex/FR
12:50 – 13:10	**Using a micro-optode for overcoming the negative influence of the amperometric micro-probe on localized corrosion measurements** S. Lamaka[1], M. Taryba[1], [1] University of Lisbon, Lisbon/PT
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
14:30 – 15:50	**Room: Galerie B**
Chair	**G. Mori**, Montanuniversität Leoben, Leoben/AT
14:30 – 14:50	**A fundamental study of the protective role of hydrozincite formed on brass in chloride-containing atmospheres** C. Leygraf[1], X. Zhang[1], I. Odnevall Wallinder[1] [1] KTH Royal Institute of Technology, Stockholm/SE
14:50 – 15:10	**Atmospheric corrosion monitoring of metals using electrochemical impedance** H. Katayama[1], R. Miyahara[2], Y. Hoshi[2], I. Shitanda[2], M. Itagaki[2] [1] National Institute for Materials Science, Tsukuba/JP; [2] Tokyo University of Science, Noda/JP
15:10 – 15:30	**Influence of Mg substitution and rare earths composition on the corrosion mechanism of intermetallics used for Ni-MH batteries.** J. Monnier[1], V. Charbonner[1], J. Zhang[1], M. Latroche[2], S. Joiret[3], B. Puga[3], L. Goubault[4], P. Bernard[4] [1] ICMPE - CNRS, Thiais/FR; [2] CNRS, Thiais/FR; [3] UPMC - CNRS, Paris/FR [4] Saft SA, Bordeaux/FR

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:30 – 15:50	**Atom Probe Microscopy of Oxidation Products** I. McCarroll[1], J. Cairney[1], A. la Fontaine[1], P. Felfer[1], J. Zhang[2], D. Young[2] [1] The University of Sydney, Sydney/AU; [2] University of New South Wales, /AU
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
16:10 – 17:30	**Room: Galerie B**
Chair	**G. Mori**, Montanuniversität Leoben, Leoben/AT
16:10 – 16:30	**Pattern recognition on electrochemical noise of an epoxy coating/metal system under marine alternating hydrostatic pressure** F. Meng[1], L. Liu[1], W. Tian[1], L. Ying[1], F. Wang[1] [1] Chinese Academy of Sciences, Shenyang/CN
16:30 – 16:50	**From vacancy migration to the steady state of passive films grown on pure Cr and NiCr or NiCrFe alloys** B. Ter-Ovanessian[1], C. Boissy[1], B. Normand[1], [1] INSA - Lyon, Villeurbanne/FR
16:50 – 17:10	**Mechanism of corrosion and passivation of nickel in methanol solutions of electrolytes** U. Lelek-Borkowska[1], M. Bisztyga[1], M. Gruszka[1], J. Banas[1] [1] AGH-University of Science and Technology, Krakow/PL
17:10 – 17:30	**Semiconducting properties of surface oxides formed on austenitic stainless steel in NaCl solution** S. Al Saadi[1], Y. Yi[1], P. Cho[1], C. Jang[2], P. Beeley[1] [1] Khalifa University of Science, Technology & Research, Abu Dhabi/AE [2] Korea Advanced Institute of Science and Technology, Daejeon/KR

Nuclear Corrosion	
10:00 – 11:20	**Room: Saal 10**
Chair	**D. Féron**, CEA Saclay, Gif-sur-Yvette/FR
10:00 – 10:20 **Keynote**	**New corrosion issues in the nuclear industry today – An update** W. Bogaerts[1], J. Zheng[2] [1] Katholieke Universiteit (KU) Leuven, Leuven/BE [2] Technologica Group - INS Div., Meerhout/BE

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

10:20 – 10:40	**Wear-corrosion performances of Ni/WC nano-structured composite coatings obtained by electrochemical codeposition** L. Benea[1], P. Ponthiaux[2], E. Dănăilă[1], N. Caron[3], O. Raquet[3] [1] Dunarea de Jos University of Galati, Galati/RO [2] Ecole Centrale Paris, Châtenay-Malabry/FR; [3] CEA Saclay, Gif-sur-Yvette Cedex/FR
10:40 – 11:00	**Effect of implantation defects on 316 L oxidation in PWR primary medium** S. Perrin[1], M. Dumerval[1], L. Marchetti[1], F. Jomard[2], Y. Wouters[3] [1] CEA, Gif-sur-Yvette/FR; [2] CNRS, Versailles/FR [3] University of Grenoble, Saint Martin d´Hères/FR
11:00 – 11:20	**Development of innovative high temperature cleanup of steam generator tubes by acidic steam solution** V. Yurmanov[1], K. Shutko[1], E. Yurmanov[1], A. Polevich[2], A. Kirilina[2] [1] NIKIET, Moscow/RU; [2] VTI, Moscow/RU
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Nuclear Corrosion	
11:50 – 13:10	**Room: Saal 10**
Chair	**A. Legat**, Slovenian National Building and Civil Engineering Institute [ZAG], Ljubljana/SI **T. Couvant**, Electricité de France (EDF), Moret sur Loing/DE
11:50 – 12:10 **Keynote**	**Effect of Zn water chemistry on surface film and corrosion of various materials in PWR primary water** E.-H. Han[1], X. Liu[1], X. Wu[1] [1] Institute of Metal Research, Chinese Academy of Sciences, Shenyang/CN
12:10 – 12:30	**Helium effects on irradiation assisted stress corrosion cracking** I. Villacampa Roses[1], J. Chen[1], P. Spätig[1], H. Seifert[1] [1] Paul Scherrer Institute, Villigen PSI/CH
12:30 – 12:50	**Surface oxidation phenomena of Ni-based alloys in PWR primary water environments** Y. Lim[1], S. Hwang[1], S. Kim[1] [1] Korea Atomic Energy Research Institute, Daejeon/KR
12:50 – 13:10	**Corrosion characteristic of Zr alloys under lithium conditions** A. Krausová[1], J. Macák[1], P. Sajdl[1], V. Vrtílková[2] [1] University of Chemistry and Technology Prague, Praha/CZ [2] UJP PRAHA a.s., Praha/CZ

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Nuclear Corrosion	
14:30 – 15:50	**Room: Saal 10**
Chairs	**S. Perrin**, CEA, Gif-sur-Yvette/FR **P. Andresen**, GE Global Research Center, Schenectady/US
14:30 – 14:50	**Platinum deposition behaviour on stainless steel surfaces in a boiling water reactor plant** S. Ritter[1], P. Grundler[1], L. Veleva[1], G. Ledergerber[2] [1] Paul Scherrer Institut (PSI), Villigen/CH; [2] Kernkraftwerk Leibstadt (KKL), Leibstadt/CH
14:50 – 15:10	**Using advanced steels as near term implementation for accident tolerant fuel cladding in light water reactors** R. Rebak[1], E. Dolley[1], [1] GE Global Research, Schenectady/US
15:10 – 15:30	**In-situ imaging of corrosion processes in nuclear fuel cladding** A. Laferrere[1], R. Burrows[1], L. Picco[2], O. Payton[2], R. Clark[3], C. Glover[3], G. Williams[3] [1] National Nuclear Laboratory, Stonehouse/GB; [2] University of Bristol, Bristol/GB; [3] University of Swansea, Wales/GB
15:30 – 15:50	**High temperature behavior of candidate alloys in helium environments** C. Tsai[1], T.-K. Yeh[1], M. Wang[1], [1] National Tsing Hua University, Hsinchu City/TW
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Nuclear Corrosion	
16:10 – 17:30	**Room: Saal 10**
Chair	**S. Ritter**, Paul Scherrer Institut (PSI), Villigen PSI/CH
16:10 – 16:30 **Keynote**	**Evolution in our understanding of stress corrosion cracking** P. Andresen, GE Global Research Center, Schenectady/US
16:30 – 16:50	**Alternative dissolution and oxidation behavior of 316LN steel at 550°C in liquid sodium containing low concentration of oxygen** J.-L. Courouau[1], M. Rivollier[1], V. Lorentz[1], M. Tabarant[1] [1] CEA-Saclay, Gif-sur-Yvette/FR
16:50 – 17:10	**Oxidation of 316L(N) stainless steel in liquid sodium** M. Rivollier[1], J. Courouau[1], M. Giorgi[2], M. Tabarant[1] [1] CEA-Saclay, Gif-sur-Yvette/FR; [2] École Centrale Paris, Chatenay-Malabry/FR

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Corrosion in Oil and Gas	
10:00 – 11:20	**Room: Saal 1**
Chair	**S. Paterson**, Shell Projects & Technology, Amsterdam/NL **M. Wilms**, Shell Global Solutions International, Amsterdam/NL
10:00 – 10:20	**Assessment of the CO2 corrosion rate at weld defects on carbon steel backing pipe with an alloy 625 cladding** J. Halma[1], M. Wilms[1], P. Dent[2], R. Doyle[2] [1] Shell Global Solutions International, Amsterdam/NL; [2] Exova Group, Dudley/GB
10:20 – 10:40	**Top of line corrosion** R. Nyborg[1], G. Svenningsen[1], [1] Institute for Energy Technology, Kjeller/NO
10:40 – 11:00	**Electrochemistry of iron sulphide and its galvanic coupling to carbon steel** M. Tjelta[1], J. Kvarekvål[1] [1] Institute for Energy Technology, Kjeller/NO
11:00 – 11:20	**The effect of monoethylene glycol on CO2/H2S corrosion of API 5L X52 steel** M. Javidi[1], M. Khodaparast[1], [1] Shiraz University, Shiraz/IR
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Corrosion in Oil and Gas	
11:50 – 12:50	**Room: Saal 1**
Chair	**S. Paterson**, Shell Projects & Technology, Amsterdam/NL
11:50 – 12:10	**Elucidating sour corrosion scales** K. Cooper[1], G. Joshi[1], D. Engelberg[1], R. Lindsay[1] [1] The University of Manchester, Manchester/GB
12:10 – 12:30	**Novel experimental techniques for corrosion monitoring** S. Srinivasan[1], I. Kosacki[1] [1] Honeywell Process Solutions, Houston/US
12:30 – 12:50	**Investigating the use of electrochemical techniques as tools to evaluate the pitting resistance of stainless steel 304 tank metallurgy in contact with neat chemical products** Y. De-Abreu[1], J. Moloney[1] [1] NALCO Champion, An Ecolab Company, Sugar Land/US

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Coatings for High Temperatures

10:00 – 11:20 Room: Saal 12

Chair **M. Galetz**, DECHEMA - Forschungsinstitut, Frankfurt/DE

10:00 – 10:20
Corrosion resistant materials for biomass gasification
P. Masset[1], A. Wiltner[2], G. Walther[2], T. Weißgräber[2], M. Hülscher[3], E. Drechsler[1], H. Hill[4], A. Ossenberg-Engels[5]
[1] Fraunhofer Institute UMSICHT, Sulzbach-Rosenberg/DE
[2] Fraunhofer IFAM, Dresden/DE; [3] Qalovis GmbH, Laer/DE
[4] Deutsche Edelstahlwerke, Krefeld/DE; [5] VDM Metals GmbH, Werdohl/DE

10:20 – 10:40
The effect of KCl on Fe-Cr-Al sputter coatings in the high temperature chloride environment at 550°C
D. Orlicka[1], N. Simms[1], T. Hussain[2], J. Nicholls[1]
[1] Cranfield University, Cranfield, Bedfordshire/GB
[2] University of Nottingham, Nottingham/GB

