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WELCOME MESSAGE



Welcome message

Eurocorr is the yearly appointment for European corrosion scientists and engineers, and sees the participation of delegates from all over the world. So far, Eurocorr has established itself as one of the most important events for everyone involved in the problems of corrosion: from researchers, to university and to industry. Indeed, in the past few years the industrial participation has been matching, and even exceeding, the academic one. This result shows that the merging between academic research and industry is becoming a consolidated reality. This year we believe that the industrial participation will be particularly active and lively, as attested by the increased number of exhibitors, which is still far from the potential offered by the European industry, but constantly growing: this proves that Eurocorr is becoming a reference not only for researchers, but also for industry.

This year, Eurocorr is hosted in the city of Pisa, renowned worldwide not only for its leaning tower, but also as the birthplace of Galileo Galilei, and cradle of his first revolutionary scientific researches. We can say that even now, just like in Galileo's times, we need to build bridges between research and applications, improving the transfer of knowledge from the world of research to the one of industrial production. This is how the conference aims at tracing a connection between research and industry: by "improving materials durability: from cultural heritage to industrial applications", as stated by the main theme of Eurocorr 2014.

The conference includes 461 oral presentations, including 3 plenary lectures and 9 keynote lectures. The poster session contains 174 works: many of them are presented by young researchers.

In addition this year, through the presence of more than 50 European and extra-European countries, Eurocorr confirms to be a great opportunity of meeting point between researchers and industrial world, providing a forum which can enable the achievement of new, important objectives.

Thank you all for joining Eurocorr 2014.

Prof. Luciano Lazzari
Congress Chairman



SEITZTUNTOC

Committees

International Scientific Committee*Co-Chairpersons*

Luciano Lazzari

Lorenzo Fedrizzi

Arjan Mol

Ralph Bäßler

Federica Bassani

Roman Bender

Jean-Pierre Celis

Pierangela Cristiani

Jerome Crouzillac

Wilhelm Erning

Lorenzo Fedrizzi

Damien Feron

Ralf Feser

Wolfram Fürbeth

Mathias Galetz

Theo Hack

Fouzia Hannour

Don Harrop

Jürgen Heinemann

Andreas Heyn

Ulf H. Kivisakk

Philippe Marcus

Willi Meier

J.M.C. Arjan Mol

Delphine Neff

Steve Paterson

Michael Raupach

Marcel Roche

François Ropital

Günter Schmitt

Michael Schütze

Alda Simoes

Tamas Istvan Török

Tunc Tüken

Krzysztof Wolski

Local Organising Committee

Emma Angelini

Francesco Bellucci

Massimiliano Bestetti

Fabio Bolzoni

Pier Luigi Bonora

Marina Cabrini

Pierangela Cristiani

Flavio Deflorian

Massimo De Sanctis

Lorenzo Fedrizzi

Romeo Fratesi

Giovanna Gabetta

Luciano Lazzari

Gianfranco Lovicu

Giampiero Montesperelli

Cecilia Monticelli

Tommaso Pastore

Edoardo Proverbio

Stefano Trasatti

Roberto Venturini

Sergio M. Volontè

Local Organising Secretariat

Federica Bassani

Sabrina De Donato

Antonella Donzelli

Carlo Mapelli

Marco Molinaro

Elena Nicodemi

EFC Congress office

Roman Bender

Heike Geiling

Ines Honndorf

Willi Meier



**GENERAL INFORMATION
AND CONGRESS VENUE**

General Information and Congress Venue

GENERAL INFORMATION

Official language

English will be the official language of the congress.

Welcome Reception

The welcome reception will take place at the Palazzo dei Congressi on Monday, **September 8**, at 18.00.

Congress Gala Dinner

The Congress gala dinner will be held at **Villa Scorzi in Calci** in the evening of **Thursday, September 11**.

The Congress Organizers will provide transfers to and from the dinner venue. Transfers will depart at 19.30 from (and return to) the Congress Center. Due to the limited number of seats available, the Congress dinner had to be booked at the time of registration; however it might still be possible to purchase it at the administration desk in Pisa until Midday of Tuesday, September 9.

Registration desk opening hours

8 September: 16:00-19:30

9 September: 08:00-18:00

10 September: 08:30-18:00

11 September: 08:30-18:00

12 September: 08:45-14:00

Registration fees

Early, Late and On-site registration fees include:

- ✓ Admission to all Congress Sessions, Poster Sessions and Exhibition
- ✓ Congress bag with Book of Abstracts and Congress Proceedings (both on USB-flash drive)
- ✓ Welcome Reception, Poster Party, Lunches and Coffee Breaks

✓ for Non-members registration fees include AIM (EFC) membership for the last quarter of 2014 and for the year 2015.

Promo registration fee includes everything listed for Early, Late and On-site registration plus the Congress gala dinner.

Internet point and Wifi connection

An internet point will be available for delegates close to the slide center. Wifi connection will be available free of charge. Please request your user id and password at the registration desk.

Slide Center

A Slide Centre will be available for delegates during the entire period of the Congress. The Slide Center will be located in Room A.

Badges

All officially registered delegates, exhibitors and sponsors wearing their official Congress badge will be admitted to the Congress Center. All attendees will have to wear their badge visible at all times in order to obtain admittance to the areas and functions at the Congress Center.

Exhibition

The exhibition will be located in the main gallery located on the ground floor of the Congress Center, from 8 to 12 September.

8 September: 18:00-19:30

9 September: 09:00-18:00

10 September: 09:00-19:30

11 September: 09:00-18:00

12 September: 09:15-14:00

Publications

The full texts of the accepted papers will be published in the Congress proceedings. The Congress proceedings as well as a Book of abstracts will be distributed on USB-flash drives to all registered participants, on arrival at the Congress at the Registration desk.

A printed Book of abstracts is also published, in a limited edition and it will be available for those who reserved a copy at the time of Registration. The price of each copy of the printed Book of Abstract is 52 €. Attendees interested in purchasing extra copies of the Book of abstracts will have to check availability directly at the Registration desk.

Certificate of attendance

Registered participants will receive a certificate of attendance on request. The certificate will be available at the Registration desk, from the afternoon of Tuesday, September 9.

Mobile/cell phone

Mobiles must be kept turned off or in silent mode in all Congress rooms.

Insurance

The Congress Secretariat cannot assume any responsibility for personal accident, loss or damage to the private property of participants and accompanying persons, which may either occur during or arise from the congress. Participants should therefore take whatever steps they consider necessary as regards insurance.

General Information and Congress Venue

CONGRESS VENUE

Congress Center

EUROCORR2014 will be staged at Palazzo dei Congressi of Pisa, located in Via Matteotti 1 - 56124 Pisa (www.palazzodeicongressi.pisa.it).

Tuscany and Pisa

Tuscany is a region whose fortunes for millennia have been linked to the extraction of the minerals that were lavishly offered by its territory and to a metallurgical activity which dates back to the Bronze Age. But today Tuscany is especially appreciated for the sumptuous views of its landscapes and for the abundance of superlative art and architecture.

Pisa

Pisa is one of the most beautiful art cities of Italy: buildings, monuments and museums give their contribution to keep alive the memory of the ancient Pisa, the one that was a Maritime Republic and, for a long time, the ruler of the Mediterranean. Since its golden era from the 9th to the 13th century, the city has been a sanctuary for artists, writers and poets – and it has lost none of its charm. Today, thanks to its important University, Pisa is a dynamic, young and living city. No one should come to Pisa without visiting the Piazza del Duomo. Famously described by poet Gabriele D'Annunzio as Piazza dei Miracoli (the square of miracles), it offers a breathtaking view of the world-famous monuments, including the cathedral, the baptistery, the cemetery and the leaning tower itself. Though often overlooked by tourists obsessed with the tower, the cathedral, with its beautiful marble façade and Moorish mosaics, is one of the finest examples of Romanesque architecture. Its world famous Leaning Tower started to lean immediately after its construction in the 12th century, and Galileo Galilei later made use of this fact to study gravity. Supreme symbol of durability, named as a UNESCO World Heritage, this iconic site will make of Pisa the most suitable and pleasant background for EUROCORR 2014.

Pisa offers great accessibility, quality and variety of services, attractions, efficient organization, tradition in hospitality, welcoming comfort and affordable prices for accommodation.

Restaurants

Home to an abundance of restaurants and cafés, Pisa is a great place to try top-notch Italian as well

as typical Tuscan cuisine. The many stylish locations in Pisa and wide variety of superb, mouth-watering menus, often with an emphasis on fish, make Pisa dining an enjoyable experience. Pasta combined with excellent local produce, such as fresh tomatoes, olive oil and rich Italian cheeses all combine to create the wonderful and delightful flavours associated with Italy. Whether you are looking for a romantic meal for two or trendy, lively Pisa dining, the only problem is deciding where to go, as there are so many restaurants in Pisa to choose from!

Coperto

“Coperto” is the amount charged, per person, to sit down at a table. While a “coperto” is not the same thing as a tip, tipping in Italy is not necessary, and never more than 5-10 percent.

Shopping

Selling a wide variety of quality Italian goods, including jewellery, stylish clothes and tempting, gorgeous food, shops in Pisa are also full of souvenirs. The arcaded Borgo Stretto is one of Pisa's smartest and it is full of shops with glittering consumer desirables. Try visiting some of the backstreets, which are where the locals in Pisa tend to shop, for a more interesting approach to shopping. Corso Italia, via Mercanti and Via dei Rigattieri, also boast many excellent shops. All around the centre of the city there are dealers who sell old books and paintings. Pisa shops are generally open from 09:00 to 13:00 and from 15:30 or 16:00 to 19:30 or 20:00, although many of the bigger shops in Pisa now open all day. On Saturday shops tend to close earlier at around 17:30 and only a few open on Sundays. Also, many shops in Pisa do not open on Monday morning.

Markets

Full of character and real life, the busy markets in Pisa, Italy are an integral part of Pisan local life. They provide a great place to find bargains in Pisa or just browse around the wide variety of stalls and enjoy the exciting atmosphere and local market banter. Pisa's bustling markets range from the very large to the small, discreet collection of stalls, situated in small squares in Pisa. They are held in and around Pisa, providing a fun way to shop, for both experienced and novice bargain hunters alike.

✓ *Via Buonarroti* - this busy market is held every Wednesday and Saturday and sells a wide variety of clothing and various other articles

General Information and Congress Venue

- ✓ *Via San Martino* - held every Wednesday and Saturday, this market sells clothes and fashion accessories
- ✓ *Marina di Pisa Market* - this clothing market includes a large selection of second-hand clothes
- ✓ *Piazza delle Vettovaglie*- an excellent daily food market just off Via Borgo Stretto, full of fresh Italian produce, from 07:00 to 13:30
- ✓ *Ponti di Mezzo* - an antiques market held on the second weekend of each month
- ✓ *Piazza Vittorio Emanuele II* - a large variety of exotic medieval flavours can be found in this little farmers market
- ✓ There are also a number of stands lined up on the green lawn near to the tower selling souvenirs, including models of the Leaning Tower of Pisa and other Pisan buildings. The souvenirs are generally of good quality and this in an interesting place to browse

Climate and clothing

September is usually one of the most pleasant months of the year to be in Tuscany. The weather is still balmy, with summer-like weather, but not hot. In early September temperatures range from 26°C (78°F) to 14°C (58°F) and most people are still going to the beach regularly. It is warm enough that you can comfortably wear your summer clothes from dawn to dusk, and it is still great weather for dining outdoors and using swimming pools. By mid September, temperatures are usually lower, around 22-23°C. A light jacket or sweater might be necessary in the mornings and evenings.

Local time

Pisa Time is in the Central European Time Zone. Central European Standard Time (CET) is 1 hour ahead of Greenwich Mean Time (GMT+1). Like most states in Europe, Summer (Daylight-Saving) Time is observed in Pisa Time, where the time is shifted forward by 1 hour; 2 hours ahead of Greenwich Mean Time (GMT+2).

Electric power

Electricity in Italy, as in the rest of Europe, comes out of the wall socket at 220 volts alternating at a 50 cycles per second. Standard plugs have three round pins in-line with the grounding pin in the middle. Schuko plugs are also used, though they are less common.

If you plan on using your own 110-volt appliances, you will need a voltage converter, unless your

appliance is designed to also work with 220 volts electricity (dual voltage).

Telephone number formats and prefixes

Italian phone numbers have variable length, both in the prefisso (prefix, used to be the area code) and in the local part of the number. The prefix must always be included, even for local calls.

International calls must be prefixed by 00 and the international prefix for the country you are calling (so it is 001 for the US, 0044 for the UK, and so on). The international phone prefix for Italy is +39.

Language

The local language is of course Italian, with no strong dialect spoken. English is mostly understood and (slightly less often) also spoken.

Units

Our unit system is based on the SI system, with distance measured in meters, weight in kilos, volumes in liters, time in seconds, and temperature in Celsius degrees.

As a rough conversion, 1 km = 0.62 miles, 1 kg = 2.2 pounds, 1 liter = 0.264 gallons. A pint is roughly 0.47 liters, but the equivalent of a pint of beer (birra media) is normally just 0.4 liters.

We also strictly follow the decimal system, so there is no such a unit as one third of a meter or 1/32nd of a kilo.

Medical services

Health emergencies can be dealt with at the **Pisa Hospital**, located in Via Bonanno, emergencies being signaled at 0039 055 992 300. Another number to dial with medical emergencies is 118. However, tourists must be up to date with the latest medical insurances policies so they don't encounter difficulties. Pharmacies are also an alternative for less serious health-related issues.

EU citizens (and those of Switzerland, Norway and Iceland) are entitled to the same free health services in public hospitals as Italians, but will need to present a European Health Insurance Card (EHIC; formerly the E111).

Emergency treatment is available free or at low cost to anyone in need in Italy.

Hospitals in Italy are called 'Ospedale' and have emergency rooms 24h.

Private hospitals are called 'Casa di cura' or 'Clinica' and do not have emergency rooms.

General Information and Congress Venue

Emergency numbers

- ✓ 112 - Polizia (general emergencies, medical, fire and police)
- ✓ 118 - Pronto Soccorso (emergency medical service)
- ✓ 113 - Carabinieri (police)
- ✓ 115 - Vigili del fuoco (fire brigade)
- ✓ 170 - International Operator (English speaking)

VAT

Sales tax (VAT) is included in prices quoted. Non EU residents can claim a VAT (*Value Added Tax*) rebate on purchases of over 155 Euros spent in a single store. Several shops displaying a “**tax free shopping**” sign will be able to inform you on the procedures that need to be followed.

Local transportation

While in Pisa, you'll have a choice between local

bus service, taxi, and bike to move about town, and bus, train and rental cars should you wish to visit surrounding places. Additionally, since the points of interest are very close together, you may want to consider just walking around. Before riding a bus, remember to buy a ticket in a *tabacchi* (usually, there is a big “T” outside such shops) or an automated machine or a newspaper shop.

Taxis

You need to call for a taxi (+39 050 541600), or go to an actual taxi stand. You cannot hail a cab on a street in Italy.

Post offices

Opening times of Post Offices can vary depending on their location and size, but they are generally open from 8 a.m. until 2 p.m. Monday to Friday and on Saturday mornings.

Floor Plan





SCIENTIFIC PROGRAMME

Programme-at-a-glance

MONDAY, 8 SEPTEMBER 2014

09:00 - 13:00	STAC Meeting
13:00 - 14:00	Joint Lunch (STAC & BoA)
14:00 - 18:00	BoA Meeting
16:00 - 18:00	Registration
18:00 - 19.30	Welcome reception and Opening of the Exhibition

**Possible changes to the programme
will be communicated during the Congress**



Programme-at-a-glance

TUESDAY, 9 SEPTEMBER 2014

08:00 - 09:00					
Registration					
09:00 - 09:30					
Opening Ceremony: Prof. L. Lazzari, Prof. C. Mapelli, Prof. L. Fedrizzi					
09:30 - 09:45					
EFC Medal Award					
09:45 - 10:30					
Plenary Lecture (PL-7839): H. Terry, Vrije Universiteit Brussel/B					
10:30 - 11:00					
Coffee break					
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Room C	Room D
Topic	Metallic Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>W. Furbeth / M. Olivier</i>	<i>P. Marcus / J.M.C. Mol</i>	<i>S. Paterson / S. Shademan</i>	<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / W. Hater</i>
11:00 - 11:20	7125 T.C. Kim	Keynote 7153 S. Virtanen	7266 A. Scatena	Keynote 7850 A. Dogan	7114 W. Hater
11:20 - 11:40	7369 A. Alvarez Pampliega		7171 T. Sunaba		7394 O. Conejero
11:40 - 12:00	7411 A. Tomandl	7070 H.N. McMurray	7368 Y. Ishiguro	7315 S.P. Ambade	7169 H. Gerengi
12:00 - 12:20	7430 G. Williams	7246 L. Yang	7154 F. Vucko	7209 C. Schreiber	7581 D. Peca
12:20 - 12:40	7323 A. Mertke	7290 M. Trueba	7253 F. Zanotto	7269 T. Todzy	7299 I. Baghni
12:40 - 14:00	Lunch				
Topic	Metallic Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>W. Furbeth / M. Olivier</i>	<i>S. Virtanen / H.N. McMurray</i>	<i>S. Paterson / S. Shademan</i>	<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / W. Hater</i>
14:00 - 14:20	7773 H. Sahrhage	7545 L. Rossrucker	7805 G. Byrne	7433 R. Scharf	7289 H. Otmacic Curkovic
14:20 - 14:40	7244 R. Steinberger	7310 M. Curioni	7821 T. Cassagne	7540 M. Jönsson	7498 G. Tansug
14:40 - 15:00	7399 Y. Sato	7626 H. Krawiec	7576 M.E. Wilms	7639 M. Ström	7352 I. Arkhipushkin
15:00 - 15:20	7055 Y. Omori	7278 K. Fushimi	7141 H. Rese	7655 H. Kajiyama	7173 S. Rankin
15:20 - 15:40	7418 E. Garcia-Lecina	7578 C. Taxen	7776 S. Kolesov	7670 C. Colombo	
15:40 - 16:10	Coffee break				
Topic	Metallic Coatings	Mechanisms & Methods		Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>A.Mol / R. Feser</i>	<i>S. Virtanen / H.N. McMurray</i>		<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / W. Hater</i>
16:10 - 16:30	7081 F. Delaunois	7237 H. Simillion		7193 N. Lebozec	7255 T. Cheldi
16:30 - 16:50	7625 C. Zanella	7417 V. Shkirskiy		7349 Y. Yoo	7610 G. Mori
16:50 - 17:10	7757 D. Tharandt	7478 K. Azumi		7221 P. Buttin	7737 S. Al Subai
17:10 - 17:30	7166 S. Gnedenkov	7338 S. Sinebryukhov		7161 M.W. Grabowski	
17:30 - 17:50		7676 H.B. Mohammed Ali		7526 D. Iqbal	
18:00 - 19:10	EFC General Assembly				

Programme-at-a-glance

Registration				
Coffee break				
Room E	Room 4	Room 2	Room 5	Room 3
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	WS B: Corrosion Reliability of Electronic Devices	Microbial Corrosion	WS K: Valuable building and urban decoration
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>R. Ambat / H. Schweigart</i>	<i>P. Cristiani / R. Basseguy</i>	<i>P.L. Bonora</i>
7139 M. Kouril	7200 R. Melchers	7822 R. Ambat	Keynote 7848 P. Refait	7835 F. Ciardelli
7190 C. Chiavari	7261 C. Monticelli	7819 H. Schweigart		7828 F. Meneghelli
7464 B. Salvadori	7437 E. Volpi	7818 M. Nowotnick	7623 F. Mercier-Bion	7807 G. Di Tanna
7259 A. Balbo	7551 M.C. Bignozzi	7447 V. Verdingovas	7794 M. Carvalho	7816 P.L. Bonora
7197 A.R. Moreira	7550 M. Kosalla	7082 H. Conseil	7353 A. Spark	7812 A. Locaspi
Lunch				
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	WS B: Corrosion Reliability of Electronic Devices	Microbial Corrosion	WS K: Valuable building and urban decoration
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>R. Ambat / H. Schweigart</i>	<i>P. Cristiani / R. Basseguy</i>	<i>P.L. Bonora</i>
7382 C. Leygraf	7060 U. Angst	7495 K. Piotrowska	7384 I. Rouvre	7450 M.P. Pedferri
7192 C. Chiavari	7260 F. Pargar	7227 J. Cetier	7077 P. Beese-Vasbender	7849 A. Colombo
7311 A. Domenech	7553 B. Tribollet	7225J. Cetier	7703 A. Allion	7782 T. Ishizaki
7425 K. Kreislova	7624 M. Gastaldi	7426 M.S. Jellesen	7084 A. Lotfollahi Yaghin	
7787 B. Elsener		7521 K.A. Schmidt	7533 M. Grattieri	
Coffee break				
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	WS B: Corrosion Reliability of Electronic Devices	Microbial Corrosion	
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>R. Ambat / H. Schweigart</i>	<i>P. Cristiani / R. Basseguy</i>	
7186 M. Bouchar	7207 G. Ebell	7203 R. Minamitani	7199 R. Melchers	
7474 S. Grassini	7546 T. Bellezze	7824 L. Müller	7229 T.L. Skovhus	
7594 S. Grousset	7314 I. Pepenar	7236 M.A. Ashworth	7613 D. Fischer	WP 22 business meeting
7136 C. Remazeilles	WP 11 business meeting	7403 C.J. Stuttle	7846 Y. Fei	
7651 H. De Melo		7823 J.B. Jacobsen	7334 Z. Song	
EFC General Assembly			7683 H. Ge	

Programme-at-a-glance

WEDNESDAY, 10 SEPTEMBER 2014

09:00 - 09:45	Plenary Lecture (PL-7838): P. Dillmann, Commissariat à l'Énergie Atomique (CEA), Gif-sur-Yvette/F				
09:45 - 10:00	Break for Changing Lecture Hall				
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Room C	Room D
Topic	Pretreatments	Mechanisms & Methods	Corrosion in Oil and Gas	Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>I. V. Aoki / M. Zheludkevich</i>	<i>J.M.C. Mol / F. Deflorian</i>	<i>S. Paterson / M. Achour</i>	<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / B. Bavarian</i>
10:00 - 10:20	7302 R. Din	7211 V. Maurice	7226 P. Barnes	Keynote 7851 B. Normand	7108 B. Bavarian Keynote
10:20 - 10:40	7725 J. Gracenea	7158 B. Malki	7233 G. Genchev		
10:40 - 11:00	7752 E. Isotahdon	7213 C. Örnek	7095 M. Sakairi	7224 S. Mendez	7815 C. Mille
11:00 - 11:20	7262 T. Matsuda	7275 A. Nishikata	7106 A. Abdurrahim	7385 L. Peguet	7658 O.A. Goncharova
11:20 - 11:50	Coffee break				
	Self-healing Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>I. V. Aoki / M. Zheludkevich</i>	<i>J.M.C. Mol / F. Deflorian</i>	<i>S. Paterson / M. Achour</i>	<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / B. Bavarian</i>
11:50 - 12:10	7287 I.V. Aoki	Keynote 7695 P. Marcus	7100 O. Fumei	7511 J. Cerezo	7587 R. Lindsay
12:10 - 12:30	7187 G. Montesperelli		7472 M. Tjelta	7614 M. Kocabas	7736 G. Schmitt
12:30 - 12:50	7522 L. Calabrese	7572 J. Pan	7724 M. Al-Hammad	7482 K. Bordo	7303 S. Umoren
12:50 - 13:10	7412 M. Walczak	7455 M. Babutzka	7563 N. Almeida	7152 A.-P. Romano	7307 N. Andreev
13:10 - 14:30	Lunch				
Topic	Self-healing Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>L.M. Calle / H. Terryn</i>	<i>V. Maurice / H. Krawiec</i>	<i>S. Paterson</i>	<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / B. Bavarian</i>
14:30 - 14:50	7379 F. Leroux	7506 F. Deflorian	WP 13 business meeting	7460 O. Golenishcheva	7438 I. Obot
14:50 - 15:10	7185 F. Andreatta	7480 V. Vignal		7481 U. Depner-Miller	7778 C. Cuevas
15:10 - 15:30	7585 F. Cotting	7499 B. Ter-Ovanessian		7327 G. Mori	7234 C. Jama
15:30 - 15:50	7282 A. Lutz	7217 H. Peng		7383 M. Ekström	7280 I. Aiad
15:50 - 16:10	7195 L.M. Calle	7138 A. Balbo		7678 P. Volovitch	7674 C. Resende
16:10 - 16:40	Coffee break				
Topic	Self-healing Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Automotive Corrosion	Corrosion and Scale Inhibition
Chair(s)	<i>L.M. Calle / H. Terryn</i>	<i>P. Marcus / J.M.C. Mol</i>	<i>S. Paterson</i>	<i>F. Hannour / G. Despert</i>	<i>G. Schmitt / B. Bavarian</i>
16:40 - 17:00	7145 H. Terryn	7245 E. Sutter	WP 13 business meeting	7497 D. Knoll	7774 R.T. Loto
17:00 - 17:20	7228 T. Tran	WP 6 & 8 business meeting		7854 E. Szala	7056 S. Rajendran
17:20 - 17:40	WP 14 business meeting			WP 17 business meeting	WP 1 business meeting
17:40 - 18:00					
18:00 - 19:30	Poster Party and Poster Award				

Programme-at-a-glance

Break for Changing Lecture Hall				
Room E	Room 4	Room 2	Room 5	Room 3
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	JS E: Marine Corrosion	Microbial Corrosion	Corrosion in the Refinery Industry
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>U. Kivisaak / J. Crouzillac</i>	<i>P. Cristiani / R. Basseguy</i>	<i>F. Ropital</i>
7496 E. Nordgren	7051 A. Borderon	7222 A.M. Grolleau	7791 C. Grengg	7726 A. Pette
7555 N.J. Emmerson	7265 D. Bastidas	7729 P. Marcassoli	7377 G. Ghiara	7740 G. Benassi
7589 J. Dracott	7354 Y.T. Tan	7306 A. Zanibellato	7802 M. Vastra	7579 G. Marlair
7390 M. Bayle	7088 G. Duffó		7797 P. Cristiani	7699 L.F.P. Dick
Coffee break				
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	WS F: Marine Corrosion	Microbial Corrosion	Corrosion in the Refinery Industry
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>P. Dent / L. Hilpert</i>	<i>P. Cristiani / R. Basseguy</i>	<i>F. Ropital</i>
7258 D. Watkinson	7107 B. Bavarian	7792 A. Momber	7322 R. Feser	7061 A. Groysman
7734 M. Raedel	7656 N. Gartner	7230 A.R. Black	7357 S. Almaaesab	7408 O. Knudsen
7671 E. Angelini	7701 C. Loable	7365 B. Jensen	7301 E. Leon	7841 K.F. Al-Hajri
7459 J. Tidblad	7842 A. Bossio	7375 S. Ayyar	7075 Y. Tanji	7127 F. Omer
Lunch				
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	Marine Corrosion	Drinking Water	Corrosion in the Refinery Industry
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>U. Kivisaak</i>	<i>W. Erning</i>	<i>F. Ropital</i>
7562 E. Joseph	7393 R. Sorensen	7370 D. Thierry	7388 A. Becker	
7272 J. Stoullil	7116 A. Susanto	7735 H. Yakuwa	7466 R. Logan	7817 V. Bour Beucler
7628 T. Kosec	7241 A. Blagojevic	7458 S. Paul	7753 A. Colombo	7500 R. Lackner
7519 S. Grassini	7741 J. Lahdensivu	7129 P. Refait	7548 A. Allion	7554 J. Zhang
7319 K. Marusic	7557 D.A. Koleva	7144 M. Schneider	7424 E. Johansson	7120 H. Aldaghi
Coffee break				
Archaeological and Historical Artefacts	Corrosion of Steel in Concrete	Marine Corrosion	Drinking Water	High Temperature Corrosion in the Refinery, Petrochemical and chemical Industries
<i>D. Neff</i>	<i>M. Raupach / C. Helm</i>	<i>U. Kivisaak</i>	<i>W. Erning</i>	<i>M. Schütze / F. Ropital</i>
7727 E. Angelini	7583 M. Raupach	7627 J. Tedim	7380 M. Borchert	7400 M. Mosquera Feijoo
7843 S. Jansen	7662 P. Chess	7790 C. Perez	7358 M. Bajt Leban	7240 V. Peres
7376 R. Ben Channouf		7808 Y.L. Huang	7410 S. Hägg Mameng	7135 P. Thornthwaite
WP 21 business meeting		7606 M. Najmi	7852 A. Acquesta	
Poster Party and Poster Award				

Programme-at-a-glance

THURSDAY, 11 SEPTEMBER 2014				
09:00 - 09:45	Plenary Lecture (PL-7840): L. Lazzari, Politecnico di Milano/I			
09:45 - 10:00	Break for Changing Lecture Hall			
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Room C
Topic	Inorganic Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Nuclear Corrosion
Chair(s)	<i>L. Fedrizzi / A. Simoes</i>	<i>P. Marcus / V. Vignal</i>	<i>S. Paterson / J. Kittel</i>	<i>D. Féron / S. Ritter</i>
10:00 - 10:20	7775 A.M. Simoes	Keynote 7708 J. Deconinck	7510 F. Todesco	Keynote 7691 S. Trévin
10:20 - 10:40	7362 S. Pfeifer		7571 W. Grimes	
10:40 - 11:00	7232 B. Tigges	7313 A.M. Homborg	7491 L. Alleva	7104 S. Uchida
11:00 - 11:20		7697 D. Mills	7439 E. Mavredaki	7133 J. Caballero Hinostroza
11:20 - 11:50	Coffee break			
Topic	Inorganic Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Nuclear Corrosion
Chair(s)	<i>L. Fedrizzi / A. Simoes</i>	<i>P. Marcus / V. Vignal</i>	<i>S. Paterson / J. Kittel</i>	<i>Th. Couvant / M. Vankebergen</i>
11:50 - 12:10	7666 C. Olivero	7373 H. Terry	7508 E. Fallahmohammadi	7149 F. Hamdani
12:10 - 12:30	7593 N. Chahboun	7484 G. Schimo	7407 J. Khosravi	7436 G. Klimaytys
12:30 - 12:50	7239 L. Pezzato	7137 C. Remazeilles	7448 M.V. Diamanti	7636 B. Zajec
12:50 - 13:10	7242 S. Mirhashemihaghghi	7204 D. Rückle	7684 R. Valentini	7661 C. de Araujo Figueiredo
13:10 - 13:30	7428 U. Depner-Miller	7570 N. Khobragade	7395 A. Smith	
13:30 - 14:50	Lunch			
	Inorganic Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Nuclear Corrosion
Chair(s)	<i>M.G.S. Ferreira / P. Keil</i>	<i>K. Fushimi / J. Pan</i>	<i>S. Paterson / M. Wilms</i>	<i>A. Legat / D. Gomez Briceno</i>
14:50 - 15:10	7584 A. De Nicolo	7167 Y. Takabatake	7238 S. Lehrer	7542 T. Jezequel
15:10 - 15:30	7597 N. Chahboun	7264 B. Vuillemin	7465 M. Finsgar	7130 A. Krausová
15:30 - 15:50	7473 T. Mueller	7364 J.-S. Lee	7541 G. Gabetta	7283 R. Rebak
15:50 - 16:10	7638 B. Broughton	7618 A. Mendes Zimer	7093 N. Alanazi	7096 F. Ueno
16:10 - 16:30	7113 Z. Abdel Hamid	7513 A. Brenna	7058 F. van Rodijnen	7176 G. Nakayama
16:30 - 17:00	Coffee break			
	Organic Coatings	Mechanisms & Methods	Corrosion in Oil and Gas	Nuclear Corrosion
Chair(s)	<i>M.G.S. Ferreira / P. Keil</i>	<i>K. Fushimi / J. Pan</i>	<i>S. Paterson / M. Wilms</i>	<i>J. Macak / S. Uchida</i>
17:00 - 17:20	7485 S. Walkner	7783 Y. Liu	7488 B. Graver	7503 N. Diomidis
17:20 - 17:40	7493 A. Bashir	7641 M. Pichler	7205 M. Sagara	7429 R. Fako
17:40 - 18:00	7635 C. Liu		7619 M. Askari	7631 S. Necib
18:00 - 18:20	7560 G. Bouvet			7501 L. Gentaz
19:30	Departure for the Congress Gala Dinner from the Congress venue			
20:00	Congress Gala Dinner			

Programme-at-a-glance

Break for Changing Lecture Hall				
Room D	Room E	Room 4	Room 2	Room 5
Corrosion by Hot Gases	Corrosion in Aerospace	Cathodic Protection	Environment Sensitive Fracture	Polymers
<i>M. Schütze</i>	<i>T. Hack</i>	<i>J. Crouzillac</i>	<i>K. Wolski</i>	<i>J. Heinemann</i>
7756 B. Bordenet	7421 D. Carrick	7489 G. Ebell	7490 C. Evans	7660 P. Guttmann
7598 M. Mosquera	7622 I. Costa	7853 C. Calvi	7512 R. Pettersson	7072 M. Weltshev
7544 A. Potter	7536 M. Cabrini	7413 O. Knudsen	7210 C. Berne	7248 T. Schuster
7059 R. Pillai	7196 A. Bjørgum	7833 P. de Bonnafos	7074 R. Bogdanov	7820 J. Heinemann
Coffee break				
Corrosion by Hot Gases	Corrosion in Aerospace	Cathodic Protection	Environment Sensitive Fracture	Polymers
<i>M. Schütze</i>	<i>T. Hack</i>	<i>J. Crouzillac</i>	<i>C. Evans</i>	<i>J. Heinemann</i>
7781 M. Spiegel	7785 A. Zapata	7080 M. Büchler	7271 W. Huang	7250 B. Neubauer
7604 S.C. Okoro	7180 J. de Kok	7148 F. Kajiyama	7806 A. Atrens	7188 M. Lotz
7539 S.A. McCoy	7784 I. M. Medvedev	7333 T. Pérez	7391 E.F. Turcu	7251 G. Maggi
WP 3 business meeting	7577 C. Bilke-Krause	7543 E. Fleury	7446 D. Bangsgaard	7183 W. Erning
	7803 T. Ghidini	7518 M. Ormellese	7586 C. Dellabiancia	7831 L. Thiery
Lunch				
Corrosion by Hot Gases	Corrosion in Aerospace	Cathodic Protection	Environment Sensitive Fracture	Polymers
<i>M. Schütze</i>	<i>T. Hack</i>	<i>J. Crouzillac</i>	<i>A. Visser / C. Blanc</i>	<i>J. Heinemann / J.W. Erning</i>
7109 D. Young	7179 S.T. Abrahami	7834 S. Fontaine	7523D. Di Pietro	
7140 M. Schiek	7208 N. Godja	7747 H. Osvoll	7688 I. Prorior Serre	
7529 M.M. Lange	7367 A. Schindel	7694 U. Marinelli	7235 J. Sobetzki	WP 19 & WP 20
7531 C. Pascal	7616 P. Visser	7754 B. Bazzoni	7605 A. Visser	
7147 D.Q. Zhang	7263 R. Oltra	7746 J.C. Werenskiold	7829 L. Qiao	business meeting
Coffee break				
Corrosion by Hot Gases	Corrosion in Aerospace	Cathodic Protection	Environment Sensitive Fracture	
<i>M. Schütze</i>	<i>T. Hack</i>	<i>J. Crouzillac</i>	<i>K. Wolski</i>	
7561 P. Berthod	7700 D. Snihirova	7634 S. Afroukhteh	7151 K. Wolski	
7252 W. Nowak	7749 R. Noiville	7146 H. Sabri	WP 5 business meeting	
7568 P. Berthod	7131 I. Recloux			
	7292 I. Bertoli			
Departure for the Congress Gala Dinner from the Congress venue				
Congress Gala Dinner				

Programme-at-a-glance

FRIDAY, 12 SEPTEMBER 2014				
09:15 - 09:45	Cavallaro Medal Award and lecture (O-7860): M.G.S Ferreira, University of Aveiro/P			
09:45 - 10:00	Break for Changing Lecture Hall			
Rooms	Auditorium	Fermi Hall	Pacinotti Hall	Room C
	Organic Coatings	Mechanisms & Methods	CO2 Corrosion in Industrial Applications	Nuclear Corrosion
Chair(s)	<i>F. Montemor / I. De Graeve</i>	<i>J. Deconinck / G. Mori</i>	<i>R. Bäßler / A. Dugstad</i>	<i>P. Rebak / S. Lyon</i>
10:00 - 10:20	7608 I. De Graeve	7602 M. Schneider	7811 J. Kittel	7156 A. Romaine
10:20 - 10:40	7223 A. Acquesta	7142 D. Höche	7743 A. Dugstad	7603 R. Partovi-Nia
10:40 - 11:00	7669 F. Montemor	7243 J. Duchoslav	7456 S. Paul	7381 J. Agullo
11:00 - 11:20	7810 J.C.S. Fernandes	7549 S. Geary	7524 S. Lorenzi	7505 F. García Ferré
11:20 - 11:50	Coffee break			
	Organic Coatings	Mechanisms & Methods	CO2 Corrosion in Industrial Applications	Nuclear Corrosion
Chair(s)	<i>F. Montemor / I. De Graeve</i>	<i>J. Deconinck / G. Mori</i>	<i>R. Bäßler / A. Dugstad</i>	<i>D. Féron / Th. Couvant</i>
11:50 - 12:10	7452 J. Escobar	7132 J. Rodriguez	7744 B. Morland	7659 M. Rivollier
12:10 - 12:30	7547 C. Glover	7202 A. Gnedenkov	7157 O. Yevtushenko	7486 M.L. Schlegel
12:30 - 12:50	7751 C. Becker-Willinger	7477 S. Ziebermayr	EFC Task Force: CO2 corrosion business meeting	7665 J. Macák
12:50 - 13:10	7177 A. Surca Vuk	7434 O. Golenishcheva		WP 4 Poster Prize
13:10 - 13:30	7366 W. Maeng			
13:30 - 13:40	Break for Changing Lecture Hall			
13:40 - 13:50	Closing Remarks: Prof. L. Lazzari, Prof. L. Fedrizzi			
ca. 13:50	End of Scientific Programme			

Programme-at-a-glance

Break for Changing Lecture Hall			
Room D	Room E	Room 4	Room 2
Coatings for High Temperatures	Assembly: Multimaterials in Hybrid Structures	JS I: Surface and Bulk Degradation	Corrosion Education
<i>M. Galetz</i>	<i>F. Hannour / T. Hack</i>	<i>M. Keddam / P. Ponthiaux</i>	<i>A. Heyn / S. Trasatti</i>
7168 S. Madloch	7170 S. Benfer	7528 B. Normand	Keynote
7414 J. Grüters	7643 C. Molena de Assis	7532 N. Mary	7830 A. Eliezer
7115 M. Shoeib	7257 M.L. Zheludkevich	7630 T. Kosec	7062 A. Groysman
7316 S. Sohrabi	7789 T.M.L. Oltra	7798 M. Keddam	7713 G. Gabetta
Coffee break			
	Assembly: Multimaterials in Hybrid Structures	JS I: Surface and Bulk Degradation	Corrosion Education
	<i>F. Hannour / T. Hack</i>	<i>M. Keddam / P. Ponthiaux</i>	<i>A. Heyn / S. Trasatti</i>
	7786 S. Wibihal	7687 I. Proriot Serre	7709 S. Braunstein Faldini
	7640 S. Lamaka	7772 F. Pagano	7206 M. Franchi
	7415 J. Alias		WP 7 business meeting
	7198 B. Dikici		
Break for Changing Lecture Hall			
End of Scientific Programme			

Meetings

Working Party Business Meetings	Date	Time	Room
1. Corrosion and Scale Inhibition (WP1)	Wednesday 10 September	17:40-18:00	D
2. Corrosion by Hot Gases and Combustion Products (WP 3)	Thursday 11 September	12:50-13:30	D
3. Nuclear Corrosion (WP 4)	Wednesday 10 September	10:00-12:00	B
4. Environment Sensitive Fracture (WP5)	Thursday 11 September	17:20-18:20	2
5. Corrosion Mechanisms, Methods and Modelling (WP 6 & 8)	Wednesday 10 September	17:00-18:00	Fermi Hall
6. Corrosion Education (WP 7)	Friday 12 September	12:30-13:30	2
7. Marine Corrosion (WP 9)	Friday 12 September	10:00-12:00	F
8. Microbial Corrosion (WP 10)	Tuesday 9 September	18:10	5
9. Corrosion of Steel in Concrete (WP 11)	Tuesday 9 September	17:10-17:50	4
10. Corrosion in Oil & Gas Production (WP 13)	Wednesday 10 September	14:30-18:00	Pacinotti Hall
11. Coatings (WP 14)	Wednesday 10 September	17:20-18:00	Auditorium
12. Corrosion in the Refinery Industry (WP 15)	Tuesday 9 September	14:00-17:50	F
13. Cathodic Protection (WP 16)	Tuesday 9 September	14:00-16:30	B
14. Automotive Corrosion (WP 17)	Wednesday 10 September	17:20-18:00	C
16. Corrosion of Polymer Materials (WP 19)	Thursday 11 September	15:30-16:30	5
17. Corrosion & Corrosion Protection of Drinking Water Systems (WP 20)	Thursday 11 September	15:30-16:30	5
18. Corrosion of Archaeological and Historical Artefacts (WP 21)	Wednesday 10 September	17:40-18:00	E
19. Corrosion in Aerospace (WP 22)	Tuesday 9 September	16:50-17:50	3
EFC Task Force: CO ₂ -Corrosion in CCS-Applications	Friday 12 September	12:30-13:30	Pacinotti Hall

Other Meetings	Date	Time	Room
EFC STAC	Monday 8 September	09:00-13:00	D
EFC Board of Administrators	Monday 8 September	14:00-18:00	D
EFC General Assembly	Tuesday 9 September	18:00-19:30	D
International Scientific Committee EUROCORR 2015	Tuesday 9 September	12:40-14:00	D
OGP 23936 (ISO TC 67/WG 7/TG "Non metallics")	Saturday 6 September	08:00-17:00	B
OGP 23936 (ISO TC 67/WG 7/TG "Non metallics")	Sunday 7 September	08:00-12:00	B
ISO 15156 Maintenance panel	Sunday 7 September	08:00-12:00	E
Joint Meeting OGP 15156 (ISO TC 67/WG 7) + NACE TG 299 (ISO 15156 Oversight committee)	Sunday 7 September	13:30-16:30	E
OGP 15156 MA (ISO 15156 Maintenance Agency)	Sunday 7 September	16:30-17:30	E
ISO TC 67/WG 7/TG "SSC in refining"	Monday 8 September	08:00-14:00	B
NACE Working Group TG 476 "Corrosion and Corrosion Protection of Wind Power Units"	Tuesday 9 September	10:00-12:00	B
NACE European Area - Board of Trustees	Wednesday 10 September	13:10-14:00	B
EFC-NACE Task Group for NATO Standards	Wednesday 10 September		G
EFC-NACE Task Group for NATO Standards	Thursday 11 September		G

Scientific lectures Programme - Tuesday 9 September

Opening Ceremony		Auditorium
09:00		Prof. L. Lazzari, Prof. C. Mapelli, Prof. L. Fedrizzi
09:30		EFC Medal Award
		Plenary Lecture
09:45	PL-7839	"Critical" approaches to reveal corrosion mechanisms <u>H. Terry</u> , Vrije Universiteit Brussel/B
10:30		Coffee break
Metallic Coatings		Auditorium
Chairs		W. Fürbeth / M. Olivier
11:00	O-7125	Galvanizability and corrosion properties of Zn-Mg-Al hot-dip coating with shot blasting pre-treatment <u>T.C. Kim</u> , S.H. Kim, S.Y. Kim, M.S. Oh, J.S. Kim, Posco, Pohang/ROK
11:20	O-7369	Corrosion and microstructure study of new ZnAlMg galvanized steel by single dip technology <u>A. Alvarez Pampliega</u> , E. Thomas, METALogic, Heverlee/B; <u>A. Tomandl</u> , HILTI, Schaan/FL; <u>C. Masquelier</u> , J. Balduyck, T. Pinger, Galvapower Group, Hasselt/B; <u>C. Buelens</u> , METALogic, Heverlee/B
11:40	O-7411	Corrosion behaviour of ZnAlMg coatings in tropical and coastal environments <u>A. Tomandl</u> , E. Labrenz, A. Erni, Hilti AG, Schaan/FL
12:00	O-7430	The effect of Mg composition on corrosion protection of steel using PVD Zn-Mg coatings <u>J. Davies</u> , <u>G. Williams</u> , Swansea University/UK
12:20	O-7323	Influence of organic sealants on the corrosion protection of thermally sprayed ZnAl 15 coating <u>R. Feser</u> , <u>A. Mertke</u> , University of Applied Sciences Iserlohn/D
12:40		Lunch
Metallic Coatings		Auditorium
Chairs		W. Fürbeth / M. Olivier
14:00	O-7773	Zinc flake coatings vs. zinc-nickel electroplating: new trends and developments <u>H. Sahrhage</u> , M. Krumm, K. Wojczykowski, Coventya GmbH, Gütersloh/D; <u>A. Hill</u> , Coventya SAS, Paris/F

Scientific lectures Programme - Tuesday 9 September

14:20	O-7244	XPS investigations of ZnCr coated steel after corrosion load R. Steinberger, J. Duchoslav, M. Arndt, University of Linz/A; T. Steck, voestalpine Stahl GmbH, Linz/A; F. Lengwin, CEST GmbH, Wiener Neustadt/A; J. Faderl, voestalpine Stahl GmbH, Linz/A; D. Stifter, University of Linz/A
14:40	O-7399	Electrocodeposition of Al-Zn alloy by using double counter electrodes system Y. Sato, K. Azumi, Hokkaido University, Sapporo/J
15:00	O-7055	Development of aluminum magnesium alloy coating by new mist air and nitrogen cooled thermal spraying gun Y. Omori, Y. Nishiura, T. Kumai, Yoshikawa Kogyo, Himeji/J; T. Morimoto, Nakayama Amorphous, Osaka/J
15:20	O-7418	Antibacterial and protective properties of Cr/Ag nanocomposite coatings obtained by electrochemical techniques E. García-Lecina, B. García-Blanco, I. García-Urrutia, J.A. Díez, Fundación CIDETEC, Guipúzcoa/E
15:40	Coffee break	
Metallic Coatings		Auditorium
Chairs	A. Mol / R. Feser	
16:10	O-7081	Study of corrosion resistance of electroless duplex NiP/NiB coatings in different media by potentiodynamic polarisation and SEM observation V. Vitry, F. Tosar, F. Delaunois, University of Mons/B
16:30	O-7625	Friction and corrosion properties of electroless nickel nanocomposite coatings codeposited with MoS₂ or WS nanoparticles C. Zanella, M. Righetti, University of Trento/I; A. Gracco, University of Padova/I; F. Deflorian, University of Trento/I
16:50	O-7757	Corrosion resistance of laser clad 304L stainless steel surfaces enriched with ruthenium additions exposed to sulphuric acid media J.W. Van der Merwe, University of the Witwatersrand, Johannesburg/ZA; D. Tharandt, University of the Witwatersrand and Worley Parsons, Johannesburg/ZA; P.C. Masiu, University of the Witwatersrand, Johannesburg/ZA
17:10	O-7166	Anticorrosion composite coatings obtained by of plasma electrolytic oxidation S. Gnedenkov, S. Sinebryukhov, Far Eastern- Branch of Russian Academy of Sciences, Vladivostok/RUS
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs	P. Marcus / J.M.C. Mol	
11:00	KN-7153	Critical factors in corrosion and biocompatibility of biodegradable Mg alloys S. Virtanen, University of Erlangen-Nürnberg/D