10:40 – 11:00
Influence of silicon and refractory metals on the corrosion-erosion mechanisms under biomass firing conditions
R. Pflumm[1], B. Adamczyk[2], C. Adam[2], M. Galetz[1]
[1] DECHEMA - Forschungsinstitut, Frankfurt am Main/DE
[2] BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE

11:00 – 11:20
Evaluation of a novel exothermic reaction synthesised Ni Al intermetallic coating for the corrosion protection of boiler tubes
A. Pidcock[1], M. Craig[1], N. Simms[1], J. Nicholls[1]
[1] Cranfield University, Cranfield, Bedfordshire/GB

11:20 – 11:50 **COFFEE BREAK / Room: Exhibition Area**

Coatings for High Temperatures

11:50 – 12:30 Room: Saal 12

Chair **M. Galetz**, DECHEMA - Forschungsinstitut, Frankfurt/DE

11:50 – 12:10
Effect of nanocrystalline mixed rare earth oxide coatings on the high temperature oxidation behavior of Fe-20Cr alloy
L. Ramanathan[1], S. Fernandes[1], O. Correa[1]
[1] Instituto de Pesquisas Energéticas e Nucleares, São Paulo/BR

12:10 – 12:30
Influences of (Ti, Al, Si) N coatings on oxidation and corrosion behaviours and mechanical properties of titanium alloys
L. Xin[1], S. Zhu[1], F. Wang[1], [1] Chinese Academy of Sciences, Shenyang/CN

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Automotive Corrosion

14:30 – 15:50 Room: Saal 12

Chair **F. Hannour**, Qatar National Research Fund, Doha/QA

14:30 – 14:50 **Keynote**
I3: Integrated process for identifying and developing breakthrough innovations in the global automotive industry
L. Otremba, CooperStandard, /US

14:50 – 15:10
Electrochemical and microstructural characteristics of 3xxx based interlayers in high strength brazing sheets
T. Kremmer[1], H. Antrekowitsch[1], G. Mori[1], P. Oberhauser[2], G. Hanko[2]
[1] Montanuniversität Leoben, Leoben/AT; [2] AMAG rolling GmbH, Ranshofen/AT

15:10 – 15:30
Control of corrosion and stiction phenomena in automotive brake discs
A. Sin[1], F. Lupone[1], A. Angeleri[1], V. Galardo[1], L. Martinotto[1], A. De Nicolò[2], F. Andreatta[2], L. Fedrizzi[2]
[1] ITT Motion Technologies, Barge/IT; [2] University of Udine, Udine/IT

15:30 – 15:50
Corrosion protection for mass-produced, light-weight automotive bodies
N. Hosking[1], M. Nichols[1], [1] Ford Motor Company Ltd., Dearborn/US

15:50 – 16:10 **COFFEE BREAK / Room: Exhibition Area**

Automotive Corrosion

16:10 – 17:30 Room: Saal 12

Chair **F. Hannour**, Qatar National Research Fund, Doha/QA

16:10 – 16:30
Digital image analysis of automotive steels with protective coatings exposed to maritime atmosphere
O. Startsev[1], D. Ruzaev[2], I. Medvedev[1], A. Frolov[1]
[1] All-Russian Scientific-Research Institute of Aviation Materials, Gelendzhik/RU
[2] JSC AvtoVAZ, Tolyatti/RU

16:30 – 16:49
Analysis of calcareous deposition layers forming during AM50 magnesium alloy corrosion in presence of Ca2+– Corrosion mechanism
M. Grabowski[1/3], D. Blücher[2], M. Korte[3], S. Virtanen[1]
[1] Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen/DE
[2] SINTEF Materials and Chemistry, Trondheim/NO; [3] Audi AG, Ingolstadt/DE

16:49 – 17:09
Steam based nano-composite coating for aluminium alloys
R. Ud Din[1], M. Jellesen[1], R. Ambat[1], [1] Technical University of Denmark, Lyngby/DK

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

17:09 – 17:29	**Corrosion mechanisms of Zn(Mg,Al) coated steel: The effect of HCO3- and NH4+ ions on the intrinsic reactivity of the coating** P. Volovitch[1], M. Azevedo[2], C. Allély[2], V. Shkirskiy[1], K. Ogle[1] [1] Chimie ParisTech, Paris/FR; [2] ArcelorMittal Research SA, Maizières-lès-Metz/FR

Corrosion and Scale Inhibition	
10:00 – 11:20	**Room: Saal 2**
Chairs	**G. Schmitt**, IFINKOR-Institute for Maintenance and Corrosion Protection Technolgies n.f.p.Ltd., Iserlohn/DE **W. Hater**, Kurita Europe APW GmbH, Düsseldorf/DE
10:00 – 10:20	**Efficiency of a biodegradable antiscalant against barite under geothermal plant conditions** A. Stratmann[1], W. Hater[1], C. Forêt[2] [1] Kurita Europe APW GmbH, Düsseldorf/DE; [2] ICL France SAS, Vaas/FR
10:20 – 10:40	**Bioinspired "green" scale inhibitors to combat silica scale deposits** K. Demadis, University of Crete, Heraklion/GR
10:40 – 11:00	**A new approach to elucidating the surface interaction of organic corrosion inhibitors** D. Chekulaev[1], M. Torres Molina[1], A. Thomas[1], R. Lindsay[1], D. Collison[1], R. Winpenny[1] [1] The University of Manchester, Manchester/GB
11:00 – 11:20	**Ammonium (2,4-dimethylphenyl)-dithiocarbamate as an environmentally friendly corrosion inhibitor for steel** N. Kicir[1], G. Tansug[1], T. Tüken[1], M. Erbil[1], [1] Çukurova University, Adana/TR

Microbial Corrosion	
10:00 – 11:20	**Room: Galerie C**
Chair	**P. Cristiani**, RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
10:00 – 10:20	**Unusual corrosion of bronze: a new MIC phenomenon in a hydroelectric power plant** P. Linhardt, TU Wien, Wien/AT
10:20 – 10:40	**The role of Pseudomonas fluorescens on the corrosion of Tin Bronze archaeological analogues: morphology and mechanisms** G. Ghiara[1], P. Piccardo[1], C. Grande[1], L. Repetto[1], [1] University of Genoa, Genova/IT
10:40 – 11:00	**Effect of biofilm community members on biocorrosion in copper drinking water systems** C. Galarce[1], D. Fischer[1], I. Vargas[1], G. Pizarro[1], [1] Pontificia Universidad Católica, Santiago/CL

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

11:00 – 11:20	**Microbially influenced corrosion and inhibition of zinc coatings by Aspergillus niger** M. Zemanová[1], J. Vávrová[1], L. Krištofíková[1], V. Jorík[1] [1] Slovak University of Technology, Bratislava/SK
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**

Microbial Corrosion	
11:50 – 12:50	**Room: Galerie C**
Chair	**P. Cristiani**, RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
11:50 – 12:10	**Corrosion of steel in Toarcian argillite in presence of mix of bacterial strains: complementarity of µRaman, XRD and FESEM** F. Mercier-Bion[1], Y. Leon[1], D. Neff[1], L. Urios[2], C. Wittebroodt[3], M. Flachet[3], P. Dillmann[1] [1] CEA Saclay, Gif-sur-Yvette/FR [2] UPPA - Université de Pau et des Pays de l'Adour, Pau/FR [3] IRSN - Institut Radioprotection Sûreté Nucléaire, Fontenay-aux-Roses/FR
12:10 – 12:30	**Bi-model character for copper alloy corrosion and implications for long-term MIC** R. Melchers, University of Newcastle, Newcastle/AU
12:30 – 12:50	**Impedance analysis of 70CU-30NI alloy at the corrosion potential in wastewater** M. Carvalho[1], P. Cristiani[1], B. Tribollet[2] [1] RSE-Ricerca sul Sistema Energetico S.p.A., Milano/IT; [2] CNRS, Paris/FR

Marine Corrosion	
14:30 – 15:50	**Room: Galerie C**
Chair	**U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE
14:30 – 14:50	**Localized corrosion of carbon steel in marine media: galvanic coupling and heterogeneity of the corrosion product layer** P. Refait[1], M. Jeannin[1], R. Sabot[1], A. Grolleau[2], E. François[2] [1] Université de la Rochelle, La Rochelle/FR; [2] DCNS Research, Cherbourg-Octeville/FR
14:50 – 15:10	**Potential ennoblement of stainless steel: Influence of oxygen content in sea water and pressure** D. Thierry[1], N. Larché[2], L. Charles[2] [1] Institut de la Corrosion, Brest/FR; [2] French Corrosion Institute, Brest/FR

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:10 – 15:30	**Corrosion behavior of stainless steel AISI 470 in pacific seawater** J. Aguirre[1], M. Walczak[1], J. Armijo[1], L. Daille[1], D. Fischer[1], C. Galarce[1], R. De la Iglesia[1], G. Pizarro[1], I. Vargas[1] [1] Pontificia Universidad Católica de Chile, Santiago/CL
15:30 – 15:50	**Corrosion assessment in coastal seas** M. Schorr[1], B. Valdez[1], R. Orozco[2], R. Galvan[2], A. Eliezer[3], T. Perez[4], R. Ramos[1], T. Prieto[1], J. Bastidas[5] [1] Universidad Autónoma de Baja California, Mexicali/MX; [2] Universidad Veracruzana, Veracruz/MX; [3] Sami Shamoon College of Engineering, Ber Sheva/IL [4] Universidad Autónoma de Campeche, Campeche/MX; [5] National Center for Metallurgical Research, Madrid/ES
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Marine Corrosion	
16:10 – 17:10	**Room: Galerie C**
Chair	**U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE
16:10 – 16:30	**Effect of aqua blasting, sand blasting, and laser engraving on the corrosion resistance of type 316 stainless steel** B. Krawczyk[1], D. Engelberg[1], [1] University of Manchester, Manchester/GB
16:30 – 16:50	**A holistic concept for coating monitoring and maintenance on offshore wind power constructions** S. Buchbach[1], A. Momber[2], P. Plagemann[1], I. Winkels[3] [1] Fraunhofer IFAM, Bremen/DE; [2] Muehlhan AG, Hamburg/DE [3] Sika Deutschland GmbH, Vaihingen/DE
16:50 – 17:10	**Failure behavior of several epoxy organic coatings in ocean pressure environments** L. Li[1], L. Ying[1], F. Wang[1], [1] Chinese Academy of Sciences, ShenYang/CN

Corrosion Control in Aerospace	
10:00 – 11:20	**Room: Galerie A**
Chair	**T. Hack**, Airbus Group Innovations, München/DE
10:00 – 10:20	**Incremental innovation - requirements and industrial needs for aircraft surface protection systems** H. Lohner, [1]Airbus Operations, Bremen/DE