Scientific lectures Programme - Tuesday 9 September

11:40	O-7070	Localised corrosion mechanisms of magnesium in methanol <u>H.N. McMurray</u> , J.E. Board, G. Williams, Swansea University/UK
12:00	O-7246	Effect of Si on formation of Fe-rich particles in pure Mg and its influence on corrosion <u>L. Yang</u> , X. Zhou, The University of Manchester/UK; S. Liang, R. Schid-Fetzer, Clausthal University of Technology/D; T. Hashimoto, H. Liu, X. Zhong, J. Robson, The University of Manchester/UK; Z. Fan, Brunel University, Uxbridge/UK; G. Scamans, Innoval Technology Ltd., Oxon/UK; G.E. Thompson, The University of Manchester/UK
12:20	O-7290	Corrosion of AZ31 Mg alloy in the presence of ammonium ion D. Buggio, <u>M. Trueba</u> , S.P. Trasatti, Università degli Studi di Milano/I
12:40 Lunch		
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs		S. Virtanen / H.N. McMurray
14:00	O-7545	The dissolution of magnesium investigated with a microelectrochemical flow system <u>L. Rossrucker</u> , Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D; N. Birbilis, Monash University, Melbourne/AUS; G.S. Frankel, Ohio State University, Columbus, OH/USA; K.J.J. Mayrhofer, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D
14:20	O-7310	Corrosion behaviour of magnesium electrodes investigated by real-time hydrogen measurement <u>M. Curioni</u> , University of Manchester/UK
14:40	O-7626	Influence of plastic deformation on the corrosion resistance of TiAl6V4 and TiMo10Zr4 alloys in aqueous solution containing chloride ions <u>H. Krawiec</u> , J. Loch, A. Lukaszczyk, AGH University of Science and Technology, Cracow/PL; V. Vignal, Université de Bourgogne, Dijon/F
15:00	O-7278	Non-uniformity of anodized titanium surface under UV-light irradiation observed by ellipso-microscopy <u>K. Fushimi</u> , K. Kurauchi, T. Nakanishi, Y. Hasegawa, M. Ueda, T. Ohtsuka, Hokkaido University, Sapporo/J
15:20	O-7578	pH at zinc and magnesium surfaces during atmospheric corrosion <u>C. Taxen</u> , Swerea-Kimab AB, Kista/S; D. Thierry, Institute de la Corrosion, Brest/F
15:40 Coffee break		

Scientific lectures Programme - Tuesday 9 September

Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs		S. Virtanen / H.N. McMurray
16:10	O-7237	The development of a mechanistic model towards the simulation of atmospheric corrosion H. Simillion, O. Dolgikh, P. Maciel, H. Terryn, J. Deconinck, Vrije Universiteit Brussel/B
16:30	O-7417	Role of pH on the L-cysteine action on zinc in 3 w/w % NaCl V. Shkirskiy, P. Volovitch, K. Ogle, CNRS - Chimie ParisTech/F; F. Leroux, T. Stimpfling, Université Blaise Pascal, Clermont-Ferrand/F; P. Keil, H. Hintze-Bruening, BASF Coatings GmbH, Münster/D
16:50	O-7478	In-situ atmospheric corrosion monitoring using resistometry K. Azumi, Hokkaido University, Sapporo/J
17:10	O-7338	Corrosion performances of plasma electrolytic oxidized implant metals and alloys S. Sinebryukhov, S.V. Gnedenkov, O.A. Khrisanfova, A.V. Puz, V.S. Egorkin, A.G. Zavidnaya, Institute of Chemistry FEB RAS, Vladivostok/RUS
17:30	O-7676	Effect of microstructure on the morphology of atmospheric corrosion pits in 304L and 316L Stainless Steel H. B. Mohammed Ali, A.J. Davenport, M.M. Attallah, University of Birmingham/UK
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs		S. Paterson / S. Shademan
11:00	O-7266	Comparison of martensitic stainless steels threshold properties in stress corrosion cracking phenomena A. Scatena, PontLab S.r.l., Pontedera/I; M. Anselmi, F. Cappuccini, D. Di Pietro, GE Oil & Gas, Firenze/I
11:20	O-7171	Effect of acetic acid on corrosion behaviour of modified martensitic stainless steels in high temperature sour environments T. Sunaba, INPEX Corporation, Tokyo/J; S. Okazaki, D. Ito, Yokohama National University/J; Y. Tomoe, S. Hirano, INPEX Corporation, Tokyo/J
11:40	O-7368	Martensite-based stainless steel OCTG of 15Cr-based and 17Cr-based material for sweet and mild sour condition Y. Ishiguro, T. Suzuki, E. Eguchi, T. Nakahashi, H. Sato, JFE Steel Corporation, Handa/J
12:00	O-7154	Hydrogen stress cracking susceptibility of super duplex stainless steel 2507 in natural sea water F. Vucko, N. Larché, D. Thierry, French Corrosion Institute, Brest/F
12:20	O-7253	Influence of thermal treatments between 650 and 850°C on the pitting corrosion behaviour of 2304 duplex stainless steel F. Zucchi, F. Zanotto, V. Grassi, M. Merlin, A. Balbo, University of Ferrara/I

Scientific lectures Programme - Tuesday 9 September

12:40		Lunch
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson / S. Shademan	
14:00	O-7805	Optimisation of the corrosion resistance of pipe butt welds in superduplex stainless steels G. Byrne, Rolled Alloys, Blackburn/UK; G. Warburton, NeoNickel, Blackburn/UK; R. Francis, RF Materials, Glossop/UK; Z. Schulz, Rolled Alloys, Temperance, MI/USA
14:20	O-7821	Stress corrosion cracking of solution annealed and cold worked UNS S31603 stainless steel in H₂S containing production environments T. Cassagne, TOTAL S.A., Pau/F; C. Duret, C. Plennevaux, Institut de la Corrosion, Fraisses/F
14:40	O-7576	Assessment of the crevice corrosion oxygen and temperature limits of CRAs for waste water injection wells M.E. Wilms, S. Fletcher, W.D. Grimes, J.P. Smit, Shell Global Solutions International BV, Amsterdam/NL; M. Klein, S. Abolghasemi, Nederlandse Aardolie Maatschappij, Assen/NL
15:00	O-7141	Failure investigation: produced water re-injection tubing and equipment H. Reese, P.I. Nice, Statoil ASA, Stavanger/N; A. Nelemans, Statoil ASA, Trondheim/N
15:20	O-7776	Galvanic effects in drilling equipment - challenges and solutions of corrosion resistance S. Kolesov, Weatherford International, St. Petersburg/RUS; R. Badrak, Weatherford International, Houston, TX/USA; V. Chizhikov, Weatherford International, St. Petersburg/RUS; A. Kharkiov, A. Alkhimenko, Saint-Petersburg State University/RUS
15:40		Coffee break
Automotive Corrosion		Room C
Chairs	F. Hannour / G. Despert	
11:00	KN-7850	Light weight technologies for innovative mobility society A. Dogan, Toyota Motor Europe/B
11:40	O-7315	Effect of welding heat on microstructure and corrosion of ferritic stainless steel 409M S.P. Ambade, Y.M. Puri, A.P. Patil, VNIT, Nagpur/IND
12:00	O-7209	Pickling process for high-strength steels before coating C. Schreiber, S. Friedrich, Institut für Korrosionsschutz Dresden GmbH/D

Scientific lectures Programme - Tuesday 9 September

12:20	O-7269	Limits of rapid heating for the press-hardening of ultra-high-strength steel from aluminum-silicon-coated blanks T. Todzy, D. Worterg, Daimler AG, Sindelfingen/D; B. Engel, University of Siegen/D; M. Weyrich, University of Stuttgart/D
12:40 Lunch		
Automotive Corrosion		Room C
Chairs	F. Hannour / G. Despert	
14:00	O-7433	Controlling and monitoring the risks of hydrogen induced stress corrosion cracking in automotive body parts R. Scharf, CEST - Kompetenzzentrum für elektrochemische Oberflächentechnologie GmbH, Moosbach/A; A. Muhr, G. Luckeneder, K.-H. Stellnberger, J. Faderl, voestalpine Stahl GmbH, Linz/A; G. Mori, Montanuniversität Leoben/A
14:20	O-7540	Crevice corrosion of hot stamping steels for the automotive industry M. Jönsson, L. Levander, Gestamp Hardtech, Luleå/S
14:40	O-7639	A century with salt spray testing; time for a final phasing-out by a replacement based on newly developed more capable test regimes M. Ström, Volvo Car Corporation, Gotheburg/S
15:00	O-7655	Analysis of perforation corrosion morphology of steel sheets for automobiles using laser displacement meters H. Kajiyama, M. Omoda, M. Kimura, JFE Steel Corporation, Kawasaki/J
15:20	O-7670	Methodology for the definition of failure assessment diagram of AHSS exposed to aggressive environments M. Beghini, L. Bertini, C. Colombo, B. Monelli, R. Valentini, University of Pisa/I
15:40 Coffee break		
Automotive Corrosion		Room C
Chairs	F. Hannour / G. Despert	
16:10	O-7193	Influence of climatic parameters in accelerated test on the corrosion and mechanical properties of automotive joined materials N. Lebozec, O. Clauzeau, D. Thierry, French Corrosion Institute, Brest/F
16:30	O-7349	Concentration effect of salt solution on the corrosion of carbon steels investigated by salt spray test H.S. Park, Y.H. Yoo, Y.K. Song, POSCO, Incheon/ROK
16:50	O-7221	Adequacy between lighter multimaterial vehicle and car body corrosion resistance P. Buttin, P.-Y. Cam, G.-A. Balmont, J. Bovin, Renault SAS, Guyancourt/F

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17:10	O-7161	The influence of Ca²⁺ in de-icing salt on the corrosion behavior of AM50 magnesium alloy <u>M.W. Grabowski</u> , AUDI AG, Ingolstadt/D and University of Erlangen-Nürnberg/D; <u>S. Virtanen</u> , University of Erlangen-Nürnberg/D; <u>D.B. Bluecher</u> , <u>M. Korte</u> , AUDI AG, Ingolstadt/D
17:30	O-7526	Study of polymer coating delamination kinetics on zinc modified with zinc oxide of different morphologies <u>D. Iqbal</u> , <u>R. Singh Moirangthem</u> , <u>A. Bashir</u> , <u>A. Erbe</u> , Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D
Corrosion and Scale Inhibition		Room D
Chairs		G. Schmitt / W. Hater
11:00	O-7114	New corrosion inhibitor for evaporative cooling systems <u>J. Matheis</u> , <u>A. Stratmann</u> , <u>W. Hater</u> , BK Giulini GmbH, Düsseldorf/D; <u>F. Wolf</u> , <u>R. Lunkenheimer</u> , BK Giulini GmbH, Ludwigshafen/D; <u>C. Foret</u> , ICL France, Vaas/F
11:20	O-7394	Corrosion inhibition of carbon steel in cooling water systems by means of chemicals used to modify heat transfer <u>O. Conejero</u> , Fundacion ITMA, Aviles/E; <u>M. Cabañas</u> , <u>J. Arancón</u> , <u>D. Carrascal</u> , ArcelorMittal Global R&D, Aviles/E
11:40	O-7169	The impact of copper chrome boron (CCB) wood preservative on the corrosion of St37 steel <u>H. Gerengi</u> , <u>C. Tasçioğlu</u> , <u>C. Akçay</u> , <u>M. Kurtaya</u> , Duzce University/TR
12:00	O-7581	Adsorption of imidazole, triazole, and tetrazole on oxidized copper surface <u>D. Peca</u> , <u>A. Kokalj</u> , Jozef Stefan Institute, Ljubljana/SLO
12:20	O-7299	Corrosion inhibition of a large evaporative cooling system <u>I. Baghni</u> , Engineering Academy Tajoura/LAR
12:40		Lunch
Corrosion and Scale Inhibition		Room D
Chairs		G. Schmitt / W. Hater
14:00	O-7289	Protection of Cu70Ni30 alloy by fatty acids <u>H. Otmacic Curkovic</u> , <u>Z. Hajdari</u> , <u>K. Marusic</u> , University of Zagreb/HR
14:20	O-7498	Inhibitor for galvanically coupled copper/steel system <u>G. Tansug</u> , <u>T. Tuken</u> , <u>G. Sigircik</u> , <u>E.S. Giray</u> , <u>M. Erbil</u> , Cukurova University, Adana/TR
14:40	O-7352	4,5-Dinitrobenzimidazole and 5-nitrobenzimidazole adsorption on copper surface. Electrochemical and XPS study <u>I. Arkhipushkin</u> , <u>D. Zhilenko</u> , Mendeleev University of Chemical Technology of Russia, Moscow/RUS; <u>L. Kazansky</u> , Institute of Physical Chemistry and Electrochemistry of RAS, Moscow/RUS

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15:00	O-7173	Probing corrosion inhibitor behaviour using micelle detection S. Rankin, E. Perfect, LUX Assure Ltd., Edinburgh/UK; M. Achour, D. Blumer, ConocoPhillips, Bartlesville, OK/USA
15:40 Coffee break		
Corrosion and Scale Inhibition		Room D
Chairs	G. Schmitt / W. Hater	
16:10	O-7255	Evaluation of environmental-friendly corrosion inhibitors vs traditional corrosion inhibitors in oil and gas industry C. Di Iorio, T. Cheldi, S. Corraera, eni e&p, San Donato M./I; E. Lo Piccolo, G. Mortali, Centro Sviluppo Materiali, Roma/I
16:30	O-7610	Effect of an amine based inhibitor on CO₂ corrosion of carbon steel G. Mori, A. Prethaler, Montanuniversität Leoben/A; E. Rosenberg, M. Rückemann, TU of Vienna/A; W. Havlik, G. Zehethofer, S. Hönig, OMV E&P GmbH, Gänserndorf/A
16:50	O-7737	Investigation of corrosion problems in cooling water pipeline S. Al Subai, A. Bairamov, Saudi Basic Industries Corporation (SABIC), Jubail/SAR
Corrosion of Archaeological and Historical Artefacts		Room E
Chairs	D. Neff	
11:00	O-7139	Corrosion of gold imitations in illuminated manuscripts M. Kouril, E. Jindrova, T. Jamborova, Institute of Chemical Technology, Prague/CZ; J. Dernovskova, National Library of the Czech Republic, Prague/CZ
11:20	O-7190	The bronze panel (paliotto) of San Moise in Venice: materials and causes of deterioration C. Chiavari, C. Martini, S. Montalbani, E. Franzoni, M.C. Bignozzi, University of Bologna/I; C. Passeri, RE.CO. Restauratoriconsorziati, Roma/I
11:40	O-7464	Single- and multiple-layer coatings for bronze statuary: preliminary study and in situ evaluation after five-year outdoor exposure B. Salvadori, E. Cantisani, C.G.R. Tognon, CNR - Institute for the Conservation and Valorization of Cultural Heritage, Florence/I; M. Nesi, Private Restorer, Florence/I; A. Cagnini, M. Galeotti, S. Porcinai, Opificio delle Pietre Dure, Florence/I
12:00	O-7259	In-situ EIS characterization of outdoor corrosion behaviour of bronze and gilded bronze A. Balbo, M. Abbottoni, Ferrara University/I; C. Chiavari, C. Martini, E. Bernardi, Bologna University/I; C. Monticelli, Ferrara University/I

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12:20	O-7197	Staining of bronze sculptures, determining the causes <u>A.R. Moreira</u> , IPT Institute for Technological Research, Sao Paulo/BR; K. Barbosa, MASP Museu de Arte de São Paulo/BR; N.L. Almeida, Z. Panossian, IPT Institute for Technological Research, Sao Paulo/BR
12:40 Lunch		
Corrosion of Archaeological and Historical Artefacts		Room E
Chairs	D. Neff	
14:00	O-7382	The role of microstructure on initial corrosion and metal release of Cu-Zn alloys in a chloride-containing laboratory atmosphere X. Zhang, I. Odnevall Wallinder, <u>C. Leygraf</u> , KTH Royal Institute of Technology, Stockholm/S
14:20	O-7192	Atmospheric corrosion of fire gilded bronze: accelerated ageing in runoff conditions <u>C. Chiavari</u> , C. Martini, E. Bernardi, S. Raffo, University of Bologna/I; A. Balbo, M. Abbottoni, University of Ferrara/I; M.C. Bignozzi, University of Bologna/I; C. Monticelli, University of Ferrara/I
14:40	O-7311	Dating copper-based archaeological materials using the voltammetry of microparticles <u>A. Doménech</u> , University of Valencia, Burjassot/E; S. Capelo, University of Évora/P; T. Doménech, Institute of Restoration of Cultural Heritage, Valencia/E
15:00	O-7425	Prediction of long-term corrosion rate of copper alloy objects <u>K. Kreislova</u> , SVUOM Ltd., Prague/CZ; H. Geiplova, UTAM, Telc/CZ
15:20	O-7787	A multi-technique approach for characterizing patina formed on the surface of brass used for musical instrument of the XIX century F. Cocco, M. Fantauzzi, Università di Cagliari/I; G. Peschke, <u>B. Elsener</u> , ETH Zurich/CH; A. Rossi, Università di Cagliari/I
15:40 Coffee break		
Corrosion of Archaeological and Historical Artefacts		Room E
Chairs	D. Neff	
16:10	O-7186	In situ study of long term atmospheric corrosion of iron by μRaman spectroscopy <u>M. Bouchar</u> , D. Neff, CEA, Gif sur Yvette/F; J.P. Gallien, CEA and CNRS, Gif sur Yvette/F; P. Dillmann, CNRS, Gif sur Yvette/F
16:30	O-7474	An integrated EIS-Raman approach to study the corrosion mechanism of iron artefacts <u>S. Grassini</u> , Politecnico di Torino/I; M. Bouchar, CNRS, Gif-sur-Yvette/F; E. Angelini, M. Parvis, Politecnico di Torino/I; D. Neff, P. Dillmann, CNRS, Gif-sur-Yvette/F

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16:50	O-7594	Study of iron sulphides origin in archeological artefacts by determination of sulphur isotopic ratio S. Grousset, F. Mercier, CEA/CNRS, Gif-sur-Yvette/F; A. Dauzeres, IRSN, Fontenay aux Roses/F; D. Crusset, ANDRA, Châtenay-Malabry/F; L. Raimbault, MINES ParisTech, Fontainebleau/F; A. Galtayries, Chimie ParisTech/F; J-P. Gallien, P. Dillmann, D. Neff, CEA/CNRS, Gif-sur-Yvette/F
17:10	O-7136	Study of archaeological ferrous objects in sulfide-containing media J.A. Bourdoiseau, M. Jeannin, R. Sabot, C. Remazeilles, Ph. Refait, University of La Rochelle/F
17:30	O-7651	Study of the role of ammonium ions on the corrosion of copper in sulphate containing media H. de Melo, D.F. Abrahao, Sao Paulo University/BR
Corrosion of Steel in Concrete		Room 4
Chairs	M. Raupach / C. Helm	
11:00	O-7200	Long-term survival of reinforced concrete structures in marine environments R. Melchers, I. Chaves, The University of Newcastle/AUS
11:20	O-7261	Corrosion behaviour of steel in fly-ash geopolymer mortars exposed to chloride solutions C. Monticelli, M. Abbottoni, Ferrara University/I; S. Manzi, C. Chiavari, Bologna University/I; A. Balbo, F. Zanotto, Ferrara University/I; M.E. Natali, M.C. Bignozzi, Bologna University/I
11:40	O-7437	Study of reinforcing bar corrosion in solution simulating bacteria metabolites M. Stefanoni, E. Volpi, S.P. Trasatti, University of Milan/I
12:00	O-7551	Investigations of chloride diffusion for reinforced geopolymer mortar C. Monticelli, M. Abbottoni, University of Ferrara/I; S. Manzi, C. Chiavari, University of Bologna/I; A. Balbo, F. Zanotto, University of Ferrara/I; M.E. Natali, M.C. Bignozzi, University of Bologna/I
12:20	O-7550	Chloride threshold level for steel in concrete - rebar polarisation effects M. Kosalla, M. Raupach, RWTH Aachen/D
12:40	Lunch	
Corrosion of Steel in Concrete		Room 4
Chairs	M. Raupach / C. Helm	
14:00	O-7060	A critical analysis of proposed test methods for measuring the chloride threshold value in reinforced concrete U. Angst, B. Elsener, ETH Zurich/CH

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14:20	O-7260	Chloride threshold for corrosion initiation in reinforced concrete: the applicability of Ag/AgCl sensors revisited F. Pargar, D.A. Koleva, P. Taheri, J.M.C. Mol, E.A.B. Koenders, K. van Breugel, Technology University of Delft/NL
15:00	O-7553	Effect of concrete pore solution composition on the electrochemical behaviour of C15 steel reinforcement S. Chakri, E. Sutter, B. Tribollet, V. Vivier, I. Frateur, Université Pierre et Marie Curie, Paris/F
15:20	O-7624	Potentiostatic evaluation of the critical chloride threshold of 1.4362 stainless steel in concrete with mixed-in chloride M. Gastaldi, F. Lollini, L. Bertolini, Politecnico di Milano/I
15:40 Coffee break		
Corrosion of Steel in Concrete		Room 4
Chairs		M. Raupach / C. Helm
16:10	O-7207	Investigation of chloride-induced pitting corrosion of steel in concrete by a combination of electrochemical methods with X-ray tomography G. Ebell, J. Mietz, A. Burkert, BAM Federal Institute for Materials Research and Testing, Berlin/D
16:30	O-7546	Geo-polymeric and cementitious mortars with the same strength class: corrosion behaviour of steel and galvanized steel reinforcements T. Bellezze, A. Mobili, G. Roventi, F. Tittarelli, Polytechnic University of Marche, Ancona/I
16:50	O-7314	Stress corrosion cracking behaviour of the prestressing steel: influence of steel microstructure I. Pepenar, ICECON GROUP, Bucharest/RO
17:10		WP 11 business meeting
WS: Corrosion Reliability of Electronics Devices		Room 2
Chairs		R. Ambat / H. Schweigart
11:00	O-7822	Perspectives on the climatic reliability issues of electronic devices R. Ambat, TU of Denmark, Kgs. Lyngby/DK
11:20	O-7819	Brief introduction to the mechanism of electrochemical migration H. Schweigart, Zestron Europe, Ingolstadt/D
11:40	O-7818	Influence of the printed circuit board design on electrochemical migration and surface insulation M. Nowotnick, Universität Rostock/D; S. Mattern, Robert Bosch GmbH, Stuttgart/D

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12:00	O-7447	Electrochemical migration in electronics: effect of contamination and bias conditions <u>V. Verdingovas</u> , M.S. Jellesen, O-R. Ambat, TU of Denmark, Lyngby/DK
12:20	O-7082	Contamination profile of printed circuit board assemblies in relation to soldering types and conformal coating <u>H. Conseil</u> , M.S. Jellesen, R. Ambat, Technical University of Denmark, Lyngby/DK
12:40 Lunch		
WS: Corrosion Reliability of Electronics Devices		Room 2
Chairs		R. Ambat / H. Schweigart
14:00	O-7495	Corrosion reliability of electronics: the influence of solder temperature on the decomposition of flux activators <u>K. Piotrowska</u> , H. Conseil, M.S. Jellesen, R. Ambat, TU of Denmark, Lyngby/DK
14:20	O-7227	Cleaning in electronics: understanding Today's needs <u>J. Cetier</u> , P.J. Duchi, Inventec, Yverdon Les Bains/CH; A.M. Laugt, Inventec, Vincennes/F
14:40	O-7225	Solder paste residue corrosivity assessment: Bono test <u>J. Cetier</u> , C. Puechagut, A.M. Laugt, E. Guene, R. Anisko, Inventec, Vincennes/F
15:00	O-7426	Corrosion in electronics: overview of failures and countermeasures <u>M.S. Jellesen</u> , V. Verdingovas, H. Conseil, R. Ambat, TU of Denmark, Lyngby/DK
15:20	O-7521	Salt spray corrosion test methods - an overview A.B. Kentved, <u>K.A. Schmidt</u> , DELTA, Danish Electronics, Light & Acoustics, Hoersholm/DK
15:40 Coffee break		
WS: Corrosion Reliability of Electronics Devices		Room 2
Chairs		R. Ambat / H. Schweigart
16:10	O-7203	An on-site atmospheric-corrosion sensor <u>R. Minamitani</u> , Hitachi Ltd., Ibaraki/J
16:30	O-7824	Environmental stress corrosion of polybutylenterephthalate: a common material for electronic housings G. Klett, M. Fürtsch, A. Hachtel, <u>L. Müller</u> , Robert Bosch GmbH, Reutlingen/D
16:50	O-7236	The effect of a post-electroplating electrochemical oxidation treatment on whisker formation from tin coatings <u>M.A. Ashworth</u> , D. Haspel, L. Wu, G.D. Wilcox, R.J. Mortimer, Loughborough University/UK

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17:10	O-7403	Tin electrodeposits produced using non-aqueous ionic liquid electrolytes: whisker formation <u>C.J. Stuttle</u> , M.A. Ashworth, G.D. Wilcox, R.J. Mortimer, Loughborough University/UK
17:30	O-7823	Basic physics of moisture challenges in electronic packaging - a tutorial overview <u>J. Jacobsen</u> , A. Holm, J.P. Krog, L. Rimestad, A. Riis, Grundfos A/S, Bjerringbro/DK
Microbial Corrosion		Room 5
Chairs		P. Cristiani / R. Basseguy
11:00	KN-7848	Role of green rusts in corrosion and biocorrosion of carbon steel in marine environment <u>P. Refait</u> , R. Sabot, M. Jeannin, UMR 7356 CNRS-University La Rochelle/F; S. Sable, I. Lanneluc, UMR 7266 CNRS-University La Rochelle/F
11:40	O-7623	Microbial corrosion of steel in argillite: complementarity of surface characterization (μRamanS and FESEM) and of microbiological approach F. Mercier-Bion, Y. Léon, CNRS, Gif-sur-Yvette/F; D. Neff, CEA, Gif-sur-Yvette/F; C. Wittebroodt, IRSN, Fontenay-aux-Roses/F; L. Urios, University of Pau/F; A. Perez, CNRS, Gif-sur-Yvette/F; F. Marsal, M. Flachet, IRSN, Fontenay-aux-Roses/F; M. Magot, University of Pau/F; J.P. Gallien, CEA, Gif-sur-Yvette/F; Ph. Dillmann, CNRS, Gif-sur-Yvette/F
12:00	O-7794	Evaluation of pH under-deposit using the dual-cell technique in flow conditions - The case of CuNi 70:30 in high bacteria contaminated fresh <u>M. Carvalho</u> , RSE SpA, Milano/I; E. Guerrini, S. Trasatti, Università degli Studi di Milano/I; P. Cristiani, RSE SpA, Milano/I; M. Urquidi-Macdonald, KFUPM, Dhahran/SAR
12:20	O-7353	Electrochemical corrosion behavior of carbon steel exposed to low concentration agar with and without nutrients <u>A. Spark</u> , RMIT University, Melbourne/AUS and CSIRO, Melbourne/AUS; L. Ward, RMIT University, Melbourne/AUS; I. Cole, D. Marney, CSIRO, Melbourne/AUS; D. Law, RMIT University, Melbourne/AUS
12:40		Lunch
Microbial Corrosion		Room 5
Chairs		P. Cristiani / R. Basseguy
14:00	O-7384	Influence of Fe-S clusters of hydrogenase on mild steel corrosion <u>I. Rouvre</u> , INP-ENSIACET, Toulouse/F; C. Gauquelin, I. Meynial-Salles, INSA, Toulouse/F; R. Basseguy, CNRS-ENSIACET, Toulouse/F
14:20	O-7077	Outer membrane associated redox active components in lithotrophic SRB trigger direct electron transfer during anaerobic electrical MIC <u>P. Beese-Vasbender</u> , Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D; J. Garrelfs, Max-Planck-Institut für Marine Mikrobiologie, Bremen/D; S. Nayak, A. Erbe, K.J.J. Mayrhofer, M. Stratmann, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D; F. Widdel, Max-Planck-Institut für Marine Mikrobiologie, Bremen/D

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14:40	O-7703	Biofilm impact on the stainless steel passive film A. Allion, Aperam Isbergues Research Center/F; S. Zanna, A. Seyeux, Chimie ParisTech/F; M.-H. Berger, MINES-ParisTech, Evry/F; P. Marcus, Chimie ParisTech/F
15:00	O-7084	Experimental study of wear and corrosion interaction in steel chains under working conditions A. Lotfollahi Yaghin, R.E. Melchers, University of Newcastle/AUS
15:20	O-7533	A microelectrodes study for anaerobiosis profiles in biofilms E. Guerrini, Università degli Studi di Milano/I; M. Grattieri, Politecnico di Milano/I; P. Cristiani, Ricerca sul Sistema Energetico s.p.a., Milan/I; S.P.M. Trasatti, Università degli Studi di Milano/I
15:40 Coffee break		
Microbial Corrosion		Room 5
Chairs		P. Cristiani / R. Basseguy
16:10	O-7199	Long-term corrosion of steels and steel piling in seawaters with elevated nutrient concentration R. Melchers, R. Jeffrey, The University of Newcastle/AUS
16:30	O-7229	Introducing a corrosion management approach to MIC assessment, control and monitoring in the oil and gas industry T.L. Skovhus, H.E. Berge, DNV GL AS, Bergen/N; R. Eckert, G. Koch, DNV GL AS, Dublin, OH/USA
16:50	O-7613	A numerical model for copper biocorrosion D. Fischer, C. Galarce, M. Walczak, G. Pizarro, I. Vargas, Pontificia Universidad Católica de Chile, Santiago/RCH
17:10	O-7846	Corrosion behaviour of titanium in the presence of Streptococcus Sanguinis Y. Fei, A. Davenport, O. Addison, University of Birmingham/UK
17:30	O-7334	Effect of marine Pseudoalteromonas sp. on the microstructure and corrosion behaviour of 2205 Duplex stainless steel M. Moradi, Z. Song, Ningbo Institute of Materials Technology and Engineering/CHN
17:50	O-7683	Influence of sterilization methods on corrosion behavior of stainless steel in simulated cooling water containing sulfate reducing bacteria H. Ge, X. Wang, M. Zhang, X. Meng, Shanghai University of Electric Power/CHN
18:10		WP 10 business meeting

Scientific lectures Programme - Tuesday 9 September

		WS: Means of Prevention and Recovery against Decay/ Deterioration of Valuable Building and Urban Decoration	Room 3
Chairs		P.L. Bonora	
11:00	O-7835	Research activity for the restoration and maintenance of the Pisan art objects at the University of Pisa A. Andreotti, I. Bonoduce, V. Castelvetro, Università di Pisa/I; <u>F. Ciardelli</u> , Università di Pisa and SPIN-PET s.r.l., Pontedera/I; M.P. Colombini, Università di Pisa and ICVBC-CNR, Firenze/I	
11:20	O-7828	World War One fortresses and artifacts in Trento area: from historical corrosion to a durable maintenance work <u>F. Meneghelli</u> , Soprintendenza per i Beni architettonici e archeologici della Provincia Autonoma di Trento, Isola della Scala (VR)/I	
11:40	O-7807	Cutting-edge technologies for the renewal of historical buildings the thirty-year experience gained in restoring the painted facades <u>G. Di Tanna</u> , Boero Group spa, Genova/I; G. Bozzo, Aitiva, Genova/I	
12:00	O-7816	Genoa's elevated highway (Soprelevata) : 1964 -1984 -2014 - a successful maintenance project <u>P.L. Bonora</u> , University of Trento/I	
12:20	O-7812	More than 20 years of proven durability of fluorinated architectural coatings onto concrete; 1992/2014 Genoa's Aquarium case <u>A. Locaspi</u> , Innoventions srl, Cinisello Balsamo/I	
12:40 Lunch			
		WS: Means of Prevention and Recovery against Decay/ Deterioration of Valuable Building and Urban Decoration	Room 3
Chairs		P.L. Bonora	
14:00	O-7450	The effect of soiling and oxidation on architectural titanium M.V. Diamanti, <u>M.P. Peddeferri</u> , Politecnico di Milano/I	
14:20	O-7849	Study of protective coatings for outdoor bronzes by means of in situ electrochemical techniques <u>A. Colombo</u> , Università degli Studi di Milano/I; S. Goidanich, E. Guerrini, Politecnico di Milano/I; S. Porcinai, A. Cagnini, M. Galeotti, Laboratorio Scientifico Opificio delle Pietre Dure, Florence/I; B. Salvadori, ICVBC-CNR, Florence/I; A. Vicenzo, Politecnico di Milano/I; L. Brambilla, Haute Ecole Arc Conservation-Restauration, Neuchâtel/CH; L. Rosetti, Politecnico di Milano/I; S. Trasatti, Università degli Studi di Milano/I	
14:40	O-7782	Corrosion resistance of anticorrosive film formed on Mg alloy by steam coating <u>T. Ishizaki</u> , N. Kamiyama, Shibaura Institute of Technology, Tokyo/J	
16:50		WP 22 business meeting	

Scientific lectures Programme - **Wednesday 10 September**

		Plenary Lecture	Auditorium
09:00	PL-7838	From the object scale to the nanometer : issues linked with corrosion of archaeological ferrous artefacts <u>P. Dillmann</u> , Commissariat a L'Energie Atomique (CEA), Gif-sur-Yvette/F	
09:45		Break for Changing Lecture Hall	
		Pretreatments	Auditorium
Chairs		I.V. Aoki / M. Zheludkevich	
10:00	O-7302	Anti-corrosive conversion coating on aluminium alloys using high temperature steam with incorporated chemistries <u>R. Din</u> , M.S. Jellesen, R. Ambat, TU of Denmark (DTU), Kongens Lyngby/DK	
10:20	O-7725	Comparative study between conventional tests and ACET technique for powder coatings used on steel with different phosphate pretreatments J. Molina, J. Suay, University Jaume I, Castellon de la Plana/E; <u>J. Gracenea</u> , MEDCO SL, Castellon de la Plana/E	
10:40	O-7752	The role of surface modification by phosphating in corrosion protection of sintered Nd-Fe-B magnets <u>E. Isotahdon</u> , E. Huttunen-Saarivirta, V.-T. Kuokkala, Tampere University of Technology/FIN	
11:00	O-7262	Investigation of under film corrosion using pH sensitive microcapsules <u>T. Matsuda</u> , K. Kashi, North Dakota State University, Fargo, ND/USA; M. Jensen, Concordia College, Moorhead, MN/USA; V. Gelling, North Dakota State University, Fargo, ND/USA	
11:20	Coffee break		
		Self-healing Coatings	Auditorium
Chairs		I.V. Aoki / M. Zheludkevich	
11:50	O-7287	Highly ordered mesoporous silica loaded with dodecylamine for active anticorrosion coatings J.M. Falcón, T. Sawczen, <u>I.V. Aoki</u> , University of São Paulo/BR	
12:10	O-7187	Self healing organic coatings on aluminium alloy A. Firouzi, A. Bianco, <u>G. Montesperelli</u> , University of Rome Tor Vergata/I	
12:30	O-7522	Assessment of corrosion performances of cerium based silane-zeolite coatings on AA6061 substrate L. Bonaccorsi, <u>L. Calabrese</u> , A. Capri, G. Gulli, E. Proverbio, University of Messina/I	

Scientific lectures Programme - Wednesday 10 September

12:50	O-7412	Numerical modelling as a tool for the design of self-healing dispersion coatings M. Walczak, Pontificia Universidad Católica de Chile, Santiago/RCH
13:10 Lunch		
Self-healing Coatings		Auditorium
Chairs		L.M. Calle / H. Terryn
14:30	O-7379	L-cysteine intercalated layered double hydroxide as anticorrosive agent for organic coatings T. Stimpfling, Blaise Pascal University, Aubiere/F; H. Hintze-Bruening, P. Keil, H. Theil, BASF Coatings, Münster/D; F. Leroux, Blaise Pascal University, Aubiere/F
14:50	O-7185	Micro-electrochemical study of organic corrosion inhibitors for AA2024 F. Andreatta, University of Udine/I; I. Recloux, University of Mons/B; L. Paussa, University of Udine/I; M. Mouanga, M. Olivier, University of Mons/B; L. Fedrizzi, University of Udine/I
15:10	O-7585	Coating self-healing effect by loading microcapsules with two-component epoxy film former F. Cotting, I.V. Aoki, University of São Paulo/BR
15:30	O-7282	Non-destructive in-situ characterization of microcapsules and self-healing coatings using confocal Raman spectroscopy A. Lutz, I. De Graeve, H. Terryn, Vrije Universiteit Brussel/B
15:50	O-7195	Recent developments on microencapsulation for autonomous corrosion protection L.M. Calle, NASA, Kennedy Space Center, FL/USA; W. Li, J.W. Buhrow, L. Fitzpatrick, S.T. Jolley, J.M. Surma, ESC-QNA, Kennedy Space Center, FL/USA; B.P. Pearman, X. Zhang, NASA, Kennedy Space Center, FL/USA
16:10 Coffee break		
Self-healing Coatings		Auditorium
Chairs		L.M. Calle / H. Terryn
16:40	O-7145	Development of self healing polymer coatings on metals A. Lutz, I. De Graeve, H. Terryn, Vrije Universiteit Brussel/B
17:00	O-7228	Design and analysis of multi-layer self-healing coatings tailored for smart corrosion protection T. Tran, A. Vimalanandan, Max-Planck Institut für Eisenforschung GmbH, Düsseldorf/D; J. Fickert, K. Landfester, D. Crespy, Max-Planck Institut für Polymerforschung, Mainz/D; M. Rohwerder, Max-Planck Institut für Eisenforschung GmbH, Düsseldorf/D
17:20		WP 14 business meeting

Scientific lectures Programme - Wednesday 10 September

		Corrosion Mechanisms, Methods and Modelling	Fermi Hall
Chairs		J.M.C. Mol / F. Deflorian	
10:00	O-7211	Nanostructure and local properties of oxide layers grown in simulated pressurized water reactor environment <u>V. Maurice</u> , T. Massoud, L.H. Klein, A. Seyeux, P. Marcus, CNRS - Chimie ParisTech/F	
10:20	O-7158	About point defects formation in Cr₂O₃ passive films <u>B. Malki</u> , Simorg System, Grenoble/F; A. Pasturel, B. Baroux, SIMAP, Grenoble/F	
10:40	O-7213	Kelvin probe force microscopy and atmospheric corrosion of cold-rolled grade 2205 duplex stainless steel <u>C. Örnek</u> , D. Engelberg, University of Manchester/UK	
11:00	O-7275	Relative humidity for onsets of pitting corrosion and repassivation of stainless steels under wet-dry cyclic conditions containing chloride <u>A. Nishikata</u> , H. Nakamura, T. Nam, E. Tada, Tokyo Institute of Technology/J	
11:20		Coffee break	
		Corrosion Mechanisms, Methods and Modelling	Fermi Hall
Chairs		J.M.C. Mol / F. Deflorian	
11:50	KN-7695	Application of time-of-flight secondary ions mass spectrometry (ToF-SIMS) to corrosion research <u>P. Marcus</u> , A. Seyeux, Chimie ParisTech/F	
12:30	O-7572	Electrochemical AFM study of corrosion behavior of a 2507 super duplex stainless steel: influence of precipitated chromium nitrides E. Bettini, U. Kivisäkk, Sandvik Materials Technology/S; C. Leygraf, <u>J. Pan</u> , Royal Institute of Technology, Stockholm/S	
12:50	O-7455	Influence of heat treatment on corrosion resistance of martensitic stainless steels 1.4034 and 1.4021 P. Rosemann, <u>M. Babutzka</u> , A. Heyn, T. Halle, University of Magdeburg/D	
13:10		Lunch	
		Corrosion Mechanisms, Methods and Modelling	Fermi Hall
Chairs		V. Maurice / H. Krawiec	
14:30	O-7506	Stress corrosion cracking at room temperature of austenitic stainless steels in marine areas: the case of fixed guards for climbing <u>F. Deflorian</u> , University of Trento/I; M. Dalvit, S. Rossi, C. Zanella, M. Fedel, Università di Trento/I	

Scientific lectures Programme - Wednesday 10 September

14:50	O-7480	Passivity and corrosion behavior of duplex stainless steels after various surface preparations <u>V. Vignal</u> , CNRS, Dijon/F; H. Krawiec, AGH University of Science and Technology, Krakow/PL; S. Le Manchet, Industeel, Le Creusot/F
15:10	O-7499	Stable and metastable pitting corrosion susceptibilities from physical properties of passive films <u>B. Ter-Ovanesian</u> , B. Normand, Université de Lyon, Villeurbanne/F
15:30	O-7217	Chemical composition and nanostructure of passive films formed on FeCrNiMo austenitic stainless steel H. Peng, V. Maurice, L.H. Klein, A. Seyeux, S. Zanna, P. Marcus, CNRS - Chimie ParisTech/F
15:50	O-7138	Polarization behaviour of new aluminium alloys (AA2139 and AA2198) in neutral media <u>A. Balbo</u> , V. Grassi, A. Frignani, F. Zucchi, University of Ferrara/I
16:10	Coffee break	
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs	P. Marcus / J.M.C. Mol	
16:40	O-7245	Mechanisms of scale dissolution on non-alloyed and silicon-alloyed steels A. Alaoui Mouayd, <u>E. Sutter</u> , B. Tribollet, University Pierre et Marie Curie, Paris/F; A. Koltsov, ArcelorMittal, Maizières-les-Metz/F
17:00		WP 6 & 8 business meeting
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson / M. Achour	
10:00	O-7226	In-situ surface strain mapping of pitting corrosion in a high strength carbon steel <u>P. Barnes</u> , Intertek, Manchester/UK; S.B. Lyon, D.L. Engelberg, The University of Manchester/UK
10:20	O-7233	Sour corrosion - investigation of iron sulfide layer growth in saturated H₂S solutions <u>G. Genchev</u> , K. Cox, A. Sarfraz, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D; C. Bosch, M. Spiegel, Salzgitter Mannesmann Forschung GmbH, Duisburg/D; A. Erbe, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D

Scientific lectures Programme - Wednesday 10 September

10:40	O-7095	Electrochemical noise analysis on modified 13%Cr stainless steels in sour environments under stress <u>M. Sakairi</u> , J. Tatehara, Y. Mizukami, Hokkaido University, Sapporo/J; S. Hashizume, TenarisNKK Tubes, Kawasaki/J
11:00	O-7106	Localised corrosion attack of pipeline steel associated with weldments in CO₂ containing environments <u>A. Abdurrahim</u> , National Oil Corporation, Tripoli/LAR
11:20 Coffee break		
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson / M. Achour	
11:50	O-7100	Pipeline pigging and CP specialised electrical surveys: a unique integral strategy for pipeline integrity L. Di Biase, <u>O. Fumei</u> , ISPRONA Services & Consulting, Rome/I; G. Fumei, New York University, NY/USA
12:10	O-7472	Electrochemical properties of iron sulphide in weak acid systems <u>M. Tjelta</u> , J. Kvarekvål, Institute for Energy Technology (IFE), Kjeller/N
12:30	O-7724	Cl-SCC attack in SS 316L branch connection welding <u>M. Al-Hammad</u> , Saudi Aramco, Udailiyah/SAR
12:50	O-7563	Pittings occurrence in coupons of weight loss for corrosion monitoring in pipelines <u>N. Almeida</u> , IPT, São Paulo/BR; L. Tiroel, Petrobras Transportes S. A., São Paulo/BR; V. Ferrari, IPT, São Paulo/BR; R. Moraes, Petrobras Transportes S.A., São Paulo/BR
13:10 Lunch		
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson	
14:30		WP 13 business meeting
16:10 Coffee break		
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson	
16:40		WP 13 business meeting

Scientific lectures Programme - Wednesday 10 September

Automotive Corrosion		Room C
Chairs		F. Hannour / G. Despert
10:00	KN-7851	Surface engineering for bipolar plate design dedicated to transportation application <u>B. Normand</u> , Insa, Lyon/F
10:40	O-7224	Investigation on the effect of impurities on the corrosion behaviour of various A356 alloy A. Niklas, R. González-Martínez, A.I. Fernández-Calvo, <u>S. Mendez</u> , IK4-AZTERLAN, Durango/E; A. Conde, J.J. de Arenas, J.J. de Damborenea, CENIM, Madrid/E
11:00	O-7385	Effect of experimental parameters on AA6xxx intergranular corrosion during immersion in acidified NaCl solutions (ISO11846) <u>L. Peguet</u> , E. Chassagnolle, R. Bergeron, A. Afseth, Constellium Research Centre, Voreppe/F
11:20	Coffee break	
Automotive Corrosion		Room C
Chairs		F. Hannour / G. Despert
11:50	O-7511	The effect of surface conditioning on the deposition of Zr-based conversion coatings on aluminium alloys <u>J. Cerezo</u> , P. Taheri, Delft University of Technology/NL; I. Vandendael, Vrije Universiteit Brussel/B; R. Posner, Henkel AG & Co. KGaA, Düsseldorf/D; J.H.W. de Wit, J.M.C. Mol, Delft University of Technology/NL; H. Terryn, Vrije Universiteit Brussel/B
12:10	O-7614	Effect of Sr and Ti addition on the corrosion behavior of Al-7Si-0.3Mg alloy M. Uludag, Selcuk University, Konya/TR; <u>M. Kocabas</u> , Yildiz Technical University, Istanbul/TR; D. Dispinar, Istanbul University/TR; R. Çetin, Selcuk University, Konya/TR; N. Cansever, Yildiz Technical University, Istanbul/TR
12:30	O-7482	Electrochemical profiling of multi-clad aluminium sheets used in automotive heat exchangers <u>K. Bordo</u> , R. Ambat, TU of Denmark, Lyngby/DK; L. Peguet, A. Afseth, Constellium Research Centre, Voreppe/F
12:50	O-7152	Investigation by electrochemical impedance spectroscopy of filiform corrosion of electrocoated steel substrates <u>A.-P. Romano</u> , M.-G. Olivier, University of Mons/B
13:10	Lunch	

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Automotive Corrosion		Room C
Chairs		F. Hannour / G. Despert
14:30	O-7460	Influence of water, chloride, sulphate and acetic acid on corrosion behavior of aluminum materials in ethanol-containing fuels R. Reitz, G. Andersohn, M. Oechsner, <u>O. Golenishcheva</u> , TU Darmstadt/D
14:50	O-7481	Time-dependent corrosion and layer formation reactions of EN AC-AISI10Mg in coolants for combustion engines under various boiling conditions T. Duchardt, G. Andersohn, M. Oechsner, <u>U. Depner-Miller</u> , TU Darmstadt/D
15:10	O-7327	The impact of condensates containing sulphate and chloride on automotive exhaust systems R. Hashimoto, <u>G. Mori</u> , University of Leoben/A; D. Knoll, U. Tröger, H. Wieser, Faurecia Emission Control Technologies, Augsburg/D
15:30	O-7383	High-temperature corrosion of materials for cast exhaust-components <u>M. Ekström</u> , Royal Institute of Technology, Stockholm/S; B. Zhu, Scania CV AB, Södertälje/S; P. Szakalos, S. Jonsson, Royal Institute of Technology, Stockholm/S
15:50	O-7678	Role of corrosion products in corrosion mechanisms of Zn(Mg)(Al) coatings on steel <u>P. Volovitch</u> , Chimie ParisTech/F; M. Salguero Azevedo, Chimie ParisTech/F and Arcelor Mittal Research SA, Maizières lès Metz/F; J.D. Yoo, Chimie ParisTech/F; C. Allely, ArcelorMittal Research SA, Maizières lès Metz/F; C. Ogle, Chimie ParisTech/F
16:10	Coffee break	
Automotive Corrosion		Room C
Chairs		F. Hannour / G. Despert
16:40	O-7497	Influence of corrosion on fatigue behaviour for automotive exhaust systems U. Tröger, <u>D. Knoll</u> , H. Wieser, Faurecia Emission Control Technologies, Augsburg/D; K. Duru, F. Haider, University of Augsburg/D
17:00	O-7854	Investigation on galvanic effect in automotive body corrosion E. Szala, A. Dogan, Toyota Motor Europe, Zaventem/B, F. Hannour, Tata Steel Research and Development, Ijmuiden/NL
17:20		WP 17 business meeting