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

10:20 – 10:40	**Anticipating, managing, and preventing corrosion at NASA's Kennedy Space Center** L. Calle, NASA, Merritt Island, Florida/US
10:40 – 11:00	**Application of Cr(VI)-free primers with phosphoric/sulphuric acid anodizing for aerospace aluminium alloys** J. de Kok[1], A. Langeveld[1], M. Obrebska[1], [1] Fokker Aerostrcutures BV, Papendrecht/NL
11:00 – 11:20	**Synergetic corrosion protection by dual organic-inorganic inhibitor release** S. Garcia[1], S. van der Zwaag[1], M. Zheludkevich[2], A. Bastos[2], J. Tedim[2], M. Abdolahzadeh[1] [1] Delft University of Technology, Delft/NL [2] Universidade de Aveiro, Aveiro/PT
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Corrosion Control in Aerospace	
11:50 – 13:10	**Room: Galerie A**
Chair	**T. Hack**, Airbus Group Innovations, München/DE
11:50 – 12:10	**Lithium based corrosion inhibiting coating technology for the protection of AA2024-T3** P. Visser[1], Y. Liu[2], X. Zhou[2], L. van der Ven[3], H. Terryn[4], A. Mol[5] [1] Delft University of Technology, Delft/NL [2] The University of Manchester, Manchester/GB; [3] AkzoNobel, Sassenheim/NL [4] Vrije Universiteit Brussel (VUB), Brussel/BE; [5] TU Delft, Delft/NL
12:10 – 12:30	**Influence of inhibitors on the corrosion behavior of intermetallic (Al2Cu) – A study using micro-electrochemical cell** V. Rajan[1], L. Neelakantan[1], [1] Indian Institute of Technology Madras, Chennai/IN
12:30 – 12:50	**Effect of surface pretreatments on intermetallics of aluminium alloy AA2024** M. Ely[1], J. Światowska[1], A. Seyeux[1], S. Zanna[1], L. Klein[1], G. Hervé[2], P. Marcus[1] [1] CNRS - Chimie ParisTech, Paris/FR; [2] Socomore, Vannes/FR
12:50 – 13:10	**Atmospheric and marine corrosion of the D16 aerospace aluminum alloy protected by the composite polymer-containing coating fabricated using PEO** S. Gnedenkov[1], S. Sinebryukhov[1], V. Egorkin[1], D. Mashtalyar[1], I. Vyaliy[1], I. Medvedev[2] [1] Russian Academy of Sciences, Vladivostok/RU [2] All-Russian Scientific-Research Institute of Aviation Materials, Gelendzhik/RU

Anodising of Al / Ti	
14:30 – 15:50	**Room: Galerie A**
Chairs	**T. Hack**, Airbus Group Innovations, München/DE **W. Fürbeth**, DECHEMA - Forschungsinstitut, Frankfurt am Main/DE

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:30 – 14:50	**Cr(III)-sealed TSA as new corrosion protection for helicopter parts** M. Boutoba[1], L. Bortolotto[2] [1] Airbus Helicopters, Marignane/FR; [2] Airbus Helicopters, Donauwörth/DE
14:50 – 15:10	**Effect of sand-blasting stripping and sol-gel sealing on the performance of tartaric-sulphuric acid anodizing layers formed on clad and bare AA2024** M.-G. Olivier[1], A. Romano[1], I. Recloux[1], Y. Paint[2], A. Lanzutti[3], L. Fedrizzi[3] [1] University of Mons, Mons/BE [2] Materia Nova Research Centre, Mons/BE [3] University of Udine, Udine/IT
15:10 – 15:30	**Optimisation of phosphoric/sulphuric acid anodizing for structural adhesive bonding of AA7075T6 alclad** J. de Kok[1], J. Hofstede[1], B. Poker[1] [1] Fokker Aerostrcutures BV, Papendrecht/NL
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Anodising of Al / Ti	
16:10 – 17:30	**Room: Galerie A**
Chair	**T. Hack**, Airbus Group Innovations, München/DE
16:10 – 16:30	**Friction stir processed Al-TiO2 surface composites: DC vs. high frequency pulse and pulse reverse anodising** V. Gudla[1], F. Jensen[1], K. Bordo[1], A. Simar[2], R. Shabadi[3], R. Ambat[1] [1] Technical University of Denmark, Lyngby/DK [2] Université Catholique de Louvain, Louvain-la-Neuv/BE [3] Université Lille1, Villeneuve 'Ascq,/FR
16:30 – 16:50	**Effects of pulsed current on plasma electrolytic oxidation** E. Babka[1]; R. Mann[1], W. Hansal[1], S. Hansal[1] [1] Happy Plating Ldt., Wiener Neustadt/AT
16:50 – 17:10	**Degradation and adhesion properties of titanium oxide layers in hot/wet conditions** B. Rico-Oller[1], T. Mertens[1], M. Kolb[1], J. Wehr[1], T. Hack[1], M. Zheludkevich[2] [1] Airbus Group Innovations, München/DE [2] Helmholtz-Zentrum Geesthacht (HZG), Geesthacht/DE
17:10 – 17:30	**The corrosion and adhesion performance of barrier-type anodic aluminium oxides prepared in different electrolytes** S. Abrahami[1], T. Hauffman[2], J. de Kok[3], H. Terryn[2], A. Mol[4] [1] Materials Innovation Institute (M2i), Delft/NL; [2] Vrije Universiteit Brussel (VUB), Brussel/BE; [3] Fokker Aerostrcutures BV, Papendrecht/NL; [4] TU Delft, Delft/NL

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

Corrosion of Steel in Concrete	
10:00 – 11:20	**Room: Saal 4**
Chair	**M. Raupach**, RWTH Aachen Universität, Aachen/DE
10:00 – 10:20	**Advances in modelling entrance and transport of corrosive agents into concrete** R. Montoya[1]; J. Deconinck[1], [1] Vrije Universiteit Brussel (VUB), Brussel/BE
10:20 – 10:40	**Chloride-induced reinforcement corrosion in separation cracks after injection with PUR** M. Kosalla[1], M. Raupach[1], [1] RWTH Aachen Universität, Aachen/DE
10:40 – 11:00	**Stray current vs anodic polarization in reinforced mortar: a comparative study on steel corrosion behaviour in both regimes** Z. Chen[1], D. Koleva[1], K. van Breugel[1], [1] TU Delft, Delft/NL
11:00 – 11:20	**Influence of mixed cement based concrete on corrosion** E. Milost[1], T. Kosec[1], A. Legat[1], A. Sajna[1], V. Bokan-Bosiljkov[2] [1] Slovenian National Building and Civil Engineering Institute [ZAG], Ljubljana/SI [2] University of Ljubljana, Ljubljana/SI
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Corrosion of Steel in Concrete	
11:50 – 13:10	**Room: Saal 4**
Chair	**M. Raupach**, RWTH Aachen Universität, Aachen/DE
11:50 – 12:10	**Hydrogen evolution on galvanized rebar in fresh concrete with different chromate-reduced cements** G. Ebell[1], A. Burkert[1], J. Mietz[1] [1] BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE
12:10 – 12:30	**Effect of polymer modified cementitious coatings on chloride induced corrosion of steel in concrete** F. Bolzoni[1], S. Beretta[1], A. Brenna[1], M. Diamanti[1], M. Ormellese[1], T. Pastore[2], M. Berra[3] [1] Politecnico di Milano, Milano/IT; [2] Università degli studi di Bergamo, Dalmine, Bergamo/IT; [3] RSE-Ricerca sul Sistema Energetico S.p.A, Milano/IT
12:30 – 12:50	**Potentiometric response of chloride sensors in cementitious materials of varying chemical composition and water-to-cement ratio** F. Pargar[1], D. Koleva[1], K. van Breugel[1], [1] TU Delft, Delft/NL
12:50 – 13:10	**Stress corrosion cracking behaviour of the prestressing steels. Influence of the steel type** I. Pepenar, ICECON Group, Bucharest/RO

TUESDAY, 08.09.2015 SCIENTIFIC LECTURES PROGRAMME

13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Corrosion of Steel in Concrete	
14:30 – 15:50	**Room: Saal 4**
Chair	**M. Raupach**, RWTH Aachen Universität, Aachen/DE
14:30 – 14:50	**Technical textiles embedded in mortar for cathodic corrosion protection** A. Asgharzadeh[1], **M. Raupach[1]**, [1] RWTH Aachen Universität, Aachen/DE
14:50 – 15:10	**Corrosion protection of bridges using a textile reinforced concrete interlayer** C. Driessen[1], **M. Raupach[1]**, [1] RWTH Aachen Universität, Aachen/DE
15:10 – 15:30	**Long term performance of corrosion resistant steel reinforcement in saline environment** N. Gartner[1], **M. Bajt Leban[1]**, **T. Kosec[1]**, **A. Kranjc[1]**, **A. Legat[1]** [1] Slovenian National Building and Civil Engineering Institute [ZAG], Ljubljana/SI
15:30 – 15:50	**Chloride induced corrosion of lean duplex stainless steel reinforcements in simulated concrete pore solution** D. Bastidas[1], **C. Zapico[1]**, **I. Llorente[1]** [1] CENIM - Centro Nacional de Investigaciones Metalúrgicas, Madrid/ES
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Corrosion of Steel in Concrete	
16:10 – 17:10	**Room: Saal 4**
Chair	**M. Raupach**, RWTH Aachen Universität, Aachen/DE
16:10 – 16:30	**Development of "smart" corrosion inhibitors for reinforced concrete structures exposed to microbial environment** E. Volpi[1], **C. Foiadelli[1]**, **S. Trasatti[2]**, **D. Koleva[3]** [1] University of Milan, Milano/IT; [2] Università degli Studi di Milano, Milano/IT [3] TU Delft, Delft/NL
16:30 – 16:50	**Cathodic protection for reinforced concrete revisited: effects and side effects studied in lab conditions and a 45 years-old structure** D. Koleva[1], **K. van Breugel[1]**, **V. Pareek[2]**, **M. Tade[2]** [1] TU Delft, Delft/NL; [2] Curtin University of Technology, Perth/AU
16:50 – 17:10	**Threshold conditions for concrete reinforcing steel corrosion in Barakah nuclear power plants, UAE** M. Qasem[1], **Y. Yi[2]**, **P. Cho[2]** [1] Emirates Nuclear Energy Corporation (ENEC), Abu Dhabi/AE [2] Khalifa University of Science, Technology & Research, Abu Dhabi/AE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

Plenary Lecture and EFC Poster Prize	
09:00 – 09:45	**Room: Saal 1**
09:00 – 09:45	**Corrosion as a key factor for materials performance and life-time in advanced high temperature technologies** M. Schütze DECHEMA-Forschungsinstitut, Frankfurt am Main/DE
09:45 – 10:00	**BREAK FOR CHANGING LECTURE HALL**
Metallic Coatings	
10:00 – 11:20	**Room: Saal 11**
Chairs	**L. Fedrizzi**, University of Udine, Udine/IT **S. Garcia**, Delft University of Technology, Delft/NL
10:00 – 10:20	**Thermally sprayed coatings as protection systems for screw connections in offshore wind plants** A. Mertke[1], **R. Feser[1]**, **F. Prenger[2]**, **S. Hof[2]**, **S. Güres[3]** [1] Fachhochschule Südwestfalen, Iserlohn/DE; [2] Grillo-Werke AG, Duisburg/DE [3] August Friedberg GmbH, Gelsenkirchen/DE
10:20 – 10:40	**Effects of the sealing process on the corrosion behaviour of thermally sprayed and sealed coatings for corrosion protection of large building parts** **T. Maghet[1]**, M. Sallai[1], **T. Wilhelm[1]**, **J. Mährlein[1]**, **S. Friedrich[2]**, **R. Regenspurger[2]** [1] GSI mbH, SLV Duisburg branch, Duisburg/DE [2] Institut für Korrosionsschutz Dresden GmbH, Dresden/DE
10:40 – 11:00	**Investigation on the improved corrosion behaviour of TiMgN hard coatings on steel substrate** T. Müller[1], **A. Burkert[1]**, **A. Heyn[2]**, **M. Balzer[3]**, **M. Fenker[3]** [1] BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE [2] Otto-von-Guericke-Universität Magdeburg, Magdeburg/DE; [3] fem Research Institute for Precious Metals and Metal Chemistry, Schwäbisch Gmünd/DE
11:00 – 11:20	**HVAF thermal spray Fe-based coating: an environmentally acceptable alternative to cobalt-based coating** E. Sadeghimeresht[1], **N. Markocsan[1]**, **P. Nylen[1]** [1] University West, Trollhattan/SE
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