Scientific lectures Programme - Wednesday 10 September

Corrosion and Scale Inhibition		Room D
Chairs		G. Schmitt / B. Bavarian
10:00	KN-7108	Comparison of the corrosion protection effectiveness of vapor corrosion inhibitor and nitrogen blanketing system B. Bavarian, J. Zhang, K. Lu, L. Reiner, California State University, Northridge, CA/USA
10:40	O-7815	Questioning the use of volatile corrosion inhibitors in polymer foils - a comparative study on corrosion protection capabilities L. Igetoft, C. Mille, S. Arnell, ABB Corporate Research, Västerås/S
11:00	O-7658	On the irreversibility of adsorption of volatile corrosion inhibitors and protection of metals against atmospheric corrosion O.A. Goncharova, Yu.I. Kuznetsov, E.A. Nad'kina, IPCE RAS, Moscow/RUS
11:20 Coffee break		
Corrosion and Scale Inhibition		Room D
Chairs		G. Schmitt / B. Bavarian
11:50	O-7587	Inhibition efficiencies to adsorption thermodynamics: discussing the value of such measurements R. Lindsay, C. Ruiz-Camargo, M.S. Walczak, University of Manchester/UK
12:10	O-7736	Mitigation of flow induced localized corrosion with inhibitors G. Schmitt, IFINKOR - Institute for Maintenance and Corrosion protection Technologies n.f.p.Ltd., Iserlohn/D
12:30	O-7303	Experimental and theoretical evaluation of strawberry fruit extract and its active component as corrosion inhibitor for mild steel in HCl S. Umoren, King Fahd University of Petroleum and Minerals, Dhahran/SAR
12:50	O-7307	Methodology of laboratory assessment of the efficiency of carbon dioxide corrosion inhibitors in oilfield pipelines N. Andreev, I.S. Sivokon, S.S. Vesely, A.N. Frumkin Institute of Physical Chemistry and Electrochemistry, Moscow/RUS
13:10 Lunch		
Corrosion and Scale Inhibition		Room D
Chairs		G. Schmitt / B. Bavarian
14:30	O-7438	Evaluation of two imidazole derivatives as possible green corrosion inhibitors for mild steel: comparison of simulation with experiment I. Obot, King Fahd University of Petroleum and Minerals, Dhahran/SAR

Scientific lectures Programme - Wednesday 10 September

14:50	O-7778	Corrosion mechanism and electrochemical performance of TiO₂ nanostructures synthesized in organic electrolytes at high voltage N. Rayon, Universidad Autónoma del Estado de Morelos/MEX; M. Vera, C. Cuevas, Universidad Autónoma del Estado de Morelos/MEX
15:10	O-7234	Electrochemical and XPS studies of the corrosion inhibition of carbon steel in phosphoric acid pickling solutions by purpald M. Traisnel, C. Jama, ENSCL, Villeneuve d'Ascq/F; F. Bentiss, Doukkali University, El Jadida/MA; B. Hammouti, Université Mohammed 1er, Oujda/MA
15:30	O-7280	Inhibition of mild steel corrosion in acidic medium by vanillin cationic surfactants I. Aiad, M. El-Sukkary, M. Samy, Egyptian Petroleum Research Institute, Cairo/ET; S. Sayied, Ain Shams University, Cairo/ET; Y. Moshira, Egyptian Petroleum Research Institute, Cairo/ET
15:50	O-7674	Assessment of the corrosion inhibitors effectiveness and their influence on the concrete physical properties F.M.A. Moreira, C. Resende, A.F. Diniz, H.F Gorgulho, A.H.S. Bueno, P.B. Martelli, Federal University of São João Del Rei/BR
16:10	Coffee break	
Corrosion and Scale Inhibition		Room D
Chairs	G. Schmitt / B. Bavarian	
16:40	O-7774	Electrochemical studies of the inhibition effect of 2-dimethylamine on the corrosion of austenitic stainless steel type 304 in dilute HCl R.T. Loto, C.A. Loto, Covenant University, Ota/NGR
17:00	O-7056	Inhibition efficiency by an aqueous extract of flower petals of <i>Cassia auriculata</i> on corrosive carbon steel S. Rajendran, Anna University, Dindigul/IND; M. Sangeetha, J. Sathiyabama, Madurai Kamaraj University, Dindigul/IND
17:20	O-7069	Sodium potassium tartrate (SPT) as a corrosion inhibitor for aluminium M. Hakeem, Hajee Karutha Rowther Howdia College, Uthamapalayam/IND; S. Rajendran, RVS College of Engineering and Technology, Dindigul/IND; P. Peter Pascal Regis, St. Joseph's College, Trichy/IND
17:40		WP 1 business meeting
Corrosion of Archaeological and Historical Artefacts		Room E
Chairs	D. Neff	
10:00	O-7496	Mill scale on historic wrought iron: impact on corrosion and coating performance N. Emmerson, E. Nordgren, D. Watkinson, Cardiff University/UK

Scientific lectures Programme - Wednesday 10 September

10:20	O-7555	Protective coatings for historic wrought iron: epoxy resins versus oil-based systems <u>N.J. Emmerson</u> , D.E. Watkinson, Cardiff University/UK
10:40	O-7589	Pre-corroded electrical resistance sensors to mimic, monitor and guide the conservation of heritage iron <u>J. Dracott</u> , S. Lyon, University of Manchester/UK; D. Watkinson, M. Rimmer, Cardiff University/UK
11:00	O-7390	Corrosion products transformations during sub-critical stabilization of archaeological iron artefacts <u>M. Bayle</u> , D. Neff, Laboratoire Archéomatériaux et Prévision de l'Altération, Gif-sur-Yvette/F; Ph. de Viviés, J-B. Memet, A-CORROS Expertise, Arles/F; Ph. Dillmann, Laboratoire Archéomatériaux et Prévision de l'Altération, Gif-sur-Yvette/F
11:20	Coffee break	
Corrosion of Archaeological and Historical Artefacts		Room E
Chairs	D. Neff	
11:50	O-7258	Predicting corrosion: chloride form and the response of archaeological iron to humidity <u>D. Watkinson</u> , M. Rimmer, Cardiff University/UK
12:10	O-7734	Testing the durability of modified corrosion protection systems for iron monuments conservation <u>M. Raedel</u> , M. Buecker, BAM Federal Institute for Materials Research and Testing, Berlin/D
12:30	O-7671	Evaluation of the conservation state of metallic artefacts from the villa dei quintili in Rome <u>E. Angelini</u> , S. Grassini, Politecnico di Torino/I; G. Galli, Soprintendenza Speciale per i Beni Archeologici, Roma/I; M.F. La Russa, S.A. Ruffolo, Università della Calabria, Arcavacata di Rende/I
12:50	O-7459	Atmospheric corrosion effects of air pollution on materials and cultural property in Kathmandu, Nepal <u>J. Tidblad</u> , Swerea KIMAB, Kista/S; K. Hicks, J. Kuylenstierna, Stockholm Environment Institute, York/UK; B.B. Pradhan, P. Dangol, ICIMOD, Kathmandu/NEP; I. Mylvakanam, UNEP, Bangkok/T
13:10	Lunch	

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Corrosion of Archaeological and Historical Artefacts		Room E
Chairs		D. Neff
14:30	O-7562	Innovative biological approaches for metal conservation E. Joseph, Neuchâtel University/CH; P. Letardi, CNR, Genoa/I; M. Albini, L. Comensoli, W. Kooli, L. Mathys, Neuchâtel University/CH; E. Doman Beuret, Archaeological Park and Museum Latanium, Neuchâtel/CH; L. Brambilla, Haute Ecole Arc Conservation-Restoration, Neuchâtel/CH; C. Cevey, Archaeological Park and Museum Latanium, Neuchâtel/CH; R. Bertholon, Haute Ecole Arc Conservation-Restoration, Neuchâtel/CH; P. Junier, D. Job, Neuchâtel University/CH
14:50	O-7272	Insoluble decanoate salts as anticorrosion additives in acrylate varnish <u>J. Stoullil</u> , V. Nikendey, Institute of Chemical Technology, Prague/CZ
15:10	O-7628	Protection of patinas on various bronzes by different types of inhibitors T. Kosec, Slovenian National Building and Civil Engineering Institute, Ljubljana/SLO; K. Marusic, University of Zagreb/HR; P. Ropret, Institute for the Protection of the Cultural Heritage of Slovenia, Ljubljana/SLO; H. Otmacic Curkovic, University of Zagreb/HR
15:30	O-7519	Plasma deposited DLC coatings for the conservation of bronze artefacts E. Angelini, Politecnico di Torino/I; D. Caschera, CNR, Roma/I; F. Faraldi, <u>S. Grassini</u> , Politecnico di Torino/I; G.M. Ingo, CNR, Roma/I
15:50	O-7319	Self-assembling monolayers of organic acids for protection of bronze from polluted urban atmospheres <u>K. Marusic</u> , N. Devetak, S. Spoljaric, H. Otmacic Curkovic, University of Zagreb/HR
16:10	Coffee break	
Corrosion of Archaeological and Historical Artefacts		Room E
Chairs		D. Neff
16:40	O-7727	Soil-induced corrosion of ancient roman brass: a case study O. Papadopoulou, P. Vassiliou, National Technical University of Athens/GR; V. Gouda, National Research Center, Cairo/ET; F. Faraldi, S. Grassini, <u>E. Angelini</u> , DISAT Politecnico di Torino/I
17:00	O-7843	Corrosion of sheet piling in the soil: results of a literature review and practical research P. Kraaijenbrink, G.A.M. van Meurs, <u>S. Jansen</u> , Deltares, Delft/NL; H. Senhorst, Rijkswaterstaat, Lelystad/NL

Scientific lectures Programme - Wednesday 10 September

17:20	O-7376	Effects of <i>Juniperus communis</i> leaves extracts on tin bronze corrosion R. Ben Channouf, N. Souissi, Tunis El Manar University/TN; S. Zanna, H. Ardelean, Chimie ParisTech/F; N. Bellakhal, Carthage University, Tunis/TN; P. Marcus, Chimie ParisTech/F
17:40		WP21 business meeting
Corrosion of Steel in Concrete		Room 4
Chairs		M. Raupach / C. Helm
10:00	O-7051	Simple concrete life extension A. Borderon, Valbruna Spa., Vicenza/I
10:20	O-7265	Smart controlled release corrosion inhibitors for steel reinforced concrete D. Bastidas, I. Aguirre, S. Fajardo, I. Llorente, CENIM-CSIC, Madrid/E; E. Medina, UPM, Madrid/E; V. La Iglesia, CENIM-CSIC, Madrid/E; V. González, UPM, Madrid/E; J. Rodríguez, University of Granada/E; N. Birbilis, Monash University, Clayton/AUS; C. Monticelli, A. Balbo, University of Ferrara/I; V.J. Gelling, North Dakota State University, Fargo, ND/USA
10:40	O-7354	Investigation of sodium molybdate's effect on the passive film of steel rebars in different simulated concrete pore solution environments Y.T. Tan, National University of Singapore/SGP; S.L. Wijesinghe, SIMTech, Singapore/SGP; D.J. Blackwood, National University of Singapore/SGP
11:00	O-7088	Application of gamma-ray radiography and gravimetric measurements after accelerated corrosion tests of steel embedded in mortar G. Duffó, Comisión Nacional de Energía Atómica, Buenos Aires/RA; N. Gaillard, CNEA-UNSAM, Buenos Aires/RA; M. Mariscotti, M. Ruffolo, THASA, Buenos Aires/RA
11:20		Coffee break
Corrosion of Steel in Concrete		Room 4
Chairs		M. Raupach / C. Helm
11:50	O-7107	Long term performance of migrating corrosion inhibitors to protect reinforced concrete structures in aggressive environments B. Bavarian, L. Reiner, California State University, Northridge, CA/USA
12:10	O-7656	The use of corrosion resistant steel reinforcement in chlorides contaminated concrete N. Gartner, T. Kosec, A. Legat, Slovenian National Building and Civil Engineering Institute, Ljubljana/SLO

Scientific lectures Programme - Wednesday 10 September

12:30	O-7701	The synergetic effect of molybdenum and nitrogen alloying elements on austenitic stainless steels pitting resistance V. Roche, Université Joseph Fourier, Saint Martin d'Hères/F; I.N. Viçosa, C. Loable , R.P. Nogueira, Grenoble-INP, Saint Martin d'Hères/F; E. Chauveau, M. Mantel, T.J. Mesquita, CRU Ugitech, Ugine/F
12:50	O-7842	Influence of the type of reinforcement on load bearing capacity of corroded reinforced concrete structures A. Bossio , G.P. Lignola, T. Monetta, A. Prota, F. Bellucci, E. Cosenza, G. Manfredi, Università degli Studi di Napoli Federico II/I
13:10 Lunch		
Corrosion of Steel in Concrete		Room 4
Chairs		M. Raupach / C. Helm
14:30	O-7393	Design, installation and performance of cathodic protection systems on Langeland Bridge, Denmark R. Sorensen , J. Kok, COWI A/S, Kongens Lyngby/DK; K. Riis, Danish Road Directorate, Copenhagen/DK; F. Villumsen, Krüger Aquacare A/S, Glostrup/DK
14:50	O-7116	Altered cement hydration and subsequently modified porosity, permeability and compressive strength of mortar specimens due to electrical A. Susanto , D.A. Koleva, K. van Breugel, TU Delft/NL
15:10	O-7241	Monitoring steel corrosion in reinforced concrete beams with variable crack widths under sustained load A. Blagojevic , D.A. Koleva, J.C. Walraven, Delft University of Technology/NL
15:30	O-7741	Active corrosion time affecting visual corrosion damage in carbonated concrete facades A. Köliö, J. Lahdensivu , Tampere University of Technology/FIN
15:50	O-7557	Cross-border research for corrosion control in civil structures: recent research lines and novel approaches, employing electrochemistry, concrete materials science and nano-technology D.A. Koleva , Delft University of Technology/NL
16:10 Coffee break		
Corrosion of Steel in Concrete		Room 4
Chairs		M. Raupach / C. Helm
16:40	O-7583	Performance of conductive coatings used for cathodic protection of reinforced concrete structures under consideration of durability issues C. Helm, M. Raupach , RWTH Aachen/D

Scientific lectures Programme - Wednesday 10 September

17:00	O-7662	The use of cathodic protection for life enhancement of immersed reinforced concrete structures <u>P. Chess</u> , FORCE Technology, Colchester/UK; O. Klinghoffer, FORCE Technology, Brøndby/DK; F. Grønvold, P.V. Nygaard, FORCE Technology, Vallensbæk/DK
JS: Cathodic Protection in Marine Environments		Room 2
Chairs		U. Kivisaak / J. Crouzillac
10:00	O-7222	Heavy metal inputs from anodic dissolution of Al-Zn-In galvanic anodes to the marine environment: TALINE project S. Pineau, J. Deborde, ACCOAST, Arradon/F; <u>A.M. Grolleau</u> , DCNS, Cherbourg/F; P. Refait, Université La Rochelle/F; C. Caplat, Université de Caen, Cherbourg/F; O. Basuyaux, SMEL, Blainville-sur-Mer/F; M.L. Mahaut, Cnam/Intechmer, Cherbourg/F; S. Le Glatin, LDA, Saint-Lô/F; P. Bustamante, Université La Rochelle, La Rochelle/F; J.L. Gonzalez, Ifremer, Seyne-sur-Mer/F; C. Brach-Papa, Ifremer, Nantes/F; P. Honoré, CCI-CO Port de Calais/F
10:20	O-7729	Design of cathodic protection retrofitting of subsea pipelines assisted by FEM modeling <u>P. Marcassoli</u> , M. Ginocchio, B. Bazzoni, Cescor srl, Milan/I; A. Msallem, A. Ibrahim, Mellitah Oil and Gas/LAR
10:40	O-7306	Volume synthesis of a calcareous deposit on steel under cathodic protection by impressed current <u>A. Zanibellato</u> , R. Sabot, P. Refait, M. Jeannin, La Rochelle University/F
11:20 Coffee break		
WS: Marine Corrosion in Renewable Energy		Room 2
Chairs		P. Dent / L. Hilpert
11:50	O-7792	Coating deterioration and corrosion on offshore wind power structures: A review of inspection results <u>A. Momber</u> , Muehlhan AG, Hamburg/D
12:10	O-7230	Durability of coating repair systems for offshore service <u>A.R. Black</u> , P.K. Nielsen, Force Technology, Brøndby/DK
12:30	O-7365	Corrosive environment inside offshore monopile structures and challenges in monitoring <u>B. Jensen</u> , DONG Energy, Gentofte/DK; F. Grønvold, Force Institute, Vallensbæk/DK
12:50	O-7375	Cathodic protection for marine structures: 3 case studies <u>S. Ayyar</u> , J. Jansson, COWI A/S, Lyngby/DK
13:10 Lunch		

Scientific lectures Programme - Wednesday 10 September

Marine Corrosion		Room 2
Chairs	U. Kivisaak	
14:30	O-7370	Potential ennoblement of stainless steel in tropical seawaters <u>D. Thierry</u> , N. Larche, French Corrosion Institute, Brest/F; S. Wijesingue, SIMTECH, Singapore/SGP; S. Teo, NUS, Singapore/SGP
14:50	O-7735	Effect of residual chlorine on the spontaneous potential of stainless steels in seawater <u>H. Yakuwa</u> , M. Miyasaka, Ebara Corporation, Fujisawa/J; N. Shinoda, Y. Kuriki, JFE Techno-Research Corporation, Yokohama/J; J. Sakai, Waseda University, Tokyo/J
15:10	O-7458	Electrochemical monitoring of thermally sprayed aluminium coatings on steel in a simulated marine immersion environment <u>S. Paul</u> , C. Gomez Gomez, M.D.F. Harvey, TWI, Cambridge/UK
15:30	O-7129	Corrosion and cathodic protection of carbon steel in the tidal zone: Products, mechanisms and kinetics <u>P. Refait</u> , R. Sabot, M. Jeannin, La Rochelle University/F; H. Antony, Corrodys, Cherbourg/F; S. Pineau, Accoast S.A.S., Arradon/F
15:50	O-7144	SEM/EDX-investigation of rust scales formed on an aluminium-steel friction weld under marine atmosphere <u>M. Schneider</u> , Fraunhofer IKTS, Dresden/D; U. Langklotz, TU Dresden/D; U. Gierth, Fraunhofer IKTS, Dresden/D
16:10	Coffee break	
Marine Corrosion		Room 2
Chairs	U. Kivisaak	
16:40	O-7627	Use of nanostructured materials in marine corrosion protection: an integrated approach <u>J. Tedim</u> , F. Maia, A. Kuznetsova, A.P. Silva, R. Martins, A. Cunha, A. Almeida, S. Loureiro, R. Freitas, A.M.V.M. Soares, M.L. Zheludkevich, M.G.S. Ferreira, University of Aveiro/P
17:00	O-7790	The use of composite patches to repair ship structures: an electrochemical approach A. Collazo, X.R. Nóvoa, <u>C. Pérez</u> , University of Vigo/E
17:20	O-7808	The hydrogen permeation characteristics of high strength steel during splash zone corrosion process <u>Y.L. Huang</u> , W.J. Qu, X.M. Yu, Chinese Academy of Sciences, Qingdao/CHN

Scientific lectures Programme - Wednesday 10 September

17:40	O-7606	Marine corrosion of SS 316L in Persian Gulf and protective coating <u>M. Najmi</u> , D. Masouri, POGC, Tehran/IR
Microbial Corrosion		Room 5
Chairs		P. Cristiani / R. Basseguy
10:00	O-7791	Concrete deterioration by bacteriogenically induced sulfuric acid attack <u>C. Grengg</u> , A. Baldermann, M. Dietzel, F. Mittermayr, Graz University of Technology/A; <u>M. Böttcher</u> , Leibniz Institute for Baltic Sea Research, Warnemünde/D; <u>A. Leis</u> , Joanneum Research, Graz/A
10:20	O-7377	Microbiologically induced corrosion on tin bronze samples simulating uncommon archaeological corrosion <u>G. Ghiara</u> , P. Piccardo, M. Stauder, C. Pruzzo, University of Genova/I
10:40	O-7802	MIC on bridge-building carbon steel in a tropical/Amazonian environment <u>M. Vastra</u> , P. Salvin, C. Roos, Université des Antilles et de la Guyane, Cayenne/FGY
11:00	O-7797	Meromictic lakes as field laboratory for corrosion studies in aerobic and anaerobic conditions E. Guerrini, Università degli Studi di Milano/I; <u>P. Cristiani</u> , RSE SpA, Milan/I; S.P.M. Trasatti, Università degli Studi di Milano/I; M.L. Carvalho, G. Storni, RSE SpA, Milan/I
11:20		Coffee break
Microbial Corrosion		Room 5
Chairs		P. Cristiani / R. Basseguy
11:50	O-7322	Corrosion in biogas plants <u>R. Feser</u> , A. Krebs, University of Applied Sciences Iserlohn/D
12:10	O-7357	Failure investigation of heat exchanger tubes in closed loop cooling water system <u>S. Almaaesab</u> , H. Al-Mahamedh, SABIC, Jubail Industrial City/SAR
12:30	O-7301	Electrochemical behavior of low-carbon steel within MIC-induced corrosion and cathodic protection <u>E. Leon</u> , D.A. Koleva, H.M. Jonkers, J.M.C. Mol, K. Van Breugel, TU Delft/NL
12:50	O-7075	Accelerated souring test of crude oil under the anaerobic condition <u>Y. Tanji</u> , R. Hasegawa, K. Tohyama, K. Miyanaga, Tokyo Institute of Technology, Yokohama/J

Scientific lectures Programme - Wednesday 10 September

13:10		Lunch
		Corrosion and Corrosion Protection of Drinking Water Systems Room 5
Chairs		W. Erning
14:30	O-7388	Modeling water quality by water treatment for corrosion control in water distribution networks <u>A. Becker</u> , IWW Water Centre, Mülheim an der Ruhr/D
14:50	O-7466	Observations on the graphitic corrosion of cast iron trunk main: mechanisms and implications <u>R. Logan</u> , M. Mulheron, D. Jesson, P. Smith, University of Surrey, Guildford/UK; T. Evans, N. Clay-Michael, Thames Water Utilities Ltd., Reading/UK; J. Whiter, Formerly Thames Water Utilities Ltd., Reading/UK
15:10	O-7753	Corrosion failure analysis of galvanized steel pipes in a closed water cooling system <u>A. Colombo</u> , L. Oldani, S.P. Trasatti, Università degli Studi di Milano/I
15:30	O-7548	Material durability and biofilm development in drinking water network - comparison of stainless steel grades with commonly used materials <u>A. Allion</u> , Aperam Isbergues Research Center/F; S. Jacques, J. Peultier, P. Boillot, ArcelorMittal, Le Creusot/F; J.-M. Damasse, Aperam Isbergues Research Center/F; M.-C. Bonnet, EPI, Fraisses/F
15:50	O-7424	Long term corrosion test of stainless steel for water heater applications <u>E. Johansson</u> , S. Hägg Mameng, Outokumpu Stainless AB, Avesta/S
16:10		Coffee break
		Corrosion and Corrosion Protection of Drinking Water Systems Room 5
Chairs		W. Erning
16:40	O-7380	Fatigue behavior of high quality steels in water <u>M. Borchert</u> , M. Panzenboeck, Montanuniversitaet Leoben/A
17:00	O-7358	Influence of disinfection chemicals on corrosion of various metals for drinking water supply systems <u>M. Bajt Leban</u> , T. Kosec, Slovenian National Building and Civil Engineering Institute, Ljubljana/SLO
17:20	O-7410	Limiting conditions of pitting corrosion for lean duplex stainless steel as a substitute for standard austenitic grades <u>S. Hägg Mameng</u> , Outokumpu Stainless Steel AB, Avesta/S; R. Petterson, The Swedish Steel Producers' Association Stockholm/S

Scientific lectures Programme - Wednesday 10 September

17:40	O-7852	Effectiveness of induction annealing process for the ferritic stainless steel AISI 444 A. Acquesta, C. Bitondo, A. Bossio, A. Carangelo, University of Naples "Federico II"/I; M. Curioni, The University of Manchester/UK; F. Belluccia, University of Naples "Federico II"/I
Corrosion in the Refinery Industry		Room 3
Chairs	F. Ropital	
10:00	O-7726	Risk based inspection. The most rapid way in order to reduce maintenance and inspection costs A. Pette, Bureau Veritas Italia SpA, Milano/I
10:20	O-7740	Integrity assurance of process facilities at Adriatic LNG terminal through risk based inspection F. Belloni, Adriatic LNG, Milan/I; V. Colombo, G. Benassi, Cescor srl, Milan/I
10:40	O-7579	Towards a first global assessment of corrosion issues in advanced biorefineries as preliminary learnings from ECORBIO G. Marlair, H.-L. Ngo, W. Benaissa, INERIS, Verneuil-en-Halatte/F; M. Nonus, C. Len, E. Hondjuila-Miokono, UTC, Compiègne/F; N. Thiébault, ESCOM, Compiègne/F; J. Garcia, CETIM, Senlis/F; B. Narcy, LEREM, Montataire/F; C. Sarazin, I. Gosselin, UPJV, Amiens/F; C. Triquenaux, A. Darraspen, MAGUIN SAS, Charmes/F
11:00	O-7699	Corrosion behaviour of AISI 1006 steel in aqueous extracts of biodiesel and petrodiesel L.F.P. Dick, M.D. Oliveira, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR
11:20	Coffee break	
Corrosion in the Refinery Industry		Room 3
Chairs	F. Ropital	
11:50	O-7061	Corrosion in systems for storage and transportation of petroleum products and biofuels A. Groyzman, Israeli Society of Chemical Engineers & Chemists, Tel Aviv/IL
12:10	O-7408	Laboratory test method for corrosion under thermal insulation O. Knudsen, SINTEF, Trondheim/N; J. Aaneby, Jotun, Sandefjord/N
12:30	O-7841	Corrosion mitigation in sulfur trains auxiliary burner K. Al-Hajri, Saudi Aramco, Abqiaq/SAR
12:50	O-7127	Chemical treatment of untreated close water cooling system F. Omer, Ras Lanuf Oil & Gas Processing Co./LAR

Scientific lectures Programme - Wednesday 10 September

13:10		Lunch
Corrosion in the Refinery Industry		Room 3
Chairs	F. Ropital	
14:50	O-7817	3D TRASAR cooling water technology combined to refined knowledge system will help to optimize total cost of operation, to improve reliability at any time even during process leaks and to minimize the impact of process leaks on asset management <u>V. Bour Beucler</u> , NALCO, Wasquehal/F
15:10	O-7500	Precipitation and dissolution of critical phases in alloy 625 <u>R. Lackner</u> , G. Mori, Montanuniversität Leoben/A; <u>R. Egger</u> , F. Winter, voestalpine Grobblech, Linz/A; <u>W. Grogger</u> , M. Albu, FELMI-ZFE, Graz/A
15:30	O-7554	Laboratory examination of two olefin cracking radiant tube materials <u>J. Zhang</u> , L. Allcock, SABIC, Redcar/UK; A. Al-Meshari, E.M. Murillo, M. Diab, S. Ahmad, SABIC, Jubail/SAR
15:50	O-7120	Effective parameters on bottom plates corrosion phenomenon of storage tanks during construction time interval: A case study, investigations and solutions <u>H. Aldaghi</u> , Pars Oil and Gas Company, Mashhad/IR; S. Easapour, Y. Haghighat, Pars Oil and Gas Company, Assaluyeh/IR
16:10		Coffee break
JS: High Temperature Corrosion in the Refinery, Petrochemical & Chemical Industries		Room 3
Chairs	M. Schütze / F. Ropital	
16:40	O-7400	Influence of single surface ash layer on dual corrosion <u>M. Mosquera Feijoo</u> , A. Kranzmann, BAM - Federal Institute for Materials Research and Testing, Berlin/D; A. Baselga Zapater, Institut Quimic de Sarrià, Barcelona/E
17:00	O-7240	Acoustic emission analysis coupled with thermogravimetric experiments dedicated to high temperature corrosion studies on metallic alloys <u>V. Peres</u> , O. Al Haj, E. Serris, M. Cournil, Ecole Nationale Supérieure des Mines de Saint Etienne/F; F. Grosjean, J. Kittel, F. Ropital, IFPEN, Solaize/F
17:20	O-7135	Integrated risk management program to allow safe profitable processing of opportunity naphthenic acid crudes <u>P. Thornthwaite</u> , Nalco Champion, Northwich/UK; K. Clarke, J. Davies, Permasense, Horsham/UK

Scientific lectures Programme - Thursday 11 September

Plenary Lecture		Auditorium
09:00	PL-7840	Theory and practice of cathodic protection and cathodic prevention <u>L. Lazzari</u> , Politecnico di Milano/I
09:45		Break for Changing Lecture Hall
Inorganic Coatings		Auditorium
Chairs	L. Fedrizzi / A. Simoes	
10:00	O-7775	Development of a bilayer superhydrophobic electrophoretic sol-gel coating on stainless steel <u>A.M. Simoes</u> , M.M. Lourenço, J.C. Fernandes, University of Lisbon/P
10:20	O-7362	Sol-gel derived protective coatings to prevent microbial induced corrosion <u>S. Pfeifer</u> , TU Bergakademie Freiberg/D; <u>A. Gutierrez</u> , Van Loon Chemical Innovation, Amsterdam/NL; <u>E. Kroke</u> , TU Bergakademie Freiberg/D
10:40	O-7232	Novel nanoparticle-based coatings for the oxidation protection of steel compounds during press-hardening <u>B. Tigges</u> , S. Benfer, Dechema Forschungsinstitut, Frankfurt am Main/D; <u>A. Tenié</u> , C. Klesen, Department of Ferrous Metallurgy, Aachen/D; <u>M. Yekehtaz</u> , Dechema Forschungsinstitut, Frankfurt am Main/D; <u>W. Bleck</u> , Department of Ferrous Metallurgy, Aachen/D; <u>W. Fürbeth</u> , Dechema Forschungsinstitut, Frankfurt am Main/D
11:20	Coffee break	
Inorganic Coatings		Auditorium
Chairs	L. Fedrizzi / A. Simoes	
11:50	O-7666	Behavior of alloying elements during anodizing of magnesium alloys <u>A. Nimrova</u> , P. Skeldon, G.E. Thompson, University of Manchester/UK; <u>C. Olivero</u> , P. Chapon, Horiba Jobin-Yvon SAS, Longjumeau/F
12:10	O-7593	Chemistry of Zr/Cr based solutions: application to sealing of anodized aluminium alloys <u>N. Chahboun</u> , Université de Lorraine, Vandoeuvre-Les Nancy/F and Messier-Bugatti-Dowty, Molsheim/F; <u>E. Rocca</u> , D. Veys-Renaux, Université de Lorraine, Vandoeuvre-Les Nancy/F; <u>M. Augros</u> , Messier-Bugatti Dowty, Molsheim/F; <u>M. Boutoba</u> , Eurocopter, Marignane/F; <u>N. Caldeira</u> , Snecma, Paris/F

Scientific lectures Programme - Thursday 11 September

12:30	O-7239	Corrosion properties of PEO coatings obtained on Mg alloys with an electrolyte containing different concentrations of molybdate <u>L. Pezzato</u> , K. Brunelli, M. Magrini, M. Dabalà, University of Padua/I
12:50	O-7242	Electrochemical and surface analysis of corrosion properties of nanometre-thick alumina coatings prepared by ALD on copper <u>S. Mirhashemihaghighi</u> , J. Swiatowska, V. Maurice, A. Seyeux, L.H. Klein, CNRS - Chimie ParisTech/F; E. Härkönen, M. Ritala, University of Helsinki/FIN; P. Marcus, CNRS - Chimie ParisTech/F
13:10	O-7428	Experimental evaluation of the corrosion protection ability of PVD-coatings <u>U. Depner-Miller</u> , G. Andersohn, M. Oechsner, TU Darmstadt/D; K. Bobzin, N. Bagcivan, T. Brögelmann, R. Weiss, RWTH Aachen/D
13:30 Lunch		
Inorganic Coatings		Auditorium
Chairs		M.G.S. Ferreira / P. Keil
14:50	O-7584	Environmentally friendly CeCC for AA6060 aluminum alloy <u>A. De Nicolo</u> , L. Paussa, F. Andreatta, A. Gobessi, University of Udine/I; C. Cepek, Istituto Officina dei Materiali - CNR, Trieste/I; L. Fedrizzi, University of Udine/I
15:10	O-7597	Aluminium alloys anodizing: effect of the composition and the microstructure <u>N. Chahboun</u> , E. Rocca, D. Veys-Renaux, Université de Lorraine, Vandoeuvre Les Nancy/F; M. Augros, Messier-Bugatti Dowty, Molshiem/F; M. Boutoba, Eurocopter, Marseille/F; N. Caldeira, Snecma, Paris/F
15:30	O-7473	Investigation on defect morphology and corrosion behaviour of TiMgN hard coatings on steel substrate <u>T. Mueller</u> , A. Heyn, BAM Federal Institute of Materials Research and Testing, Berlin/D; M. Fenker, M. Balzer, fem Research Institute, Schwäbisch Gmünd/D
15:50	O-7638	Performance and failure mode of diamond-like carbon coatings in simulated oil and gas conditions <u>A. Broughton</u> , S.B. Lyon, The University of Manchester/UK
16:10	O-7113	Synthesis and behavior of nano hard anodized layers <u>Z. Abdel Hamid</u> , Central Metallurgical R&D Institute (CMRDI), Helwan/ET
16:30 Coffee break		
Organic Coatings		Auditorium
Chairs		M.G.S. Ferreira / P. Keil
17:00	O-7485	A new way for corrosion research in an artificially produced micro-climate between alloys and organic coatings <u>S. Walkner</u> , A.W. Hassel, University of Linz/A

Scientific lectures Programme - Thursday 11 September

17:20	O-7493	Delamination kinetics of chemisorbed polymer coatings on nano-structured metal surfaces <u>A. Bashir</u> , D. Iqbal, A. Erbe, M. Rohwerder, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D
17:40	O-7635	Strain induced defect formation in ultra-thin protective films on TWIP steels <u>C. Liu</u> , O. Ozcan, T. Niendorf, F. Brenne, G. Grundmeier, University of Paderborn/D
18:00	O-7560	Effect of structure and stress-state interactions on water diffusion processes in epoxy coatings <u>G. Bouvet</u> , S. Cohendoz, X. Feaugas, S. Mallarino, S. Touzain, University of La Rochelle/F
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs	P. Marcus / V. Vignal	
10:00	KN-7708	Multiscale corrosion modelling <u>J. Deconinck</u> , O. Dolgikh, P. Maciel, A. Demeter, H. Simillion, N. Van den Steen, Vrije Universiteit Brussel/B
10:40	O-7313	Critical aspects of electrochemical noise-based corrosion monitoring <u>A.M. Homborg</u> , Royal Netherlands Navy, Den Helder/NL; T. Tinga, Netherlands Defence Academy, Den Helder/NL; X. Zhang, Endures BV, Den Helder/NL; E.P.M. van Westing, Tata Steel Research & Development, Velsen Noord/NL; G.M. Ferrari, Endures BV, Den Helder/NL; J.H.W. de Wit, J.M.C. Mol, Delft University of Technology/NL
11:00	O-7697	A review on electrochemical noise measurement as a tool for evaluation of organic coatings and recent developments <u>D. Mills</u> , S.S. Jamali, University of Northampton/UK
11:20 Coffee break		
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs	P. Marcus / V. Vignal	
11:50	O-7373	Study of the relation between microstructure and corrosion properties of polycrystalline copper E. Martinez Lombardia, Vrije Universiteit Brussel/B; L. Lapeire, Ghent University/B; V. Maurice, Chimie ParisTech/F; I. De Graeve, Vrije Universiteit Brussel/B; L. Klein, P. Marcus, Chimie ParisTech/F; K. Verbeken, L. Kestens, Ghent University/B; <u>H. Terry</u> , Vrije Universiteit Brussel/B
12:10	O-7484	3D printed (flow) cells - a new approach in hydrogen embrittlement studies <u>G. Schimo</u> , A.W. Hassel, University of Linz/A

Scientific lectures Programme - Thursday 11 September

12:30	O-7137	Corrosion of iron and steel: occurrence of iron(II) hydroxysalts <u>C. Remazeilles</u> , I. Azoulay, M. Jeannin, R. Sabot, Ph. Refait, University of La Rochelle/F
12:50	O-7204	Electrochemical characterization of corrosion behaviour of different metals in hot molten salt for solar thermal power plants <u>D. Rückle</u> , S. Kaesche, H. Garrecht, Universität Stuttgart/D; S. Virtanen, Universität Erlangen-Nürnberg/D
13:10	O-7570	Effect of HNO₃ and Cl⁻ on corrosion behaviour of AISI 304 and Cr-Mn austenitic stainless steels <u>N. Khobragade</u> , Department of Metallurgical Engineering, Amravati/IND; A. Patil, Visvesvaraya National Institute of Technology, Nagpur/IND
13:30	Lunch	
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs	K. Fushimi / J. Pan	
14:50	O-7167	Grain-dependency of passive oxide film formed on iron in sulphuric acid <u>Y. Takabatake</u> , K. Fushimi, T. Nakanishi, Y. Hasegawa, Hokkaido University, Sapporo/J
15:10	O-7264	Predictive modelling of the corrosion rate of carbon steel focusing on the effect of the precipitation of corrosion products A. Marion, <u>B. Vuillemin</u> , R. Oltra, Université de Bourgogne, Dijon/F; D. Crusset, ANDRA, Chatenay Malabry/F
15:30	O-7364	Development of a liquid-phase sulfide ion gun for localized sulfidation of metal surfaces <u>J.-S. Lee</u> , K. Fushimi, T. Nakanishi, Y. Hasegawa, Hokkaido University, Sapporo/J
15:50	O-7618	Development of a sensor for interfacial pH measurements during pitting corrosion in situ observed by temporal series of micrographs <u>A. Mendes Zimer</u> , M. Medina Da Silva, L. Helena Mascaro, E. Chaves Pereira, Federal University of São Carlos/BR
16:10	O-7513	Markov chain model to predict localised corrosion of stainless steels <u>A. Brenna</u> , M. Ormellese, L. Lazzari, Politecnico di Milano/I
16:30	Coffee break	
Corrosion Mechanisms, Methods and Modelling		Fermi Hall
Chairs	K. Fushimi / J. Pan	
17:00	O-7783	Mechanistic study of degradation of coil coated steel <u>Y. Liu</u> , X. Zhou, G.E. Thompson, S.B. Lyon, T. Hashimoto, The University of Manchester/UK; G. Smith, S. Gibbon, D. Francis, AkzoNobel, Newcastle/UK; A. Gholinia, X. Zhong, The University of Manchester/UK

Scientific lectures Programme - Thursday 11 September

17:20	O-7641	Finely distributed anodic and cathodic centers underneath organic coatings - characterization and effects on the delamination mechanism <u>M. Pichler</u> , CEST, Wiener Neustadt/A; M. Fleischanderl, voestalpine Stahl GmbH, Linz/A; M. Wolpers, Henkel AG & Co. KGaA, Düsseldorf/D; G. Fafilek, Vienna University of Technology/A
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs		S. Paterson / J. Kittel
10:00	O-7510	Effects of high flow rate on corrosion of carbon steel in high pressure CO₂ environment by means of linear polarization resistance <u>F. Todesco</u> , M.E. Gennaro, S. Sgorlon, Venezia Technologie s.p.a., Venezia/I; L. Torri, eni E&P, S. Donato Milanese/I
10:20	O-7571	Translating oilfield material exposures into laboratory tests <u>W. Grimes</u> , M. Wilms, Shell Global Solutions International B.V., Amsterdam/NL
10:40	O-7491	Corrosion fatigue of aluminium drilling pipes: case study <u>L. Alleva</u> , Centro Sviluppo Materiali S.p.A, Rome/I; R. Porta, Centro Sviluppo Materiali S.p.A., Rome/I; G. Hoxha, ENI, Milan/I
11:00	O-7439	An innovative design for top-of line corrosion assessment in laboratory H. Mahmoud, Wood Group Kenny (WGIM), London/UK and University of Leeds/UK; A. Neville, University of Leeds/UK; A. Barnett, <u>E. Mavredaki</u> , Wood Group Kenny (WGIM), London/UK
11:20		Coffee break
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs		S. Paterson / J. Kittel
11:50	O-7508	Effect of plastic deformation on hydrogen permeation of API 5L X65 steel pipeline <u>E. Fallahmohammadi</u> , F. Bolzoni, G. Gumagalli, G. Re, L. Lazzari, Politecnico di Milano/I
12:10	O-7407	Effective assessment of crude oil sourness for the material selection of refinery feeder pipeline <u>J. Khosravi</u> , NIORDC-NIOEC, Tehran/IR
12:30	O-7448	Assessment of ionic liquids corrosivity: preliminary results <u>M.V. Diamanti</u> , U. Velardi, A. Mele, MP. Pedferri, M. Ormellesse, Politecnico di Milano/I
12:50	O-7684	An alternative to H₂S in NACE corrosion test for sulphide and hydrogen-induced cracking risk assessment C. Colombo, S. Corsinovi, G. Lovicu, <u>R. Valentini</u> , University of Pisa/I

Scientific lectures Programme - Thursday 11 September

13:10	O-7395	Examination of line pipe strength and toughness in arctic environments combined with severe sour service <u>A. Smith</u> , G. Mortali, G. Melis, Centro Sviluppo Materiali, Rome/I; O. Albores, E. Garcia, TenarisTamsa, Veracruz/MEX
13:30 Lunch		
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson / M. Wilms	
14:50	O-7238	Reducing sour corrosion using new, thermally stable hydrogen sulfide scavengers <u>S. Lehrer</u> , V. Jovancicevic, S. Ramachandran, Baker Hughes, Sugar Land, TX/USA
15:10	O-7465	Methanesulfonic acid (MSA) as an acid used in the well stimulation procedure and corrosion of ²²Cr J. Jackson, BASF SE, Ludwigshafen/D; <u>M. Finsgar</u> , University of Maribor/SLO
15:30	O-7541	About the correspondence of test conditions with field conditions in materials selection <u>G. Gabetta</u> , S. Corra, eni e&p Division, San Donato Milanese/I; S. Sgorlon, VeneziaTecnologie/I; S. Trasatti, Milano University/I
15:50	O-7093	The effect of deposit types on under-deposit corrosion behavior of carbon steel in sour environments <u>N. Alanazi</u> , A. Sherik, A. Rasheed, S. Amar, M. Alneemi, Saudi Aramco, Dhahran/SAR
16:10	O-7058	Improving oil and gas production infrastructure and equipment durability with active thermal sprayed coatings <u>F. van Rodijnen</u> , Oerlikon Metco, Kelsterbach/D
16:30 Coffee break		
Corrosion in Oil & Gas Production		Pacinotti Hall
Chairs	S. Paterson / M. Wilms	
17:00	O-7488	Failure of corrosion barriers in integrity management of subsea production systems - a statistical overview <u>B. Graver</u> , F. Saint-Victor, K. Lønvik, B. Leinum, DNV GL, Høvik/N
17:20	O-7205	Protective effect of molybdenum added to nickel based alloy in H₂S-Cl⁻ environment A. Tomio, <u>M. Sagara</u> , T. Doi, Nippon Steel & Sumitomo Metal Corporation, Amagasaki/J; H. Amaya, Nippon Steel & Sumitomo Metal Corporation, Wakayama/J; N. Otsuka, Nippon Steel & Sumitomo Metal Corporation, Amagasaki/J; T. Kudo, Amagasaki/J

Scientific lectures Programme - Thursday 11 September

17:40	O-7619	Wireline failures in oil & gas wells - case studies D. Masouri, <u>M. Askari</u> , S. Afroukhteh, Pars Oil and Gas Company (POGC), Tehran/IR
Nuclear Corrosion		Room C
Chairs		D. Féron / S. Ritter
10:00	KN-7691	Flow accelerated corrosion management using brt-cicero™: performances and future updates <u>S. Trévin</u> , M-P. Moutrille, P. Caylar, D. Delacoux, E. Gipon, EDF DTG, Grenoble/F
10:40	O-7104	Evaluation of the effects of pH and oxygen on mitigation of wall thinning of carbon steel due to flow-accelerated corrosion <u>S. Uchida</u> , M. Naitoh, H. Okada, Institute of Applied Energy, Tokyo/J
11:00	O-7133	Intergranular oxidation of alloy 600 exposed to simulated PWR primary water <u>J. Caballero Hinostrroza</u> , EDF R&D, Moret sur Loing/F and Mines ParisTech University, Melun/F; <u>J. Crépin</u> , Mines ParisTech University, Evry/F; <u>T. Couvant</u> , EDF R&D, Moret sur Loing/F; <u>C. Duhamel</u> , Mines ParisTech University, Evry/F
11:20	Coffee break	
Nuclear Corrosion		Room C
Chairs		Th. Couvant / M. Vankeerbergen
11:50	O-7149	Effect of alloying elements and surface preparation on the oxidation behaviour of nickel base alloys in superheated steam <u>F. Hamdani</u> , Tohoku University, Sendai/J and INSA-Lyon, Villeurbanne/F; <u>H. Abe</u> , Tohoku University, Sendai/J; <u>B. Ter-Ovanesian</u> , B. Normand, INSA-Lyon, Villeurbanne/F; <u>Y. Watanabe</u> , Tohoku University, Sendai/J
12:10	O-7436	Image-based cohesive element modelling of low temperature crack propagation in alloy 82 weld metal <u>G. Klimayts</u> , A.P. Jivkov, D.L. Engelberg, University of Manchester/UK
12:30	O-7636	Detection and characterization of stress-corrosion cracking of stainless steel in simulated BWR environment <u>B. Zajec</u> , M. Bajt Leban, A. Legat, Slovenian National Building and Civil Engineering Institute, Ljubljana/SLO
12:50	O-7661	Characterization of Ni/NiO layers formed on alloy 182 weld metal in PWR water <u>C. de Araujo Figueiredo</u> , CDTN/CNEN, Belo Horizonte/BR; <u>R. Mendonça</u> , CAPES, Brasilia/BR; <u>M. Vankeerberghen</u> , R-W. Bosch, SCK CEN, Mol/B

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13:30		Lunch
Nuclear Corrosion		Room C
Chairs	A. Legat / D. Gomez Briceno	
14:50	O-7542	Experimental and numerical study of the iodine-induced stress corrosion cracking of zircaloy-4 nuclear fuel cladding tubes <u>T. Jezequel</u> , Q. Auzoux, D. Le Boulch, CEA Saclay, Gif-sur-Yvette/F; E. Andrieu, C. Blanc, CIRIMAT/INPT, Toulouse/F; C. Delafoy, AREVA NP, Lyon/F; N. Barnel, EDF R&D, Moret-sur-Loing/F; C. Dal Bianco, EDF SEPTEN, Lyon/F
15:10	O-7130	The influence of lithium ions on corrosion of zirconium alloys <u>A. Krausová</u> , J. Macák, P. Sajdl, Institute of Chemical Technology, Prague/CZ; V. Renciuková, V. Vrtílková, UJP Prague/CZ
15:30	O-7283	Effect of superheated steam on the corrosion behavior of advanced steels proposed as accident tolerant fuel cladding <u>R. Rebak</u> , E. Dolley, GE Global Research, Schenectady, NY/USA
15:50	O-7096	Study on the effect of phosphorous concentration on intergranular corrosion of stainless steel in boiling nitric acid solution <u>F. Ueno</u> , A. Komatsu, T. Igarashi, M. Yamamoto, Japan Atomic Energy Agency, Ibaraki/J
16:10	O-7176	Evaluation of the corrosion behavior of candidate materials for overpack applications under buried conditions <u>G. Nakayama</u> , Y. Sakakibara, IHI Corporation, Yokohama/J
16:30		Coffee break
Nuclear Corrosion		Room C
Chairs	J. Macak / S. Uchida	
17:00	O-7503	The corrosion of carbon steel embedded in bentonite under anoxic conditions N.R. Smart, A.P. Rance, B. Reddy, Amec, Harwell Oxford/UK; <u>N. Diomidis</u> , Nagra, Wettingen/CH
17:20	O-7429	Challenges related with the development of the closure plan for DNDR Baita Bihor România - corrosion monitoring <u>R. Fako</u> , RATEN - CITON, Magurele/RO; F. Dragolici, IFIN - HH, Magurele/RO; Gh. Barariu, F. Sociu, RATEN - CITON, Magurele/RO; E. Neacsu, IFIN - HH, Magurele/RO