Metallic/Self-healing Coatings	
11:50 – 13:10	**Room: Saal 11**
Chairs	**L. Fedrizzi**, University of Udine, Udine/IT **S. Garcia**, Delft University of Technology, Delft/NL
11:50 – 12:10	**Protecting machines and constructions against corrosion influences from Earth, Water, Fire and Air environment with active thermal sprayed coatings** F. van Rodijnen, Oerlikon Metco Europe GmbH, Kelsterbach/DE
12:10 – 12:30	**Intrinsic healing corrosion protective sol-gel coatings containing reversible tetrasulphide groups** S. Garcia[1], M. Abdolahzadeh[1], S. van der Zwaag[1] [1] Delft University of Technology, Delft/NL
12:30 – 12:50	**PH-responsive cerium based nanocomposites for anticorrosion purposes** C. Oueiny[1], S. Berlioz[1], F. Perrin[1] [1] Université de Toulon, La Garde Cedex/FR
12:50 – 13:10	**ZrO2 thin films combined with organic inhibitors for corrosion protection of aluminium alloys** A. De Nicolò[1], L. Paussa[1], F. Andreatta[1], A. Cotugno[2], A. Fisogni[2], L. Fedrizzi[1] [1] University of Udine, Udine/IT; [2] Turco Italiana S.p.A., Montirone/IT
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Self-healing Coatings	
14:30 – 15:50	**Room: Saal 11**
Chairs	**H. Terryn**, Vrije Universiteit Brussel (VUB), Brussel/BE **M. Zheludkevich**, Helmholtz-Zentrum Geesthacht (HZG), Geesthacht/DE
14:30 – 14:50	**Innovative sealing for coatings on magnesium alloys produced by plasma electrolytic oxidation (PEO)** M. Mohedano[1], M. Serdechnova[1], C. Blawert[1], M. Zheludkevich[1] [1] Helmholtz-Zentrum Geesthacht (HZG), Geesthacht/DE
14:50 – 15:10	**Composite protective coatings enriched with combination of inhibitors for magnesium alloys** S. Lamaka[1], D. Snihirova[1], D. Ivanov[2], M. Starykevich[2], M. Zheludkevich[3], T. Hack[4] [1] University of Lisbon, Lisbon/PT; [2] University of Aveiro, Aveiro/PT; [3] Helmholtz-Zentrum Geesthacht (HZG), Geesthacht/DE; [4] Airbus Group Innovations, München/DE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:10 – 15:30	**Preparation and characterization of a coating containing two autonomous self-healing mechanisms** A. Kakaroglou[1], M. Shiba[2], H. Verbruggen[1], S. Pletincx[1], H. Terryn[1], I. De Graeve[1] [1] Vrije Universiteit Brussel (VUB), Brussel/BE [2] National College of Technology, Asahikawa/JP
15:30 – 15:50	**Preparation of nanocontainers for inhibition of aluminium alloy corrosion and dispersion in an organic coating** E. Lachéry[1], J. Escobar[2], S. Peeterbroeck[1], M. Poelman[1], M. Poorteman[2], M. Wanner[3], M. Olivier[2] [1] Materia Nova, Mons/BE; [2] University of Mons, Mons/BE; [3] Fraunhofer IPA, Stuttgart/DE
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Self-healing Coatings	
16:10 – 17:10	**Room: Saal 11**
Chairs	**M. Zheludkevich**, Helmholtz-Zentrum Geesthacht (HZG), Geesthacht/DE **H. Terryn**, Vrije Universiteit Brussel (VUB), Brussel/BE
16:10 – 16:30	**Self-healing microcomposites for corrosion protection of hot dip galvanized steel** C. Charitidis[1], I. Kartsonakis[1], E. Karaxi[1], E. Koumoulos[1], I. Kanellopoulou[1], A. Karantonis[1] [1] National Technical University of Athens, Zographos/GR
16:30 – 16:50	**Role of environment on release kinetics of intercalated MoO42- inhibitor from Zn2Al/- layered double hydroxides** V. Shkirskiy[1], P. Volovitch[1], K. Ogle[1], F. Leroux[2], P. Vialat[2], A. Vvedenskii[3], P. Keil[4], H. Hintze-Brüning[4] [1] Chimie ParisTech, Paris/FR; [2] Université Blaise Pascal, Aubière/FR [3] Voronezh State University, Voronezh/RU; [4] BASF Coatings GmbH, Münster/DE
16:50 – 17:10	**Raman spectroscopy as a complementary technique (to electrochemical techniques) for studying multiple-action self-healing coatings** H. Verbruggen[1], A. Lutz[1], M. Meeusen[2], K. Baert[1], I. De Graeve[1], H. Terryn[1] [1] Vrije Universiteit Brussel (VUB), Brussel/BE; [2] TU Delft, Delft/NL

Mechanisms, Methods & Modelling	
10:00 – 11:00	**Room: Galerie B**
Chair	**H. Terryn**, Vrije Universiteit Brussel (VUB), Brussel/BE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

10:00 – 10:20	**In-situ analytical proof of passivity in valve metal libraries** A. Hassel[1], J. Kollender[1], M. Hafner[1], A. Mardare[1], C. Mardare[1] [1] Johannes Kepler Universität Linz, Linz/AT
10:20 – 10:40	**Fabrication, investigation and corrosion behaviour of electrodeposited material libraries** C. Grill[1], J. Kollender[1], A. Hassel[1] [1] Johannes Kepler Universität Linz, Linz/AT
10:40 – 11:00	**Bimetallic corrosion under atmospheric conditions, effect of different types of specimens for field exposure tests** J. Tidblad[1], L. Sjögren[1], H. Pahverk[1] [1] Swerea KIMAB AB, Kista/SE
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
11:50 – 13:10	**Room: Galerie B**
Chair	**S. Lamaka**, University of Lisbon, Lisbon/PT
11:50 – 12:10	**Oxygen reduction on platinum covered by thin NaCl electrolyte layers** O. Dolgikh[1], A. Bastos[2], A. Oliveira[2], J. Deconinck[1] [1] Vrije Universiteit Brussel (VUB), Brussel/BE; [2] Universidade de Aveiro, Aveiro/PT
12:10 – 12:30	**Numerical prediction of flow accelerated corrosion with surface topology change** K. Suga, Tokyo University of Science, Chino/JP
12:30 – 12:50	**Simulating the influence of corrosion products on the corrosion rate: Approach and applications** H. Simillion[1], O. Dolgikh[1], H. Terryn[1], J. Deconinck[1] [1] Vrije Universiteit Brussel (VUB), Brussel/BE
12:50 – 13:10	**Numerical prediction of liquid film formation during accelerated corrosion tests** N. Van den Steen[1], J. Deconinck[1] [1] Vrije Universiteit Brussel (VUB), Brussel/BE
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
14:30 – 15:50	**Room: Galerie B**

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

Chair	**A. Atrens**, The University of Queensland, St Lucia/AU
14:30 – 14:50	**Influence of proteins on corrosion of biodegradable Mg and Fe** S. Virtanen Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen/DE
14:50 – 15:10	**Localized corrosion of the Mg alloys protected by polymer- and inhibitor-containing composite coating: mechanism and kinetics** A. Gnedenkov[1], S. Sinebryukhov[1], D. Mashtalyar[1], S. Gnedenkov[1] [1] Russian Academy of Sciences, Vladivostok/RU
15:10 – 15:30	**SO2-induced corrosion of Mg alloy AZ91D** M. Esmaily[1], D. Blücher[2], J. Svensson[1], L. Johansson[1] [1] Chalmers University of Technology, Gothenburg/SE [2] SINTEF Materials and Chemistry, Trondheim/NO
15:30 – 15:50	**Effect of Friction Stir Processing (FSP) on the corrosion properties of magnesium** F. Deflorian[1], M. Fedel[1], D. Ahmadkhaniha[2], M. Sohi[2] [1] University of Trento, Trento/IT; [2] University of Tehran, Tehran/IR
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
16:10 – 17:30	**Room: Galerie B**
Chair	**S. Virtanen**, Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen/DE
16:10 – 16:30	**Recent developments regarding the Mg corrosion reaction sequence** A. Atrens, The University of Queensland, St Lucia/AU
16:30 – 16:50	**Investigation of hydrogen evolution behaviour on corroding magnesium electrodes by electrochemical impedance spectroscopy, real-time hydrogen measurement and optical imaging** M. Curioni[1], F. Scenini[1], T. Monetta[2], F. Bellucci[2] [1] The University of Manchester, Manchester/GB [2] Università degli Studi di Napoli Federico II, Napoli/IT
16:50 – 17:10	**The skin effect of Nd-Y-containing magnesium alloys** A. Lugovskoy[1], O. Gaon[1], N. Siani[1] [1] Ariel University, Ariel/IL

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

Nuclear Corrosion	
10:00 – 11:20	**Room: Saal 10**
Chair	**D. Féron**, CEA Saclay, Gif-sur-Yvette/FR
10:00 – 10:20	**Influence of corrosion products on the behavior of stainless steel in nitric acid and in presence of oxidizing ions** F. Alexis[1], N. Larabi-Gruet[1], S. Jakab-Costenoble[3], P. Moisy[3] [1] CEA Saclay, Gif-sur-Yvette/FR; [3] CEA Marcoule, Bagnols-sur-Cèze/FR
10:20 – 10:40	**Estimation method for corrosion rate of carbon steel in water with gamma-ray irradiated condition** M. Yamamoto[1], T. Satoh[1], A. Komatsu[1], J. Nakano[1], F. Ueno[1] [1] Japan Atomic Energy Agency, Tokai-Mura Ibaraki/JP
10:40 – 11:00	**Importance of experimental arrangement for corrosion testing in bentonite environment** M. Kouril[1], M. Cervenak[1], D. Novikova[1]vN. Papezova[1], P. Novak[1] [1] University of Chemistry and Technology, Praha/CZ
11:00 – 11:20	**Evaluation of the hydrogen induced crack behaviour of titanium for overpack applications under buried conditions** G. Nakayama[1], T. Koketsu[1], [1] IHI Corporation, Yokohama/JP
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**

Environment Sensitive Fracture	
11:50 – 13:10	**Room: Saal 10**
Chair	**K. Wolski**, Ecole Nationale Supérieure des Mines, Saint Etienne/FR
11:50 – 12:30 **Keynote**	**Research on the influence of hydrogen on mechanical properties of medium strength steels** A. Atrens[1], Q. Liu[1], [1] The University of Queensland, St Lucia/AU
12:30 – 12:50	**Evaluation of susceptibility to hydrogen induced cracking of ultra-high strength steel sheets for automobiles** H. Kim[1], W. Yang[1], H. Jeong[1], S. Lee[1], Y. Jeong[1], M. Moon[1], [1] Hyundai-Steel, Chungnam/KR
12:50 – 13:10	**Detection of stress corrosion cracking in sensitized austenitic stainless steel at near-ambient conditions in thiosulfate solutions** B. Zajec[1], M. Bajt Leban[1]vT. Kosec[1], A. Legat[1] [1] Slovenian National Building and Civil Engineering Institute [ZAG], Ljubljana/SI

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Environment Sensitive Fracture	
14:30 – 15:50	**Room: Saal 10**
Chair	**A. Visser**, Montanuniversität Leoben, Leoben/AT
14:30 – 14:50	**Hydrogen redistribution during continuous cooling of a low alloy steel** J. Sezgin[1], C. Bosch[1], A. Mascaro[2], G. Perrin[3], K. Wolski[1] [1] Ecole Nationale Supérieure des Mines, Saint-Etienne/FR [2] AREVA Creusot Forge, Le Creusot/FR; [3] AREVA DRDI, Paris/FR
14:50 – 15:10	**Behavior of short stress corrosion cracks colonies in nuclear environments** J. Bolivar[1], M. Frégonèse[1], J. Rethore[1], M. Baietto[1], C. Duret-Thual[2], O. Calonne[3], P. Combrade[4], F. Bumbieler[5], A. Proust[6], P. Pineau[1] [1] Université de Lyon, Villeurbanne/FR; [2] Institut de la Corrosion, Fraisses/FR [3] AREVA NP, Le Creusot/FR; [4] ACXCOR, Le Bessat/FR; [5] ANDRA, Bure/FR [6] Mistras Group SA, Sucy en Brie/FR
15:10 – 15:30	**Crystallography of stress corrosion cracking of austenitic stainless steel by scanning electron microscope and electron backscatter diffraction** H. Mubarak[1], L. Barrallier[1], S. Jégou[1], F. Guittonneau[1], K. Ogle[2], P. Volovitch[2] [1] Arts et Métiers ParisTech, Aix-en-Provence/FR; [2] Chimie ParisTech, Paris/FR
15:30 – 15:50	**Effect of high temperature nitriding on corrosion properties of martensitic stainless steels** M. Borchert[1], G. Mori[1], M. Bischof[2], A. Tomandl[2] [1] Montanuniversität Leoben, Leoben/AT; [2] Hilti Corporation, Schaan/LI
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Environment Sensitive Fracture	
16:10 – 17:10	**Room: Saal 10**
Chair	**K. Wolski**, Ecole Nationale Supérieure des Mines, Saint Etienne/FR
16:10 – 16:30	**Study of embrittlement mechanisms of the Virgo™38, a 16Cr-4Ni low-carbon supermartensitic stainless steel** C. Gayton[1], C. Bosch[1], A. Rozinoer[2], F. Millet[2], K. Wolski[1], J. Stolarz[1] [1] Ecole Nationale Supérieure des Mines de Saint-Etienne, Saint-Étienne/FR [2] General Electric Oil & Gas Thermodyn SAS, Le Creusot/FR

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

16:30 – 16:50	**Corrosion fatigue behaviour of a new austenitic stainless steel under various testing conditions** A. Visser[1], G. Mori[1], R. Fluch[2], M. Kapp[2], H. Leitner[2], B. Holper[3], M. Panzenböck[1], R. Pippan[4] [1] Montanuniversität Leoben, Leoben/AT [2] BÖHLER Edelstahl GmbH & Co KG, Kapfenberg/AT [3] Schoeller Bleckmann Oilfield Technology GmbH, Ternitz/AT [4] Erich Schmid Institute of Materials Science, Leoben/AT
16:50 – 17:10	**Influence of metallurgical state on the susceptibility to stress corrosion cracking of α,β' brass** C. Berne[1], E. Andrieu[2], J. Reby[3], J. Sobrino[4], C. Blanc[2] [1] ENSIACET - Ecole Nationale Supérieure des Ingénieurs en Arts Chimiques Et Technologiques, Toulouse/FR [2] Université de Toulouse, Toulouse/FR [3] CETIM, Nantes/FR; [4] CETIM, Senlis/FR

Corrosion in Oil and Gas	
10:00 – 11:20	**Room: Saal 1**
Chair	**M. Wilms**, Shell Global Solutions International, Amsterdam/NL
10:00 – 10:20	**Corrosion behaviour of martensite-based stainless steel OCTG in sour environment** T. Kawano[1], K. Eguchi[1], K. Fujimura[1], Y. Ishiguro[1], H. Ota[1], H. Kajiyama[1], M. Kimura[1] [1] JFE Steel Corporation, Kawasaki/JP
10:20 – 10:40	**Sulfide stress corrosion study of a super martensitic stainless steel: role of H2S on metallic sulfur formation and hydrogen embrittlement** M. Monnot[1], M. Mantel[1], G. Berthomé[2], V. Roche[3], R. Nogueira[3], E. Chauveau[1] [1] Ugitech SA, Ugine/FR; [2] CNRS, Grenoble/FR [3] Université Grenoble Alpes, Grenoble/FR
10:40 – 11:00	**Utilizing composite pipe wrap technologies to restore corroded pipework to operating compliance** C. Bateman[1], K. Flanagan[1] [1] Belzona Polymerics Ltd, Harrogate/GB
11:00 – 11:20	**Centrifugally cast 25% Cr superduplex solid corrosion resistant alloy (CRA) pipe for upstream oil and gas** S. Venkataraman[1], D. Jakobi[1] [1] Schmidt + Clemens GmbH + Co. KG, Lindlar/DE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**

Corrosion in Oil and Gas	
11:50 – 13:10	**Room: Saal 1**
Chair	**M. Wilms**, Shell Global Solutions International, Amsterdam/NL
11:50 – 12:10	**Influence of different heat treatments on sensitization of alloy 625** G. Mori[1], R. Lackner[1], F. Winter[2], H. Rinner[2], R. Egger[2] [1] Montanuniversität Leoben, Leoben/AT [2] voestalpine Grobblech GmbH, Linz/AT
12:10 – 12:30	**Latest developments in clad-plate production for enhanced toughness and corrosion-resistance properties with cladding alloy 625** H. Lengauer[1], C. Schindler[1], H. Mitter[1], C. Ganglbauer[1] [1] voestalpine Grobblech GmbH, Linz/AT
12:30 – 12:50	**Pre-commissioning of submarine pipelines – water quality and corrosion threats** B. Graver[1], A. Pedersen[1], E. Skavås[1], E. Gulbrandsen[1] [1] DNV GL, Høvik/NO
12:50 – 13:10	**Exploring the suitability of cold bonding solutions for safety critical assets and equipment** C. Bateman[1], K. Flanagan[1] [1] Belzona Polymerics Ltd, Harrogate/GB
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**

Corrosion in Oil and Gas	
14:30 – 15:30	**Room: Saal 1**
Chairs	**M. Wilms**, Shell Global Solutions International, Amsterdam/NL **S. Paterson**, Shell Projects & Technology, Amsterdam/NL
14:30 – 14:50	**Influence of structure on the corrosion properties of high manganese high nitrogen stainless steels** S. Kolesov[1], A. Shakhmatov[1], R. Badrak[2], A. Kharkov[3] [1] Weatherford International, St. Petersburg/RU [2] Weatherford International, Houston/US [3] Saint-Petersburg State University, St. Petersburg/RU

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:50 – 15:10	**Is HIC test mandatory for sour gas service pipelines weldments?** M. Najmi[1], D. Masouri[1], N. Azimzadeh[2] [1] POGC - Pars Oil and Gas Co., Tehran/IR [2] Amirkabir University of Technology, Tehran/IR
15:10 – 15:30	**Corrosion behaviour of 316L stainless steel in Qatar's atmosphere** M. Sliem[1], A. Abdullah[1], A. Mohamed[1], D. Roulston[2], R. Johnsen[3], S. Al-Remaihi[2] [1] Qatar University, Doha/QA [2] Qatar Petroleum, Doha/QA [3] Norwegian University of Science and Technology, NTNU, Trondheim/NO
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Corrosion in Oil and Gas	
16:10 – 17:30	**Room: Saal 1**
Chairs	**S. Paterson**, Shell Projects & Technology, Amsterdam/NL **M. Wilms**, Shell Global Solutions International, Amsterdam/NL
16:10 – 16:30	**Estimating internal corrosion evolution of oil pipelines by deterministic and reliability analysis** H. Castaneda-Lopez[1], Q. Huang[2] [1] Texas A&M University, College Station/US [2] The University of Akron, Akron/US
16:30 – 16:50	**Close-to-reality sliding-corrosion test-rig for oilfield application** A. Trausmuth[1], M. Rodriguez Ripoll[1], G. Zehethofer[2], T. Vogl[3], E. Badisch[1] [1] AC2T research GmbH, Wiener Neustadt/AT [2] OMV Exploration & Production GmbH, Wien/AT [3] voestalpine Tubulars GmbH & Co. KG, Kindberg-Aumühl/AT
16:50 – 17:10	**Protection effectiveness of vapor corrosion inhibitor for corrosion under insulation** B. Bavarian[1], B. Samimi[1], Y. Ikder[1], L. Reiner[1], B. Miksic[2] [1] California State University, Northridge/US [2] Cortec Corporation, St. Paul/US

Automotive Corrosion	
10:00 – 11:20	**Room: Saal 12**
Chair	**F. Hannour**, Qatar National Research Fund, Doha/QA

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

10:00 – 10:20	**Influence of corrosion on the fatigue behaviour of different stainless steels for exhaust systems** D. Knoll[1], D. Neubauer[2], M. Yasir[1], H. Wieser[1], B. Heine[2] [1] Faurecia Emissions Control Technologies, Augsburg/DE; [2] HTW Aalen, Aalen/DE
10:20 – 10:40	**How to quantify pitting corrosion in exhaust systems – advantages and limitations of different statistical approaches** H. Wieser[1], M. Yasir[1], D. Knoll[1], S. Burger[1], M. Hogl[1] [1] Faurecia Emissions Control Technologies, Augsburg/DE
10:40 – 11:00	**Study of the corrosion behaviour of zirconia based thin film pretreatments vs phosphating during short and long term cyclic corrosion exposure** K. Tarka[1], A. Jaako[1], D. Persson[2], L. Johansson[3], H. Mattsson[1] [1] Volvo Car Corporation, Gothenburg/SE; [2] Swerea KIMAB AB, Kista/SE [3] Chalmers University of Technology, Gothenburg/SE
11:00 – 11:20	**Simultaneous and alternated fatigue-corrosion performance of joined materials for automotive applications** F. Vucko[1], D. Thierry[1], B. Weber[2], G. Luckeneder[3], T. Bschorr[4], K. Rother[5], C. Sciaboni[6], J. Sczepanski[7] [1] Institut de la Corrosion, Brest/FR; [2] ArcelorMittal Maizières Research SA, Maizières-lès-Metz/FR; [3] voestalpine Stahl GmbH, Linz/AT [4] Gesellschaft für Schweisstechnik International mbH, München/DE [5] University of Applied Science, München/DE; [6] Centro Sviluppo Materiali SpA, Roma/IT [7] Bayerische Motoren Werke AG, München/DE
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Automotive Corrosion	
11:50 – 13:10	**Room: Saal 12**
Chair	**F. Hannour**, Qatar National Research Fund, Doha/QA
11:50 – 12:10	**Atmospheric corrosion analysis of the dissimilar friction stir welded joint of AM50 Mg alloy to 6005-T6 Al alloy** M. Esmaily[1], D. Blücher[2], J. Svensson[1], L. Johansson[1] [1] Chalmers University of Technology, Gothenburg/SE [2] SINTEF Materials and Chemistry, Trondheim/NO
12:10 – 12:30	**Improvement of the Corrosion Behaviour of AZ91 via Friction Stir Processing** W. Huemer[1], C. Hahn[2], A. Hütter[1], R. Vallant[1], C. Sommitsch[1] [1] TU Graz, Graz/AT; [2] TU Darmstadt, Darmstadt/DE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