Scientific lectures Programme - Thursday 11 September

17:40	O-7631	<p>Corrosion of carbon steel in the Callovo-Oxfordian claystone in the context of the French nuclear waste repository (in project) 1. Experimental set up and corrosion behaviour</p> <p><u>S. Necib</u>, ANDRA, Bure/F; D. Crusset, N. Michau, ANDRA, Chatenay/F; F. Foct, EDF, Moret-sur-Loing/F; M. Schlegel, CEA, Saclay/F; S. Daumas, CFG Services, Marseille/F; S. Dewonck, ANDRA, Bure/F</p>
18:00	O-7501	<p>Iron corrosion products (CP) impact on the long term alteration of fractured nuclear glass: effects of transport and CP stability</p> <p><u>L. Gentaz</u>, Commissariat à l'énergie atomique, Gif-sur-Yvette/F; D. Rebiscoul, Commissariat à l'énergie atomique, Bagnols-sur-Cèze/F; D. Neff, P. Dillmann, Commissariat à l'énergie atomique, Gif-sur-Yvette/F; S. Gin, Commissariat à l'énergie atomique, Bagnols-sur-Cèze/F</p>
		Corrosion by Hot Gases and Combustion Products
		Room D
Chairs		M. Schütze
10:00	O-7756	<p>Thermodynamic modelling of North Dakota lignite ash in air- and oxy-fuel fired boiler and comparison to collected ash from a 15MW boiler</p> <p><u>B. Bordenet</u>, Alstom (Switzerland) Ltd., Baden/CH; R. Ganta, A. Levasseur, Alstom Power Inc., Windsor, CT/USA</p>
10:20	O-7598	<p>Corrosion of welded coal boiler steels in oxyfuel flue gas</p> <p>A. Kranzmann, <u>M. Mosquera</u>, G. Oder, Bundesanstalt für Materialforschung und -prüfung, Berlin/D; P. Zimmer, Vattenfall Europe Generation AG, Cottbus/D; S. Rehfeldt, Hitachi Power Europe GmbH, Duisburg/D; F. Kluger, ALSTOM Boiler Deutschland GmbH, Stuttgart/D</p>
10:40	O-7544	<p>Hot corrosion in the next generation of industrial gas turbines</p> <p><u>A. Potter</u>, J. Sumner, N.J. Simms, J.E. Oakey, Cranfield University, Bedfordshire/UK</p>
11:00	O-7059	<p>Thermodynamic and kinetic modeling for predicting the microstructural evolution in MCrAlY coatings</p> <p><u>R. Pillai</u>, A. Chyrkin, V. Shemet, L. Singheiser, W.J. Quadackers, Forschungszentrum Jülich, Juelich/D; W.G. Sloof, Delft University of Technology, Delft/NL</p>
11:20		Coffee break
		Corrosion by Hot Gases and Combustion Products
		Room D
Chairs		M. Schütze
11:50	O-7781	<p>Corrosion of materials in nitrate melts for molten salt solar receivers</p> <p><u>M. Spiegel</u>, A. Kilic, Salzgitter Mannesmann Forschung GmbH, Duisburg/D</p>
12:10	O-7604	<p>High-temperature corrosion under conditions simulating biomass firing: depth-resolved phase identification</p> <p><u>S.C. Okoro</u>, TU of Denmark, Lyngby/DK; M. Montgomery, COWI A/S and TU of Denmark, Lyngby/DK; F.J. Frandsen, K. Pantleon, TU of Denmark, Lyngby/DK</p>

Scientific lectures Programme - Thursday 11 September

12:30	O-7539	The development of nickel alloys for high temperature applications in the process and energy sectors <u>S.A. McCoy</u> , Special Metals Corporation, Hereford/UK; B.A. Baker, G.D. Smith, L.E. Shoemaker, Special Metals Corporation, Huntington, WV/USA
12:50		WP 3 business meeting
13:30	Lunch	
Corrosion by Hot Gases and Combustion Products		Room D
Chairs	M. Schütze	
14:50	O-7109	Laser Raman microscopy study of the transition from high temperature alloy passivation to breakaway oxidation <u>D. Young</u> , T. Gheno, University of New South Wales, Sydney/AUS; <u>D. Monceau</u> , ENSIACET, Toulouse/F
15:10	O-7140	Oxidation mechanisms of alloy 602 CA in different gas atmospheres relevant to gas separation membranes <u>M. Schiek</u> , L. Niewolak, R. Vaßen, W.J. Quadackers, Forschungszentrum Jülich GmbH/D
15:30	O-7529	Grain boundary sulphidation of nickel-based alloys applied in high-efficient coal-power plants <u>M.M. Lange</u> , S. Borodin, F.U. Renner, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D; <u>M. Spiegel</u> , Salzgitter Mannesmann Forschung GmbH, Duisburg/D
15:50	O-7531	Effect of sulfur content on adhesion of thermal oxide scales grown on austenitic stainless steels <u>C. Pascal</u> , University of Grenoble/F; E. Fedorova, Siberian Federal University, Krasnoyarsk/RUS; V. Parry, M. Braccini, University of Grenoble/F; M. Mantel, Ugitech SA, Ugine/F; D. Oquab, University of Toulouse/F; Y. Wouters, University of Grenoble/F; D. Monceau, University of Toulouse/F
16:10	O-7147	The effect of SO₄²⁻ ions on the corrosion of 15CrMo steels during shutting down and their oxide scale formation Y. Meng, L. Zhang, <u>D.Q. Zhang</u> , L.X. Gao, Shanghai University of Electric Power/CHN
16:30	Coffee break	
Corrosion by Hot Gases and Combustion Products		Room D
Chairs	M. Schütze	
17:00	O-7561	Behaviour of 25wt.%Cr-containing Fe-based alloys strengthened by hafnium carbides in oxidation between 1000 and 1200°C <u>P. Berthod</u> , E. Conrath, University of Lorraine, Vandoeuvre-lès-Nancy/F

Scientific lectures Programme - Thursday 11 September

17:20	O-7252	Effect of minor strengthening additions in Ni-base superalloys on oxide scale formation in high pO₂ environments <u>W. Nowak</u> , A. Jalowicka, D. Naumenko, L. Singheiser, W.J. Quadackers, Forschungszentrum Jülich GmbH/D
17:40	O-7568	Influence of water vapour in air and of TaC carbides in alloy on the high temperature oxidation of cobalt-based refractory alloys L. Aranda, Th. Schweitzer, <u>P. Berthod</u> , University of Lorraine, Vandoeuvre-lès-Nancy/F; A. Navet, A. Leroy, Lycée Henri Loritz, Nancy/F
Corrosion in Aerospace		Room E
Chairs	T. Hack	
10:00	O-7421	Investigation into the impact of lithium additions on the corrosion response of Al-Cu alloys for aerospace applications <u>D. Carrick</u> , S. Hogg, G. Wilcox, Loughborough University/UK
10:20	O-7622	Effect of microstructure on the corrosion resistance of AA2524-T3 and AA2198 T-851 aluminum alloys used in the aeronautic industry A.F.S. Santos, S. Zaccarelli, IPEN/CNEN, São Paulo/BR; S.R. Araujo, CNPEM/LNLS, Campinas/BR; M. Terada, <u>I. Costa</u> , IPEN/CNEN, São Paulo/BR
10:40	O-7536	Corrosion resistance of direct metal laser sintering (DMLS) AlSiMg alloys <u>M. Cabrini</u> , S. Lorenzi, T. Pastore, Università di Bergamo, Dalmine/I; D. Manfredi, Center for Space Human Robotics @Polito, Torino/I; S. Biamino, Politecnico di Torino/I; P. Fino, C. Badini, Politecnico di Torino, Torino/I
11:00	O-7196	Effect of deicing compounds on aircraft materials <u>A. Bjørgum</u> , A.-K. Kvernbråten, A. Støre, SINTEF, Trondheim/N; T.A. Gustavsen, P.I. Lohne, G.W. Karlsen, Royal Norwegian Air Force, Kjeller/N
11:20	Coffee break	
Corrosion in Aerospace		Room E
Chairs	T. Hack	
11:50	O-7785	Surface treatments in space environment <u>A. Zapata</u> , Airbus Defence & Space, Toulouse/F

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12:10	O-7180	<p>Complex oxide morphologies by potentiodynamic anodizing of aluminium</p> <p>M. van Put, Delft University of Technology/NL; O. Elisseeva, <u>J. de Kok</u>, Fokker Aerostructures, Papendrecht/NL; S.T. Abrahami, Materials Innovation Institute, Delft/NL; J.M.C. Mol, Delft Technical University/NL; H. Terryn, Vrije Universiteit Brussel/B</p>
12:30	O-7784	<p>Application of surface wetness sensors for the evaluation of corrosivity of the atmosphere to aerospace aluminium alloys</p> <p>O.V. Startsev, <u>I.M. Medvedev</u>, All-Russian Scientific-Research Institute of Aviation Materials, Gelendzhik/RUS</p>
12:50	O-7577	<p>Choosing a corrosion prevention compound surface science helping to preserve aeronautical equipment</p> <p><u>C. Bilke-Krause</u>, Kruess GmbH, Hamburg/D; Chr. Rulison, Augustin Scientific, Newbury, OH/USA</p>
13:10	O-7803	<p>The prevention of corrosion and stress-corrosion cracking on European space programme</p> <p><u>T. Ghidini</u>, A. Tesch, A. Graham, European Space Agency, Noordwijk/NL</p>
13:30	Lunch	
Corrosion in Aerospace		Room E
Chairs		T. Hack
14:50	O-7179	<p>The role of anodic oxide chemistry in the interfacial bonding of aluminium in the aerospace industry</p> <p><u>S.T. Abrahami</u>, Materials Innovation Institute, Delft/NL and Delft Technical University/NL; J. de Kok, Fokker Aerostructures, Papendrecht/NL; J.M.C. Mol, Delft Technical University/NL; H. Terryn, Vrije Universiteit Brussel/B</p>
15:10	O-7208	<p>Plasma electrolytic oxidation processes for aeronautic applications and their technical application</p> <p><u>N. Godja</u>, M. Pölzer, A. Schindel, J. Wosik, A. Gavrilovic, Ch. Kleber, CEST GmbH, Wiener Neustadt/A</p>
15:30	O-7367	<p>Tartaric/sulphuric acid anodizing of aluminium-copper-lithium alloy AA2198</p> <p><u>A. Schindel</u>, N. Godja, T. Vanka, J. Wosik, Ch. Kleber, CEST - Competence Centre for Electrochemical Surface Technology, Wiener Neustadt/A</p>
15:50	O-7616	<p>Characterization and performance of passive layers generated from lithium based inhibitors for corrosion protection of AA 2024-T3</p> <p><u>P. Visser</u>, J.M.C. Mol, H. Terryn, Delft University of Technology/NL</p>

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16:10	O-7263	Experimental study of the effect of mass transfer on the efficiency of inhibitors released from an inhibited-primer F. Peltier, <u>R. Oltra</u> , Université de Bourgogne, Dijon/F; G. Zalamansky, Dassault Aviation, Saint Cloud/F
16:30 Coffee break		
Corrosion in Aerospace		Room E
Chairs	T. Hack	
17:00	O-7700	Advanced protective coatings for AA2024 alloys with combination of pH- sensitive active containers filed with corrosion inhibitors <u>D. Snihirova</u> , S.V. Lamaka, M.F. Montemor, University of Lisboa/P; P. Taheri, J.M.C. Mol, Delft University of Technology/NL
17:20	O-7749	Self-healing anticorrosive hybrid sol-gel coatings based on loaded nanocontainers for 2XXX serie aluminium alloys <u>R. Noiville</u> , M. Gressier, M-J. Menu, J-P. Bonino, S. Duluard, University Paul Sabatier, Toulouse/F; B. Fori, C. Gazeau, P. Bares, Mecaprotec Industries, Muret/F
17:40	O-7131	Silica mesoporous thin films hosting benzotriazole for protection of 2024 aluminum alloy - Study of healing mechanism <u>I. Recloux</u> , M. Mouanga, F. Khelifa, M-G. Olivier, University of Mons/B
18:00	O-7292	Eco-friendly primer treatments for corrosion protection of Al 2024 <u>I. Bertoli</u> , M. Trueba, S.P. Trasatti, Università degli Studi di Milano/I
Cathodic Protection		Room 4
Chairs	J. Cruzillac	
10:00	O-7489	Electrochemical investigation of carbon-based conductive coatings for application as anodes in ICCP system of reinforced concrete structures <u>G. Ebell</u> , M. Poltavtseva, J. Mietz, BAM Federal Institute for Materials Research and Testing, Berlin/D
10:20	O-7853	Examples of C.P. remote monitoring installations carried out by a european gas transmission company C. Aknouche, GRT GAZ, Compiègne Cedex/F; <u>C. Calvi</u> , TECNOSYSTEM GROUP, San Genesio ed Uniti/I
10:40	O-7413	Corrosion of cathodically polarized TSA in subsea mud at high temperature <u>O. Knudsen</u> , SINTEF, Trondheim/N; G. Clapp, G. Duncan, Woodside Energy Ltd., Perth/AUS; J. van Bokhorst, Shell Global Solutions International B.V., Amsterdam/NL
11:00	O-7833	Cased-pipeline: presentation and experience of annular space wax filling <u>P. de Bonnafos</u> , Trenton Europe, Paris/F

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11:20			Coffee break
Cathodic Protection			Room 4
Chairs		J. Crouzillac	
11:50	O-7080	The a.c. corrosion rate: A discussion of the influencing factors and the consequences on the durability of cathodically protected pipelines <u>M. Büchler</u> , SGK, Zürich/CH	
12:10	O-7148	Electrochemical phenomenon of a.c. corrosion likelihood of cathodically protected steel pipelines <u>F. Kajiyama</u> , Tokyo Gas Co., Ltd./J	
12:30	O-7333	Evaluation of ICCP system over API X52 steel tested in two types soils in the state of Campeche, Mexico C. Lazárraga, Universidad Autónoma de Campeche/MEX; L. Quej-Aké, A. Contreras, Instituto Mexicano del Petróleo, Distrito Federal/MEX; V. Moo-Yam, <u>T. Pérez</u> , Universidad Autónoma de Campeche/MEX	
12:50	O-7543	CORTracer TM, an innovative monitoring instrumentation for the ac corrosion risk assessment of cathodically protected buried pipelines <u>E. Fleury</u> , D. Caron, M. Meyer, GDF SUEZ, Saint Denis La Plaine/F; S. Fontaine, GRTgaz, Compiègne/F	
13:10	O-7518	Effects of anodic interference on carbon steel under cathodic protection condition <u>M. Ormellese</u> , A. Brenna, L. Lazzari, Politecnico di Milano/I; F. Brugnetti, APCE - Associazione per la Protezione dalle Corrosioni Elettrolitiche, Milano/I	
13:30			Lunch
Cathodic Protection			Room 4
Chairs		J. Crouzillac	
14:50	O-7834	Proposed method to define the maximal accepted error made in the metrology line of measurements <u>S. Fontaine</u> , GRTgaz, Compiègne Cedex/F	
15:10	O-7747	CP design of internal components <u>H. Osvoll</u> , J.C. Werenskiold, Force Technology Norway AS, Trondheim/N	
15:30	O-7694	Cathodic protection of extended sheet piling in soil. A practical case <u>U. Marinelli</u> , E. Barbaresi, F.M. Engineering Srl, Ancona/I	
15:50	O-7754	Cathodic protection assessment of oil storage tank farm M. Diminich, F. Mari, TAL SpA, Trieste/I; <u>B. Bazzoni</u> , G. Lecardi, T. Caglioni, F. Duranti, Cescor srl, Milan/I	

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16:10	O-7746	New tool for CP inspection H. Osvoll, <u>J.C. Werenskiold</u> , Force Technology Norway AS, Trondheim/N
16:30 Coffee break		
Cathodic Protection		Room 4
Chairs	J. Crouzillac	
17:00	O-7634	Soil side corrosion of storage tank bottom plate, failure causes and mitigation provisions <u>S. Afroukhteh</u> , M. Askari, D. Masouri, Pars Oil and Gas Company, Tehran/IR
17:20	O-7146	Sacrificial anode key design parameters for the internal surfaces of vessel, tank and structures <u>H. Sabri</u> , S. Al-Sulaima, Kuwait Oil Company, Ahmadi/KWT
Environment Sensitive Fracture		Room 2
Chairs	K. Wolski	
10:00	O-7490	Evaluating the pit-crack transition in an offshore pipeline steel <u>C. Evans</u> , R. Akid, University of Manchester/UK
10:20	O-7512	Critical analysis of the role of ferrite content in the environment- sensitive cracking of duplex stainless steels <u>R. Pettersson</u> , Jernkontoret- The Swedish Steel Producers' Association, Stockholm/S; S. Wessman, Swerea KIMAB, Kista/S
10:40	O-7210	Influence of nitrate ions concentration, pH and applied potential on the susceptibility to corrosion and stress corrosion cracking of α-β brass in NaNO_3 solutions <u>C. Berne</u> , CETIM / CIRIMAT, Nantes/F; E. Andrieu, Université de Toulouse - CIRIMAT, Toulouse/F; J. Reby, CETIM, Nantes/F; J.-M. Sobrino, CETIM, Senlis/F; C. Blanc, Université de Toulouse - CIRIMAT, Toulouse/F
11:00	O-7074	Mechanistic investigation of stress corrosion cracking of pipeline steel in near-neutral pH environment <u>R. Bogdanov</u> , A. Marshakov, V. Ignatenko, Russian Academy of Sciences, Moscow/RUS

Scientific lectures Programme - Thursday 11 September

11:20			Coffee break		
Environment Sensitive Fracture			Room 2		
Chairs		C. Evans			
11:50	O-7271	The relationships between microstructure and sulfide stress cracking resistance of high strength, low alloy OCTG steels W. Huang, ExxonMobil Development Company, Houston, TX/USA; F. Cao, ExxonMobil Research and Engineering Company, Clinton, NJ/USA; A. Aylor, W. Sun, ExxonMobil Development Company, Houston, TX/USA			
12:10	O-7806	Cathodic charging during hydrogen embrittlement testing Q. Liu, <u>A. Atrens</u> , The University of Queensland, Brisbane/AUS			
12:30	O-7391	The Kelvin probe: towards rapid, in-situ evaluation of HISC susceptibility and undercoating corrosion <u>E.F. Turcu</u> , Christian Michelsen Research AS, Bergen/N; M. Rohwerder, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D			
12:50	O-7446	Hydrogen induced stress cracking tests for offshore wind farm monopile foundations <u>D. Bangsgaard</u> , T. Mathiesen, C. Christensen, FORCE Technology, Brøndby/DK			
13:10	O-7586	Investigation on Nickel base superalloy stem turbine bolts, fractured at high temperatures, a case history G. Lovicu, R. Ishak, Pisa University/I; L. Rolla, <u>C. Dellabiancia</u> , CTS Srl, Ceparana/I			
13:30			Lunch		
Environment Sensitive Fracture			Room 2		
Chairs		A. Visser / C. Blanc			
14:50	O-7523	Analyses on coupled electrochemical noise and acoustic emission data applied on chloride stress corrosion cracking L. Calabrese, University of Messina/I; F. Cappuccini, <u>D. Di Pietro</u> , GE Oil & Gas, Florence/I; M. Galeano, E. Proverbio, University of Messina/I			
15:10	O-7688	Liquid metal embrittlement of the T91 steel in lead bismuth eutectic: effect of the loading rate and the oxygen content <u>I. Proriot Serre</u> , C. Ye, J-B. Vogt, Université Lille, Villeneuve d'Ascq/F			
15:30	O-7235	The effects of sulfide and flow rate on corrosion behavior of duplex steel 1.4462 in the artificial molasse basin fluid <u>J. Sobetzki</u> , R. Bäßler, BAM Federal Institute for Materials Research and Testing, Berlin/D; A. Boduch, FU Berlin/D			

Scientific lectures Programme - Thursday 11 September

15:50	O-7605	<p>Influence of testing parameters on type of damage under cyclic loading</p> <p><u>A. Visser</u>, G. Mori, Montanuniversität Leoben/A; H. Leitner, M. Kapp, R. Fluch, Böhler Edelstahl GmbH & Co. KG, Kapfenberg/A; B. Holper, Schoeller Bleckmann Oilfield Technology GmbH, Ternitz/A; M. Panzenböck, Montanuniversität Leoben/A</p>
16:10	O-7829	<p>CS-AFM study on the localized corrosion of 2507 duplex stainless steel</p> <p><u>L. Qiao</u>, M. Lin, L. Guo, University of Science and Technology Beijing/CHN</p>
16:30	Coffee break	
Environment Sensitive Fracture		Room 2
Chairs	K. Wolski	
17:00	O-7151	<p>The transition between sulfide stress cracking and stress corrosion cracking of the 2304 DSS as a function of T and pH in H₂S environment</p> <p>F. Ruel, S. Saedlou, Aperam R&D, Isbergues/F; S. Le Manchet, C. Lojewski, Industeel, Le Creusot/F; <u>K. Wolski</u>, Ecole des Mines de Saint Etienne/F</p>
17:20		WP 5 business meeting
Corrosion of Polymer Materials		Room 5
Chairs	J. Heinemann	
10:00	O-7660	<p>Application relevant polymer testing - impact of media on the viscoelastic behaviour of engineering polymers</p> <p><u>P. Guttman</u>, D. Oelzant, G. Pilz, Montanuniversität Leoben/A</p>
10:20	O-7072	<p>Compatibility of sealing materials with biofuels, biodiesel-heating oil blends and premium grade fuel at different temperatures</p> <p><u>M. Weltschev</u>, J. Werner, F. Heming, F. Jochems, Federal Institute for Materials Research and Testing (BAM), Berlin/D</p>
10:40	O-7248	<p>Monitoring the process of polymer degradation by imaging techniques</p> <p><u>T. Schuster</u>, S. Damodaran, K. Rode, R. Brüll, Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt/D; B. Gerets, M. Wenzel, M. Bastian, SKZ - German Plastics Center, Würzburg/D</p>
11:00	O-7820	<p>Lifetime analysis for plastic pipes by statistical evaluation of creep rupture data</p> <p><u>J. Heinemann</u>, H. Haupt, A. Bockenheimer, M. Oechsner, TU Darmstadt/D</p>

Scientific lectures Programme - Thursday 11 September

11:20		Coffee break
Corrosion of Polymer Materials		Room 5
Chairs	J. Heinemann	
11:50	O-7250	Fluoropolymers in corrosion resistance - long term experience opens a broad spectrum of applications <u>B. Neubauer</u> , Solvay Specialty Polymers, Brussels/B; <u>G. Maggi</u> , Solvay Specialty Polymers, Bollate/I
12:10	O-7188	Fluorothermoplastic-lined steel and FRP equipment for highly corrosive environments - an overview <u>M. Lotz</u> , Quadrant EPP AG, Lenzburg/CH
12:30	O-7251	Fluoropolymers in corrosion resistance - protective organic coatings based on ECTFE <u>B. Neubauer</u> , Solvay Specialty Polymers, Brussels/B; <u>G. Maggi</u> , Solvay Specialty Polymers, Bollate/I
12:50	O-7183	Corrosion of copper alloy fittings in a combined plastic/metal installation for hot drinking water <u>W. Erning</u> , BAM Federal Institute of Material Research and Testing, Berlin/D
13:10	O-7831	Innovative high corrosion resistant systems for chrome plating on plastics <u>L. Thiery</u> , COVENTYA Holding SAS, Villeneuve-la-Garenne/F; <u>H. Sahrhage</u> , COVENTYA GmbH, Gütersloh/D; <u>D. Dal Zilio</u> , G.L. Schiavon, COVENTYA S.p.A., Villorba/I
13:30		Lunch
Corrosion of Polymer Materials		Room 5
Chairs	J. Heinemann / J.W. Erning	
15:30		WP 19 & WP 20 business meeting