12:30 – 12:50	**A capable, simple replacement to salt spray testing - Part 1 - Exposure results and a draft standard proposal** B. Rendahl[1], M. Ström[2] [1] Swerea KIMAB, Kista/SE; [2] Volvo Car Corporation, Göteborg/SE
12:50 – 13:10	**Assesing hydrogen susceptibility of press hardened and high strength steels using various testing methods** A. Muhr[1], T. Kurz[1], S. Kolnberger[1], F. Zwettler[1], G. Luckeneder[1], J. Faderl[1], K. Stellnberger[1], G. Mori[2] [1] voestalpine Stahl GmbH, Linz/AT [2] Montanuniversität Leoben, Leoben/AT
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Automotive Corrosion	
14:30 – 15:50	**Room: Saal 12**
Chair	**F. Hannour**, Qatar National Research Fund, Doha/QA
14:30 – 14:50	**Replacement systems for tri-cation-phosphating - a principle application test with galvanized press-hardened and cold rolled car-body materials** G. Luckeneder[1], M. Voith[1], K. Stellnberger[1], J. Faderl[1], T. Kurz[1] [1] voestalpine Stahl GmbH, Linz/AT
14:50 – 15:10	**A capable, simple cyclic replacement to salt spray testing; Part 2 - Corrosion mechanistic aspects** M. Ström[1], B. Rendahl[2] [1] Volvo Car Corporation, Göteborg/SE; [2] Swerea KIMAB, Kista/SE
15:10 – 15:30	**Corrosion test improvement by climatic modeling** R. Mayrhofer[1], T. Bäck[2] [1] Daimler AG, Sindelfingen/DE; [2] Divis intelligent solutions GmbH, Dortmund/DE
15:30 – 15:50	**Corrosion test instruments of new cyclic corrosion test methds** S. Suga Suga Test Instruments Co., Ltd., Tokyo/JP
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Automotive Corrosion	
16:10 – 17:30	**Room: Saal 12**
Chair	**F. Hannour**, Qatar National Research Fund, Doha/QA

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

16:10 – 16:30	**In-depth parameter study on the use of weight loss samples for improved monitoring of automotive cyclic corrosion tests** F. Beier[1], H. Rudolph[2], R. Mayrhofer[2] [1] SZMF - Salzgitter Mannesmann Forschung GmbH, Salzgitter/DE [2] Daimler AG, Sindelfingen/DE
16:30 – 16:50	**Metrological analysis of corrosion-climatic stresses in an entire vehicle long-term study** C. Jahn[1], P. Prokop[1], [1] TU Dresden, Dresden/DE
16:50 – 17:10	**Corrosion of aluminium steel joints produced by cold bulk metal forming process** A. Altin[1], S. Wohletz[2], W. Krieger[1], P. Groche[2], A. Erbe[1] [1] Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/DE [2] TU Darmstadt, Darmstadt/DE
17:10 – 17:30	**The new era in corrosion testing** J. Quill, Q-Lab Corp., Westlake/US

Corrosion in Refinary Industry	
10:00 – 11:20	**Room: Saal 2**
Chair	**F. Ropital**, IFP Energies nouvelles, Solaize/FR
10:00 – 10:20	**Investigation of initial stages of metal dusting corrosion phenomenon relevant to natural gas conversion technologies** D. Gunawardana[1], J. Walmsely[2], H. Venvik[1] [1] Norwegian University of Science and Technology (NTNU), Trondheim/NO [2] SINTEF Materials and Chemistry, Trondheim/NO
10:20 – 10:40	**Innovative corrosion testing using a fully automatic fixed bed pilot plant unit** M. Suleiman[1], N. Chandak[1], A. Al Maqtari[1] [1] Abu Dhabi Oil Refining Company (Takreer), Abu Dhabi/AE
10:40 – 11:00	**Industrial, electrochemical, on-line corrosion monitoring – applications, problems and challenges** S. Kus[1], S. Srinivasan[2], M. Qreis[3] [1] Honeywell Process Solutions, Bracknell/GB; [2] Honeywell Process Solutions, Houston/US; [3] Abu Dhabi Polymers Company Ltd. (Borouge), Abu Dhabi/AE
11:00 – 11:20	**Application of modified electrochemical noise technique in Kuwaiti open cooling water system** H. Al-Mazeedi[1], M. Miyazawa[2], Y. Ishikawa[2] [1] Kuwait Institute for Scientific Research, Kuwait City/KW [2] JSCE - Japan Society of Corrosion Engineering, Tokyo/JP

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

11:20 – 11:50	COFFEE BREAK / Room: Exhibition Area
Corrosion in Refinary Industry	
11:50 – 12:50	**Room: Saal 2**
Chair	**F. Ropital**, IFP Energies nouvelles, Solaize/FR
11:50 – 12:10	**Three Layered CUI Protection System: Field Performance** M. Funahashi, MUI International, West Chester/US
12:10 – 12:30	**Failure investigation of alloy 20 in concentrated sulphuric acid** S. Almaaesab[1], S. Al-Subai[1] [1] SABIC - Saudi Basic Industries Corporation, Jubail Industrial City/SA
12:30 – 12:50	**Corrosion in a thermal cracking process** A. Schmid[1], G. Mori[1], [1] Montanuniversität Leoben, Leoben/AT

Archaeological and Historical Artefacts	
14:30 – 15:50	**Room: Saal 2**
Chair	**D. Neff**, CEA Saclay, Gif-sur-Yvette/FR
14:30 – 14:50	**Phases' transformations during subcritical treatment of iron archaeological artefacts** M. Bayle[1], P. de Viviés[2], J. Memet[2], P. Dillmann[1], D. Neff[1] [1] CEA Saclay, Gif-sur-Yvette/FR; [2] A-CORROS Expertises, Arles/FR
14:50 – 15:10	**Impact of akaganeite on corrosion rate of iron as a function of relative humidity: synthetic versus naturally formed βFeOOH** N. Emmerson[1], D. Watkinson[1] [1] Cardiff University, Cardiff/GB
15:10 – 15:30	**Atmospheric corrosion resistance of stainless steel: results of a field exposure programme in Middle-East** S. Hägg Mameng[1], R. Pettersson[2], C. Leygraf[3], L. Wegrelius[1] [1] Outokumpu Stainless steel AB, Avesta/SE [2] The Swedish Steel Producers' Association Stockholm, Stockholm/SE [3] Royal institute of Technology, Stockholm/SE;
15:30 – 15:50	**In situ atmospheric corrosion assessment on weathering steel sculptures** S. Grassini[1], E. Angelini[1], M. Parvis[1], F. Zucchi[2] [1] Politecnico di Torino, Torino/IT; [2] Università di Ferrara, Ferrara/IT

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:50 – 16:10	COFFEE BREAK / Room: Exhibition Area
Archaeological and Historical Artefacts	
16:10 – 17:10	**Room: Saal 2**
Chair	**S. Grassini**, Politecnico di Torino, Torino/IT
16:10 – 16:30	**New coatings for the protection of ornamental cast ironwork exposed in uncontrolled environment** Z. Abdel Hamid[1], M. Rifai[2], S. Saleh[3], M. Abdelbar[3] [1] Central Metallurgical Research and Development Institute (CMRDI), Helwan, Cairo/EG [2] Cairo University, Cairo/EG; [3] Fayoum University, Cairo/EG
16:30 – 16:50	**Quantitative testing of corrosion rates of heritage steel coated with Paraloid B72™, Cosmolloid H80™ and Siliglide 10™** D. Watkinson[1], N. Emmerson[1], A. Lawson[1] [1] Cardiff University, Cardiff/GB
16:50 – 17:10	**Study of iron sulphides origin in archaeological artefacts by determination of sulphur isotopic ratio** S. Grousset[1], F. Mercier-Bion[1], D. Neff[1], D. Crusset[2], A. Dauzeres[3], P. Dillmann[1], J. Gallien[1] [1] CEA Saclay, Gif-sur-Yvette/FR; [2] ANDRA, Chatenay-Malabry/FR [3] IRSN - Institut Radioprotection Sûreté Nucléaire, Fontenay-aux-Roses/FR

Marine Corrosion	
10:00 – 11:00	**Room: Galerie C**
Chair	**U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE
10:00 – 10:20	**Corrosion of flange of marine hose** X. Zhang[1], G. Ferrari[1], [1] Endures BV, Den Helder/NL
10:20 – 10:40	**Electrochemical monitoring of damaged thermally sprayed aluminium coatings on steel in a simulated marine immersion environment at different temperatures** S. Paul, TWI, Cambridge/GB
10:40 – 11:00	**Comparative electrochemical study of arc- and flame sprayed aluminum coatings in marine environment** L. Abdoli[1], H. Li[1] [1] Chinese Academy of Sciences, Ningbo/CN

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

Cathodic Protection in Marine Environment	
11:50 – 13:10	**Room: Galerie C**
Chairs	**U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE **J. Crouzillac**, BAC Corrosion Control, Voisins-le-Bretonneux/FR
11:50 – 12:10	**Offshore windfarm monopile cathodic protection: deficiencies in standards and specifications** B. Wyatt Corrosion Control Associates Ltd., Stafford/GB
12:10 – 12:30	**CP design and retrofit of offshore windmills** H. Osvoll[1], G. Lauvstad[1], T. Mathiesen[2] [1] FORCE Technology Norway AS, Trondheim/NO; [2] Force Technology, Brøndby/DK
12:30 – 12:50	**Time-dependent CP simulation of wind turbine foundations** C. Baeté[1], B. Van den Bossche[1] [1] Elsyca n.v., Wijgmaal/BE
12:50 – 13:10	**Corrosion protection inside monopile wind turbine foundations - Commissioning and performance** B. Jensen[1], [1] DONG Energy, Gentofte/DK
13:10 – 14:30	**LUNCH BREAK / Room: Exhibition Area**
Cathodic Protection in Marine Environment	
14:30 – 15:50	**Room: Galerie C**
Chairs	**U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE **J. Crouzillac**, BAC Corrosion Control, Voisins-le-Bretonneux/FR
14:30 – 14:50	**CP retrofit and life extension based on CP inspection** H. Osvoll FORCE Technology Norway AS, Trondheim/NO
14:50 – 15:10	**Internal cathodic protection of offshore wind turbine monopile foundations** B. Wyatt[1], I. Tavares[2], P. Ernst[3], G. John[3], R. Jacob[4] [1] Corrosion Control Associates Ltd., Stafford/GB; [2] Centrica Energy Ltd, Windsor/GB [3] Intertek, Manchester/GB; [4] The CP Consultancy Ltd., Little Wenlock/GB
15:10 – 15:30	**Coatings in combination with cathodic protection – offshore field experiences** O. Knudsen[1], S. Olsen[2] [1] SINTEF, Trondheim/NO; [2] Statoil ASA, Porsgrunn/NO

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

15:30 – 15:50	**Influence of oxide layer on the early stage of cathodic protection** A. Zanibellato[1], M. Jeannin[1], R. Sabot[1], P. Refait[1], X. Nóvoa[2] [1] Université de la Rochelle, La Rochelle/FR [2] Universidade de Vigo, Vigo/ES
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Cathodic Protection in Marine Environment	
16:10 – 17:30	**Room: Galerie C**
Chairs	**U. Kivisäkk**, AB Sandvik Materials Technology, Sandviken/SE **J. Crouzillac**, BAC Corrosion Control, Voisins-le-Bretonneux/FR
16:10 – 16:30	**Volume synthesis of calcareous deposit on carbon steel in natural seawater: effect of applied potential and temperature** D. Nguyen Dang[1], B. Kabbadj[1], S. Gascoin[1], B. Riffault[1], R. Sabot[2], M. Jeannin[2], D. Chateigner[1], O. Gil[1] [1] Université de Caen Basse-Normandie, Caen/FR [2] Université de la Rochelle, La Rochelle/FR
16:30 – 16:50	**Offshore pipelines: do we need -900mV** C. Googan antiCORR, Much Wenlock/GB
16:50 – 17:10	**Cathodic protection project (EPC) cost analysis with new generation designs** M. Attarchi[1], N. Merhjooy[1], A. Sohrabi Farid[1], S. Mirghafourian[1], M. Nasri Karladani[1] [1] Borna Electronics Co., Tehran/IR

Drinking Water	
10:00 – 11:20	**Room: Galerie A**
Chair	**W. Erning**, BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

10:00 – 10:20	**Extreme value statistical modelling of pitting in cast iron pipes** Z. Soltani Asadi[1], R. Melchers[1] [1] University of Newcastle, Newcastle/AU
10:20 – 10:40	**Quantifying the effect of copper corrosion scales on passivation** G. Pizarro[1], D. Fischer[1], C. Galarce[1], M. Walczak[1], I. Vargas[1] [1] Pontificia Universidad Católica, Santiago/CL
10:40 – 11:00	**Pitting corrosion of copper - current damages in drinking water systems in Germany** A. Becker[1], U. Ruhrberg[1], T. Jentzsch[1] [1] IWW Water Centre, Mülheim an der Ruhr/DE
11:00 – 11:20	**Investigation of corrosion susceptibility of two types of brass in drinking water** M. Bajt Leban[1], T. Kosec[1], P. Močnik[1], A. Legat[1] [1] Slovenian National Building and Civil Engineering Institute [ZAG], Ljubljana/SI
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Drinking Water	
11:50 – 12:30	**Room: Galerie A**
Chair	**W. Erning**, BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE
11:50 – 12:10	**Incidence of microbial corrosion of metallic tubes in sanitary facilities** F. Delaunois[1], V. Vitry[1], A. Hantson[1], F. Tosar[1] [1] Université de Mons (UMONS), Mons/BE
12:10 – 12:30	**Corrosion behaviour of stainless steel in contact with ECA-generated disinfectant fluids** W. Erning[1], M. Dimper[1], A. Ahrens[2], S. Reimann[2] [1] BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE [2] VLB - Versuch- u. Lehranstalt für Brauerei, Berlin/DE

Corrosion of Polymer Materials	
14:30 – 15:50	**Room: Galerie A**
Chair	**J. Heinemann**, Technische Universität Darmstadt, Darmstadt/DE

WEDNESDAY, 09.09.2015 SCIENTIFIC LECTURES PROGRAMME

14:30 – 14:50	**Compatibility of polyethylene grades with biofuels and biodiesel-heating oil blends** M. Weltschev[1], A. Kohl[1], M. Haufe[1] [1] BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE
14:50 – 15:10	**Mechanical and Thermo-Mechanical Behaviour of Aliphatic Polyketones in Wet Environments** P. Guttmann[1], G. Pilz[1] [1] Montanuniversität Leoben, Leoben/AT
15:10 – 15:30	**Degradation of carbon fiber reinforced composites induced by galvanic coupling to metallic materials** D. Persson[1], J. Andersson[1], D. Jönsson[2], M. Tornberg[1], E. Lindh-Ulmgren[1] [1] Swerea KIMAB AB, Kista/SE; [2] Scania CV AB, Södertälje/SE
15:30 – 15:50	**Change in properties of sealing materials in biofuels, biodiesel-heating oil blends, diesel and premium grade fuel at different temperatures** M. Weltschev[1], J. Werner[1], F. Jochems[1], F. Heming[2] [1] BAM - Bundesanstalt für Materialforschung und -prüfung, Berlin/DE [2] Federal Institute for Materails Research an Testing, Berlin/DE
15:50 – 16:10	**COFFEE BREAK / Room: Exhibition Area**
Corrosion of Polymer Materials	
16:10 – 17:10	**Room: Galerie A**
Chair	**J. Heinemann**, Technische Universität Darmstadt, Darmstadt/DE
16:10 – 16:30	**High performance plastic coating with ultra adhesion by using Polysiloxane and Chlorinated polyolefin** A. Assarian Universtiy of Zagreb, Zagreb/HR
16:30 – 16:50	**Investigation of waterborne polyurethanes dispersions synthesized with biobased prepolymer polyols and aliphatic diisocyanate as binders in paints** A. Ślusarczyk[1], M. Zubielewicz[1], A. Królikowska[2] [1] Institute for Engineering of Polymer Materials and Dyes, Gliwice/PL [2] Road and Bridge Research Institute, Warsaw/PL
16:50 – 17:10	**Controlling the degradation rate of gelatin- modified AZ91 magnesium alloy in means of dip/spin-coating procedures** H. Tiyyagura[1], S. Gorgieva[2], K. Mantravadi[1], V. Boyapati[1], V. Kokol[2] [1] National Institute of Technology Warangal, Warangal/IN [2] University of Maribor, Maribor/SI

THURSDAY, 10.09.2015 SCIENTIFIC LECTURES PROGRAMME

Plenary Lecture	
09:00 – 09:45	**Room: Saal 1**
	Understanding Mechanisms and Kinetics of Environmentally Assisted Cracking S. Lynch, DSTO - Defence Science & Technology Organisation, Port Melbourne/AU
09:45 – 10:00	**BREAK FOR CHANGING LECTURE HALL**

Inorganic Coatings	
10:00 – 11:20	**Room: Saal 11**
Chairs	**F. Montemor**, Universidade Técnica de Lisboa, Lisboa/PT **J. Sykes**, University of Oxford, Oxford/UK
10:00 – 10:20	**Weldable anti-corrosion coatings for the protection of steel** **A. Rexach[1], S. Naik[1], A. Taylor[1]** [1] TWI Ltd, Cambridge/GB
10:20 – 10:40	**Hydrotalcite coatings to protect spent aluminum-clad nuclear fuels during long term wet storage** **L. Ramanathan[1], S. Fernandes[1], O. Correa[1], J. De Souza[1], R. Antunes[2], M. De Olvieira[3]** [1] Instituto de Pesquisas Energéticas e Nucleares, São Paulo/BR [2] Universidade Federal do ABC, Santo André/BR [3] Electrocell Ind. Com. Equip. Elet. LTDA, São Paulo/BR
10:40 – 11:00	**Corrosion resistance and surface characteristics of plasma electrolytic oxidation coating produced on steels** **L. Pezzato[1], K. Brunelli[1], M. Magrini[1], M. Dabalà[1]** [1] University of Padua, Padova/IT
11:00 – 11:20	**Effect of Al content on the microstructure and corrosion resistance of plasma electrolytic oxidation (PEO) coatings on Mg-Al alloys** **T. Zhang[1], F. Wang[1], W. Zhang[1], F. Wei[1]** [1] Chinese Academy of Sciences, ShenYang/CN
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**

THURSDAY, 10.09.2015 SCIENTIFIC LECTURES PROGRAMME

Inorganic Coatings	
11:50 – 12:50	**Room: Saal 11**
Chairs	**F. Montemor**, Universidade Técnica de Lisboa, Lisboa/PT **J. Sykes**, University of Oxford, Oxford/UK
11:50 – 12:10	**Corrosion study of Ti6Al4V alloy and stability of TiO2 films thermally obtained and doped with lanthanum salt** **J. Flores Álvarez[1], F. Rodríguez-Gómez[1], E. Onofre Bustamante[2], P. Roncagliolo-Barrera[1]** [1] Universidad Nacional Autónoma de México (UNAM), México-City/MX [2] Instituto Politécnico Nacional (IPN), Altamira Tamaulipas/MX
12:10 – 12:30	**Strontium doped hydroxy-apatite coatings on Ti and NiTi by electrodeposition: surface and electrochemical characterization** **B. Munirathinam[1], L. Neelakantan[1]** [1] Indian Institute of Technology Madras, Chennai/IN

Mechanisms, Methods & Modelling	
10:00 – 11:20	**Room: Galerie B**
Chair	**M. Diamanti**, Politecnico di Milano, Milano/IT
10:00 – 10:20	**The behaviour of strontium aluminium polyphosphate in organic coating for corrosion protection of zinc alloy coated steel** **Y. Liu[1], X. Zhou[1], S. Lyon[1], S. Emad[1], G. Smyth[2], S. Gibbon[2], D. Francis[2], D. Graham[2]** [1] The University of Manchester, Manchester/GB [2] AkzoNobel, Felling, Gateshead/GB
10:20 – 10:40	**Mechanical and Electrochemical Characterization of TiO2 Nanotubular Structures exposed in two aqueous solutions of different pH.** **C. Cuevas Arteaga[1], A. Vera Jiménez[1], R. Melgoza Alemán[1], M. Valladares Cisneros[1]** [1] Universidad Autónoma del Estado de Morelos, Cuernavaca, Morelos/MX
10:40 – 11:00	**Evaluation of protective properties of the superhydrophobic coatings on aluminium alloy by electrochemical impedance spectroscopy** **S. Gnedenkov[1], S. Sinebryukhov[1], V. Egorkin[1], I. Vyaliy[1], A. Emelyanenko[2], L. Boinovich[2]** [1] Russian Academy of Sciences, Vladivostok/RU [2] A. N. Frumkin Institute of Physical Chemistry and Electrochemistry, Moscow/RU

THURSDAY, 10.09.2015 SCIENTIFIC LECTURES PROGRAMME

11:00 – 11:20	**Mechanistic investigation on acid corrosion and dew point corrosion of AlSi12 cast alloy** W. Wang[1], W. Fürbeth[1] [1] DECHEMA - Forschungsinstitut, Frankfurt am Main/DE
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Mechanisms, Methods & Modelling	
11:50 – 12:50	**Room: Galerie B**
Chair	**R. Ambat**, Technical University of Denmark, Lyngby/DK
11:50 – 12:10	**Surface analysis of passive films formed on Aluminum alloys in different metal cation containing solutions** M. Sakairi[1], R. Sasaki[1], O. Kyohei[1], K. Suzuki[1], A. Kaneko[2] [1] Hokkaido University, Sapporo/JP; [2] Nippon Light Metal Co. Ltd., Shizuoka/JP
12:10 – 12:30	**Effect of the crystallographic orientation of grains and mechanical stress on the corrosion resistance of pure aluminum in sodium chloride solution** H. Krawiec[1], Z. Szklarz[1] [1] AGH - University of Science and Technology, Krakow/PL
12:30 – 12:50	**Sensitization of AA5083 aluminium alloy** W. Wei[1], X. Zhou[1], G. Thompson[1] [1] University of Manchester, Manchester/GB

Environment Sensitive Fracture	
10:00 – 11:20	**Room: Saal 10**
Chair	**M. Borchert**, Montanuniversität Leoben, Leoben/AT
10:00 – 10:20	**Pitting corrosion resistance affecting corrosion fatigue behavior of CrMn-stainless steel in chloride-containing solutions** H. Sarmiento Klapper[1], J. Stevens[1] [1] Baker Hughes, Celle/DE
10:20 – 10:40	**Fatigue crack propagation in lubricating environment** B. L'Hostis[1], M. Frégonèse[2], B. Ter-Ovanessian[1], C. Verdu[1], C. Minfray[3], A. Da Costa D'Ambros[4] [1] INSA Lyon, Villeurbanne/FR; [2] Université de Lyon, Villerurbanne/FR [3] Ecole Centrale de Lyon, Ecully/FR; [4] TOTAL France, Solaize/FR

THURSDAY, 10.09.2015 SCIENTIFIC LECTURES PROGRAMME

10:40 – 11:00	**Corrosion attack of martensitic stainless steel in caster rolls** A. Lanzutti[1], N. Sartori[2], G. Luvarà[2], G. Carnelutti[2], M. Pellizzari[3], F. Andreatta[1], L. Fedrizzi[1] [1] University of Udine, Udine/IT; [2] Danieli & C Officine Meccaniche S.p.A., Buttrio/IT [3] University of Trento, Trento/IT
11:00 – 11:20	**Fabrication induced stress corrosion cracking of waste water volatile organic compounds stripper domes** S. Funani[1], A. Al-Meshari[1], A. Saha[2] [1] SABIC - Saudi Basic Industries Corporation, Jubail Industrial City/SA [2] Jubail United Petrochemical Company, Jubail Industrial City/SA

Automotive Corrosion	
10:00 – 11:20	**Room: Saal 12**
Chair	**F. Hannour**, Qatar National Research Fund, Doha/QA
10:00 – 10:20	**Corrosion protection performance of hot dip zinc-magnesium-aluminium-coatings in the automotive industry a bridge between laboratory tests and field applications** G. Luckeneder[1], J. Hagler[1], K. Stellnberger[1], L. Rolecek[2] [1] voestalpine Stahl GmbH, Linz/AT; [2] SKODA AUTO a.s., Mlada Boleslav/CZ
10:20 – 10:40	**Novel types of multifunctional electro-coatings for aluminium and magnesium** C. Rosenkranz Henkel, Düsseldorf/DE
10:40 – 11:00	**Thin-film pretreatment coating for multi-metal applications** P. Schubach[1]; S. Birkenheuer[1] [1] Chemetall GmbH, Frankfurt am Main/DE
11:00 – 11:20	**Anticorrosive performance of new thin layer pretreatments with standard and new materials in automotive coatings** U. Christ Fraunhofer IPA, Stuttgart/DE
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Automotive Corrosion	
11:50 – 12:30	**Room: Saal 12**

THURSDAY, 10.09.2015 SCIENTIFIC LECTURES PROGRAMME

Chair	**F. Hannour**, Qatar National Research Fund, Doha/QA
11:50 – 12:10	**Corrosion behaviour of ferritic stainless steels for automotive exhaust system at condensed water containing dissolved aluminium** S. Lee, POSCO, Incheon/KR
12:10 – 12:30	**Local probing & modelling of micro-galvanic corrosion of Al alloys** **L. Yin[1], Y. Jin[2], C. Leygraf[1], J. Pan[1]** [1] KTH Royal Institute of Technology, Stockholm/SE [2] University of Science and Technology Beijing, Beijing/CN

Archaeological and Historical Artefacts	
10:00 – 11:20	**Room: Saal 2**
Chair	**D. Watkinson**, Cardiff University, Cardiff/GB
10:00 – 10:20	**Degradation phenomena of bronze artefacts in coastal archaeological environments of the Mediterranean basin** **S. Grassini[1], E. Angelini[1], O. Papadopoulou[2], P. Vassiliou[2], G. Ingo[3], V. Gouda[4]** [1] Politecnico di Torino, Torino/IT [2] National Technical University of Athens, Athina/GR [3] CNR-Montelibretti, Roma/IT; [4] National Research Centre, Dokki/EG
10:20 – 10:40	**Patinated bronze protection by long chain organic acids** **H. Otmačić Ćurković[1]; Z. Hajdari[1]; M. Markusi[1]; E. Kristan[1]** [1] University of Zagreb, Zagreb/HR
10:40 – 11:00	**Protection of bronze statuary, comparison of classical treatments and approaches with carboxylates** **E. Apchain[1], D. Neff[1], A. Texier[2], A. Azéma[2], F. Mirambet[3], D. Robcis[3], J. Gallien[1], A. Noumowé[4], P. Dillmann[1]** [1] CEA Saclay, Gif-sur-Yvette/FR [2] Laboratoire de Recherches des Monuments Historiques, Champs-sur-Marne/FR [3] Centre de Recherche et de Restauration des Musées de France, Paris/FR [4] Université de Cergy-Pontoise, Cergy-Pontoise/FR
11:00 – 11:20	**Self assembled film of thiol compounds on bronze** **G. Tansug[1], G. Sigircik[1], T. Tüken[1]** [1] Çukurova University, Adana/TR

Cathodic Protection	
10:00 – 11:20	**Room: Galerie C**

THURSDAY, 10.09.2015 SCIENTIFIC LECTURES PROGRAMME

Chairs	**J. Crouzillac**, BAC Corrosion Control, Voisins-le-Bretonneux/FR **A. Grolleau**, DCNS Research, Cherbourg-Octeville/FR
10:00 – 10:20	**Study of corrosion protection of steel rebars in concrete by sacrifical anodes of Zn-Al-In alloys and by green inhibitor locust bean gum** **Z. Gaçe[1], A. Lame[1], E. Kokalari[1], A. Jano[2], A. Sadiku[3]** [1] University of Tirana, Tirana/AL; [2] Polytechnik University of Tirana, Tirana/AL [3] Faculty of Geoscience and Technology, Mitrovica/DE
10:20 – 10:40	**Interpretation and use of the off-potential technique for the assessment of cathodic protection condition** **A. Brenna[1], L. Lazzari[1], M. Ormellese[1], M. Pedeferri[1], [1] Politecnico di Milano, Milano/IT**
10:40 – 11:00	**Selecting appropriate cathodic protection criteria for tank bottom using polarization method** **M. Attarchi[1], S. Mirghafourian[1], M. Nasri Karladani[1], [1] Borna Electronics Co., Tehran/IR**
11:00 – 11:20	**Upgrade the existing sacrificial cathodic protection system to ICCP system for existing tanks bottom plates** F. Alfawaz, SABIC, Jubail/SA
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**

Cathodic Protection	
11:50 – 12:50	**Room: Galerie C**
Chairs	**J. Crouzillac**, BAC Corrosion Control, Voisins-le-Bretonneux/FR **M. Roche**, Cefracor, Paris/FR
11:50 – 12:10	**Influence of soil moisture on the residual corrosion rates of buried carbon steel structures under cathodic protection** **P. Refait[1], D. Nguyen Dang[2], L. Lanarde[3], M. Jeannin[1], R. Sabot[1]** [1] Université de la Rochelle, La Rochelle/FR [2] Université de Caen Basse-Normandie, Caen/FR [3] GDF Suez-Crigen, Saint-Denis La Plaine/FR
12:10 – 12:30	**Cathodic protection of tank bottom plates to mitigate soil side corrosion** **W. Baig[1], F. Alfawaz[1]** [1] SABIC - Saudi Basic Industries Corporation, Al-Jubail Industrial City/SA
12:30 – 12:50	**Comparison between ECDA methods for corrosion and coating survey of underground pipeline** **H. Ettelaie[1], F. Faraji[1]** [1] IOPTC - Iranian Oil Pipeline & Telecommunication Co., Tehran/IR

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Electrochemical Sensors	
10:00 – 11:20	**Room: Galerie A**
Chair	**G. Fafilek**, TU Wien, Wien/AT
10:00 – 10:20	**The development of a sensors based technology for remote monitoring, prediction and optimisation of structural failure parameters** M. Nazir[1], Z. Khan[1] [1] Bournemouth University, Bournemouth/GB
10:20 – 10:40	**Permanent zinc reference electrodes for soil applications** P. Marcassoli[1], M. Mori[1], M. Ginocchio[1], B. Bazzoni[1] [1] Cescor srl, Milano/IT
10:40 – 11:00	**Development of carborane based membranes for the selective determination of serotonin in clinical samples using potentiometric sensors** C. Bliem[1], A. Stoica[1], C. Kleber[1] [1] CEST Kompetenzzentrum für elektrochemische Oberflächentechnologie GmbH, Wiener Neustadt/AT
11:00 – 11:20	**Methods for hydrogen detection in metals and aqueous solutions** G. Schimo[1], S. Walkner[1], C. Mardare[2], A. Hassel[2] [1] CEST Kompetenzzentrum für elektrochemische Oberflächentechnologie GmbH, Wiener Neustadt/AT [2] Johannes Kepler Universität Linz, Linz/AT
11:20 – 11:50	**COFFEE BREAK / Room: Exhibition Area**
Electrochemical Sensors	
11:50 – 12:30	**Room: Galerie A**
Chair	**G. Fafilek**, TU Wien, Wien/AT
11:50 – 12:10	**Screening of formaldehyde and hydrazine electrocatalytic oxidation of a copper-nickel thin film combinatorial library** I. Pötzelberger[1], A. Mardare[1], A. Hassel[1] [1] Johannes Kepler Universität Linz, Linz/AT
12:10 – 12:30	**Enhanced sensitivity on electrochemical glucose sensor due to corrosion** G. Fafilek[1], S. Kogler[1], M. Joksch[2], M. Gerstl[1], S. Wibihal[1] [1] TU Wien, Wien/AT; [2] Siemens AG, Wien/AT

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Closing Remark	
12:50 – 13:10	**Room: Saal 1**
Chairs	**F. Montemor**, Universidade Técnica de Lisboa, Lisboa/PT **A. Mol**, TU Delft, Delft/NL **G. Mori**, Montanuniversität Leoben, Leoben/AT