Scientific lectures Programme - Friday 12 September

Plenary Session		
9:15		Cavallaro Medal Award and lecture (O-7860) Development of inhibitor-containing zeolites for protection coatings M.G.S. Ferreira, University of Aveiro, Aveiro/P
9:45		Break for Changing Lecture Hall
Organic Coatings		Auditorium
Chairs F. Montemor / I. De Graeve		
10:00	O-7608	Anticorrosion atmospheric plasma coatings for metal protection I. De Graeve, A. Kakaroglou, G. Scheltjens, Vrije Universiteit Brussel/B; B. Nisol, Université Libre de Bruxelles/B; G. Van Assche, B. Van Mele, Vrije Universiteit Brussel/B; F. Reniers, Université Libre de Bruxelles/B; H. Terry, Vrije Universiteit Brussel/B
10:20	O-7223	Electrochemical properties of graphene/epoxy coating T. Monetta, A. Acquesta, F. Bellucci, University of Naples/I
10:40	O-7669	Advanced functional ormosil coatings modified with conductive fillers for corrosion protection of Mg alloys F. Montemor, D. Snihirova, B. Martins, A. Zomorodian, Y. Morozov, Instituto Superior Técnico, Lisboa/P; S. Piçarra, Instituto Politécnico de Setúbal/P
11:00	O-7810	A new composite coating for corrosion protection of AZ31 and RZ5 magnesium alloys M.C. Ferreira, A. Zomorodian, M.F. Montemor, J.C.S. Fernandes, Instituto Superior Técnico, Lisbon/P
11:20 Coffee break		
Organic Coatings		Auditorium
Chairs F. Montemor / I. De Graeve		
11:50	O-7452	Elaboration of bisphenol A polybenzoxazine coatings for barrier protection applications on aluminum substrate J. Escobar, M. Poorteman, University of Mons/B; L. Dumas, L. Bonnaud, P. Dubois, Materia Nova Research Center, Mons/B; M.G. Olivier, University of Mons/B
12:10	O-7547	Poly(3,4-ethylenedioxythiophene)-poly(styrene sulfonate) as a primer coating for the inhibition of corrosion driven cathodic delamination and filiform corrosion on iron C. Glover, G. Williams, Swansea University/UK and SPECIFIC, Port Talbot/UK
12:30	O-7751	Structure property relationships in highly structured composite layers as corrosion protection coatings on mild steel C. Becker-Willinger, S. Schmitz-Stoewe, M. Opsoelder, M. Jochum, S. Albayrak, E. Perre, INM - Leibniz Institute for New Materials gGmbH, Saarbrücken/D

Scientific lectures Programme - Friday 12 September

12:50	O-7177	Possibilities of ex situ IR and in situ Raman spectroscopies for investigation of sol-gel anticorrosion coatings during anodic polarisation <u>A. Surca Vuk</u> , M. Rodosek, A. Rauter, L. Slemenik Perse, National Institute of Chemistry, Ljubljana/SLO; D. Kek Merl, Institute Jozef Stefan, Ljubljana/SLO
13:10	O-7366	Inorganic-organic hybrid(TiO₂-MAPTS) coating on carbon steels for corrosion inhibition <u>W. Maeng</u> , G. Song, M. Kim, Korea Atomic Energy Research Institute, Daejeon/ROK; J. Noh, Korea University of Technology and Education, Cheonan/ROK; M. You, Chungnam University, Daejeon/ROK
13:30		Break for Changing Lecture Hall
13:40		Closing Remarks: prof. L. Lazzari, prof. L. Fedrizzi Auditorium
13:50		End of Scientific Programme
		Corrosion Mechanisms, Methods and Modelling Fermi Hall
Chairs		J. Deconinck / G. Mori
10:00	O-7602	Investigation of passive layers on SiC-based ceramics by electrochemical impedance spectroscopy <u>M. Schneider</u> , K. Kremmer, K. Sempf, M. Herrmann, Fraunhofer IKTS, Dresden/D
10:20	O-7142	Corrosion layer growth on magnesium galvanic coupled to aluminium simulated by FEM <u>D. Höche</u> , Helmholtz-Zentrum Geesthacht/D
10:40	O-7243	Nanosopic view on the initial stages of corrosion of hot dip galvanized Zn-Mg-Al coatings <u>J. Duchoslav</u> , M. Arndt, University of Linz/A; T. Keppert, G. Luckeneder, K.H. Stellnberger, J. Hagler, C.K. Riener, G. Angeli, voestalpine Stahl GmbH, Linz/A; D. Stifter, University of Linz/A
11:00	O-7549	The effects of oxygen concentration and pH on the galvanic protection of tin <u>S. Geary</u> , H.N. McMurray, Swansea University/UK; A.C.A. de Vooy, TATA Steel, Ijmuiden/NL; N. Wint, Swansea University/UK
11:20	Coffee break	
		Corrosion Mechanisms, Methods and Modelling Fermi Hall
Chairs		J. Deconinck / G. Mori
11:50	O-7132	Mechanism of corrosion protection of zinc-magnesium coatings on steel studied by electrochemical depth profiling <u>J. Rodriguez</u> , M. Mouanga, University of Mons/B; A. Lanzutti, F. Andreatta, L. Fedrizzi, University of Udine/I; M.-G. Olivier, University of Mons/B

Scientific lectures Programme - Friday 12 September

12:10	O-7202	Corrosion features of the PEO-coated magnesium alloys <u>A. Gnedenkov</u> , S. Sinebryukhov, D. Mashtalyar, S. Gnedenkov, Far Eastern Branch of Russian Academy of Sciences, Vladivostok/RUS
12:30	O-7477	A novel method to study corrosion resistance of galvanised steel against corrosive dropping electrolytes <u>S. Ziebermayr</u> , Center of Electrochemical Surface Technology, Wiener Neustadt/A; M. Fleischanderl, G. Haslehner, K.H. Stellnberger, voestalpine Stahl GmbH, Linz/A; A.W. Hassel, University of Linz/A
12:50	O-7434	Hydrogen diffusion mechanism in nickel base alloy 718 <u>O. Golenishcheva</u> , G. Andersohn, M. Oechsner, TU Darmstadt/D; J. Kloewer, A. Aghajani, Outokumpu VDM, Altena/D
WS: CO₂-Corrosion in Industrial Applications		Pacinotti Hall
Chairs		R. Bäßler / A. Dugstad
10:00	O-7811	Mitigating corrosion in sweet gas units: a comparison between laboratory data and field survey <u>J. Kittel</u> , IFP Energies nouvelles, Solaize/F; M. Bonis, Total, Pau/F; G. Perdu, Prosernat, Paris La Défense/F
10:20	O-7743	Corrosive and protective behaviour of MEA in dense phase CO₂ <u>A. Dugstad</u> , M. Halseid, B. Morland, Institute for Energy Technology, Kjeller/N
10:40	O-7456	Thermally sprayed corrosion resistant alloy coatings on carbon steel for use in CCS <u>S. Paul</u> , TWI, Cambridge/UK
11:00	O-7524	Effect of microstructure on scale protectiveness and corrosion rate of carbon steel in CCTS environments M. Cabrini, <u>S. Lorenzi</u> , T. Pastore, Università di Bergamo, Dalmine/I
11:20		Coffee break
WS: CO₂-Corrosion in Industrial Applications		Pacinotti Hall
Chairs		R. Bäßler / A. Dugstad
11:50	O-7744	Safe transport of dense phase CO₂ - how much flue gas impurities can be accepted? A. Dugstad, M. Halseid, <u>B. Morland</u> , Institute for Energy Technology, Kjeller/N
12:10	O-7157	Corrosion susceptibility of steels under transport and injection exploitation conditions possible in CCS process chain <u>O. Yevtushenko</u> , R. Bäßler, D. Bettge, BAM Federal Institute for Materials Research and Testing, Berlin/D
12:30		EFC Task Force: CO₂ corrosion in CCS-Applications business meeting

Scientific lectures Programme - Friday 12 September

Nuclear Corrosion		Room C
Chairs		P. Rebak / S. Lyon
10:00	O-7156	Galvanic corrosion of carbon steel under argillite layers in carbonated media A. Romaine, R. Sabot, M. Jeannin, Ph. Refait, La Rochelle University/F
10:20	O-7603	Surface analytical and electrochemical measurements on Cu-coated steel specimens R. Partovi-Nia, D.W. Shoesmith, Western University, London/CDN; R. Jacklin, Surface Science Western, London/CDN; J. Chen, D. Zagidulin, Western University, London/CDN; S. Ramamurthy, Surface Science Western, London/CDN; P.G. Keech, Nuclear Waste Management, Toronto/CDN
10:40	O-7381	Corrosion behaviour of Mg alloys cladding from nuclear reactors fuel in alkaline solutions J. Agullo, B. Muzeau, C. Bataillon, V. L'Hostis, CEA Saclay, Gif-sur-Yvette/F
11:00	O-7505	Advanced Al₂O₃ coatings under extreme conditions F. García Ferré, Istituto Italiano di Tecnologia, Milano/I; M. Ormellese, M. Beghi, Politecnico di Milano/I; F. Di Fonzo, Istituto Italiano di Tecnologia, Milano/I
11:20 Coffee break		
Nuclear Corrosion		Room C
Chairs		D. Féron / Th. Couvant
11:50	O-7659	Oxidation of 316L(N) stainless steel in liquid sodium at high temperature M. Rivollier, J.L. Courouau, CEA Saclay, Gif-sur-Yvette/F; M.L. Giorgi, ECP, Chatenay-Malabry/F
12:10	O-7486	Corrosion of carbon steel in the Callovo-Oxfordian claystone in the context of the French nuclear waste repository (in project). 2. structural organization of corrosion products M.L. Schlegel, CEA, Gif-sur-Yvette/F; S. Necib, ANDRA, Bure/F; S. Dumas, CFG Services, Marseille/F; C. Blanc, E. Foy, CEA, Gif-sur-Yvette/F; D. Crusset, N. Michau, ANDRA, Châteny-Malabry/F
12:30	O-7665	Corrosion behaviour of structural steels exposed in supercritical water J. Macák, P. Sajdl, A. Krausová, V. Bystrianský, L. Tuma, ICT, Praha/CZ; E. Krečanová, M. Zychová, CVR s.r.o., Rez u Prahy/CZ
12:50		WP 4 Poster Prize
Coatings for High Temperatures		Room D
Chairs		M. Galetz
10:00	O-7168	Metal dusting protection by a novel coating, providing a classical oxide barrier as well as catalytic inhibition S. Madloch, M.C. Galetz, M. Schütze, DECHEMA-Forschungsinstitut, Frankfurt am Main/D

Scientific lectures Programme - Friday 12 September

10:20	O-7414	Combination of CVD coatings and halogen effect to prevent high-temperature embrittlement in titanium aluminides <u>J. Grüters</u> , M.C. Galetz, M. Schütze, DECHEMA-Forschungsinstitut, Frankfurt am Main/D
10:40	O-7115	Surface modification of thermal barrier coatings by diffused and laser and phosphate treatments <u>M. Shoeib</u> , CMRDI, Cairo/ET; K. Ahmed, Arab Institute for Advanced Technology, Cairo/ET
11:00	O-7316	Improvement of turbine blade by using protective ceramic coating <u>S. Sohrobi</u> , Azad University of Najaf Abad, Isfahan/IR; A. Saatchi, Isfahan University of Technology, Isfahan/IR; R. Ebrahimi, Azad University of Najaf Abad, Isfahan/IR
11:20 Coffee break		
WS: Multimaterials in Hybrid Structures for Automotive and Aerospace Applications Corrosion Prevention		Room E
Chairs		F. Hannour / T. Hack
10:00	O-7170	Corrosion investigations of ultrasound supported friction stir welded Al/Mg-hybrid joints <u>S. Benfer</u> , DECHEMA-Forschungsinstitut, Frankfurt am Main/D; B. Straß, G. Wagner, TU Kaiserslautern/D; W. Fürbeth, DECHEMA-Forschungsinstitut, Frankfurt am Main/D
10:20	O-7643	Study of the corrosion behaviour of friction stir welded AA 2024-T3 using global and local electrochemical techniques <u>C. Molena de Assis</u> , I.V. Aoki, Sao Paulo University/BR; V. Vivier, University Pierre et Marie Curie, Paris/F
10:40	O-7257	Active self-healing coating for galvanically coupled multi-material assemblies M. Serdechnova, S. Kallip, D. Vieira, L.F.S. Barbosa, M.G.S. Ferreira, <u>M.L. Zheludkevich</u> , University of Aveiro/P
11:00	O-7789	A controlled experimental approach of the effect of confinement on the damage inside an aluminium alloy lap joint T.M.L. Le, <u>R. Oltra</u> , A. Zimmer, Université de Bourgogne, Dijon/F
11:20 Coffee break		
WS: Multimaterials in Hybrid Structures for Automotive and Aerospace Applications Corrosion Prevention		Room E
Chairs		F. Hannour / T. Hack
11:50	O-7786	Corrosion behaviour of titanium in lightweight construction <u>S. Wibihal</u> , CEST, Wiener Neustadt/A; G. Faflek, Vienna University of Technology/A; T. Hack, Airbus Group Innovations, Munich/D; M. Beneke, Airbus Operations, Bremen/D

Scientific lectures Programme - Friday 12 September

12:10	O-7640	Inhibitor-enriched composite protective coating for WE43 magnesium alloy S. Lamaka, M. Lourenço, Instituto Superior Tecnico, Lisbon/P; D. Ivanou, M. Zheludkevich, M. Ferreira, University of Aveiro/P; T. Hack, EADS Innovation Works, Munich/D
12:30	O-7415	The influence of hot forming on the microstructure and corrosion behaviour of magnesium alloy J. Alias, X. Zhou, G.E. Thompson, University of Manchester/UK
12:50	O-7198	In-situ Al/TiC nanocomposites: the effect of sintering temperature on the corrosion behavior B. Dikici, Yuzuncu Yil University, Van/TR; M. Gavgali, Ataturk University, Erzurum/TR; F. Bedir, Suleyman Demirel University, Isparta/TR; T. Kiyak, Gazi University, Ankara/TR

JS: Interplay of Mechanics and Corrosion in Surface and Bulk Degradation**Room 4****Chairs****M. Keddam / P. Ponthiaux**

10:00	O-7528	Kinetic of passivation of two stainless steel microstructures under tribocorrosion solicitations V. Dalbert, N. Mary, B. Normand, C. Verdu, INSA-Lyon, Villeurbanne/F; S. Saedlou, APERAM Research Center, Isbergues/F
10:20	O-7532	Tribocorrosion behaviour of stainless steel under cathodic potential N. Mary, V. Dalbert, N. Normand, B. Ter-Ovanessian, T. Borgna, L. Lefebvre, INSA-Lyon, Villeurbanne/F; S. Saedlou, APERAM Research Center, Isbergues/F
10:40	O-7630	The effect of surface condition on the friction coefficient of different dental archwires T. Kosec, P. Mocnik, Slovenian National Building and Civil Engineering Institute, Ljubljana/SLO; U. Mezeg, J. Primožic, University of Ljubljana/SLO; A. Legat, Slovenian National Building and Civil Engineering Institute, Ljubljana/SLO
11:00	O-7798	New advances and perspectives in the electrochemical study of tribocorrosion M. Keddam, Université Pierre et Marie Curie, Paris/F; P. Ponthiaux, Ecole Centrale, Châtenay/F; V. Vivier, Université Pierre et Marie Curie, Paris/F

11:20

Coffee break

Scientific lectures Programme - Friday 12 September

JS: Interplay of Mechanics and Corrosion in Surface and Bulk Degradation		Room 4
Chairs		M. Keddam / P. Ponthiaux
11:50	O-7687	Sensitivity to liquid metal embrittlement of the T91 steel by the liquid sodium : influence of the pre-immersion in liquid sodium I. Proriol Serre, O. Hamdane, J-B. Vogt, Université Lille 1, Villeneuve d'Ascq/F; J.-L. Courouau, CEA-Saclay/F
12:10	O-7772	Tribocorrosion effects on offshore mooring chain steel A. Lopez, F. Pagano, R. Bayon, A. Igartua, IK4-Tekniker, Eibar/E
Corrosion Education		Room 2
Chairs		A. Heyn / S. Trasatti
10:00	KN-7830	Corrosion awareness education a key for a better environment A. Eliezer, G. Hays, E.H. Han, E. Leining, W. Burns, World Corrosion Organization, New York, NY/USA
10:40	O-7062	Corrosion education: present and future A. Groysman, Israeli Society of Chemical Engineers & Chemists, Tel Aviv/IL
11:00	O-7713	Corrosion education in the framework of knowledge management G. Gabetta, Eni E&P Division, San Donato Milanese/I
11:20	Coffee break	
Corrosion Education		Room 2
Chairs		A. Heyn / S. Trasatti
11:50	O-7709	The way to teaching corrosion based on visual inspection: student's opinions M.V. Biezma, University of Cantabria, Santander/E; S. Braunstein Faldini, Universidade Presbiteriana Mackenzie, São Paulo/BR
12:10	O-7206	Corrosion test rig for the amelioration of the service life of industrial components M. Franchi, Tetra Pak Packaging Solutions, Modena/I; R. Cigna, O. Fumei, Isproma, Roma/I; P. Pranovi, Ecor Research, Schio/I
12:30		WP 7 business meeting

Poster programme

Cathodic Protection	
7041	EPIC new 16" Jet A1 fuel pipeline (external coating case study) <u>N. Hamdy</u> , PETROJET, Cairo/ET
7739	Impressed current cathodic protection (ICCP) Ti-MMO grid system for 61 m diameter methanol tank <u>F. Al-Fawaz</u> , Saudi Basic Industries Cooperation-SABIC, Jubail Industrial City/SAR
Coatings for High Temperatures	
7732	Wavelet transform electrochemical noise analysis for intermetallic coatings at 750 °C in molten salt environment A. Garcia, Universidad de Sonora/MEX; E.F. Díaz, <u>S. Serna</u> , J. Colin, A. Torres-Islas, M.A. Lucio-Garcia, Universidad Autónoma del Estado de Morelos, Cuernavaca/MEX
7588	Development of Fe doped Ni-Co spinel for use in SOFC interconnects <u>A. Bervian</u> , G.A. Ludwig, M.A. Korb, C.F. Malfatti, University Federal of Rio Grande do Sul, Porto Alegre/BR
7574	Influence of CaO and CeO₂ coatings on the oxidation of nickel polycrystals <u>Z. Halem</u> , Bouira University/DZ; N. Halem, Tizi-Ouzou University/DZ; S. Chekroude, Constantine University/DZ; M. Abrudeanu, Pitesti University/RO; G. Petot-Ervas, Ecole Centrale des Mines, Paris/F
7667	The effect of the a double coating layer-oxide phase (NiFe₂O₄) combined with perovskite phase (La_{0.6}Sr_{0.4}CoO₃) on a ferritic stainless steel D.A.S. Lima, <u>G.A. Ludwig</u> , M.A. Korb, A. Bervian, C.F. Malfatti, I.L. Müller, Federal University of Rio Grande do Sul, Porto Alegre/BR
7668	Oxidation resistance ferritic stainless steel AISI 430 coated with spinel based Fe doped Ni-Co <u>A. Bervian</u> , G.A. Ludwig, M.A. Korb, C.F. Malfatti, Federal University of Rio Grande do Sul, Porto Alegre/BR
Corrosion & Corrosion Protection of Drinking Water Systems	
7396	Failure analyses of localised corrosion damages on stainless steels - practical examples I. Juraga, V. Alar, <u>V. Simunovic</u> , I. Stojanovic, University of Zagreb/HR
7405	Investigations of the corrosion behaviour of stainless steel in contact with ECA-generated disinfectant fluids <u>M. Dimper</u> , A. Ahrens, S. Reimann, BAM - Federal Institute of Material Research and Testing, Berlin/D
7738	Failure analysis of firewater pipeline <u>S. Al Subai</u> , K. Barai, M. Esteban, Saudi Basic Industries Corporation (SABIC), Jubail/SAR
7281	In-plant corrosion investigation on steels in distillery effluents <u>A. Singh</u> , C. Sharma, C. Ram, I.I.T. Roorkee, Saharanpur/IND

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7609	Biocorrosion evolution in a laboratory copper pipe ageing system D. Fischer, L. Daille, C. Galarce, R. De la Iglesia, G. Pizarro, I. Vargas, Pontificia Universidad Católica de Chile, Santiago/RCH
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7182	Corrosion resistance of austenitic and duplex stainless steels in chloride containing alkaline environments H. Peltola, M. Martikainen, M. Lindgren, Outotec Research Center, Pori/FIN
7212	Adsorption and passivation of copper in neutral solutions by some heterocyclic corrosion inhibitors M.O. Agafonkina, Y.I. Kuznetsov, N.P. Andreeva, Institute of Physical Chemistry and Electrochemistry RAS, Moscow/RUS
7748	Conversion coatings of lanthanide salts on aluminium alloy as a potential replacement of chromate coatings B. Volaric, I. Milosev, Jozef Stefan Institute, Ljubljana/SLO
7461	Green corrosion inhibition from aqueous extract of <i>Zygophyllum album</i> L for carbon steel in hydrochloric acid medium H. Derfouf Talbi, Bechar University/DZ; Y. Harek, Abou Bakr Belkaid, Tlemcen/DZ
7163	Novel cationic surfactant based on triazole as a corrosion inhibitor for carbon steel in phosphoric acid produced by dihydrated wet process M.A. Hegazy, Egyptian Petroleum Research Institute (EPRI), Cairo/ET
7294	Effect of Zr on intergranular corrosion of low Cr ferritic stainless steel J.H. Park, K.Y. Kim, Pohang University of Science and Technology/ROK
7325	Orange peel as green corrosion inhibitor - assessment of hesperidin, naringin and synephrine efficiency M.V.C. Monteiro, J.C. Rocha, J.A.C. Ponciano Gomes, Federal University of Rio de Janeiro/BR
7517	Influence of the lithium molybdate inhibitor on the corrosion resistance of a duplex stainless steel in LiBr absorption machine M.J. Muñoz-Portero, J. Rubio-Cervera, R. Leiva-García, J. García-Antón, Universidad Politecnica de Valencia/E
7558	2HEABu corrosion-inhibitor action in aggressive medium on API X70 substrate M.R. Ortega Vega, S.R. Kunst, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR; S. Mattedi, M. Iglesias, Universidade Federal da Bahia, Salvador/BR; C.F. Malfatti, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR
7567	Inhibition efficiency of 3,4-diaminobenzonitrile against steel corrosion G. Sigircik, T. Tüken, M. Erbil, Çukurova University, Adana/TR
7596	Electrochemical study of the inhibitive effect a new prepared quinoline derivative on the corrosion of steel in 3.5% NaCl solution N. Hassan, City of Scientific Research and Technology Applications, Alexandria/ET; N.A. Abdelghany, National Research Center, Cairo/ET; R.M. El-Shishtawy, King Abdulaziz University, Jeddah/SAR; S. Khalil, Alexandria University/ET

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7126	Rosmarinus officinalis use as eco-friendly corrosion inhibitor carbon steel in acid solution M.A. Velázquez-González, J.G. Gozález-Rodríguez, M.G. Valladares-Cisneros, Universidad Autónoma del Estado de Morelos/MEX
7814	The effect of chloride concentration on copper protection N. Kıcır, T. Tüken, M. Erbil, Çukurova University, Adana/TR
7164	Three novel bolaamphiphiles as corrosion inhibitors for carbon steel in hydrochloric acid: experimental and computational study M.A. Hegazy, Egyptian Petroleum Research Institute (EPRI), Cairo/ET; M.K. Awad, Tanta University/ET
7689	Environmentally friendly carboxylate inhibitors for heating and cooling (HVAC) systems M. Ahmed, The Manchester University/UK
7710	Corrosion inhibition of ground anchors steel in HCl by H₂S-scavenger in HCl solution J. Malina, University of Zagreb, Sisak/HR; F. Kapor, University of Zagreb, Zagreb/HR; A. Begić Hadzipasic, University of Zagreb, Sisak/HR
7324	Corrosion inhibition of steel boiler by use of three amino alcohols A. Merati, M.A. Bellouchrani, S. Mokdad, Polytechnic Military School, Algiers/DZ
7745	Combination of stearic acid and benzotriazole as corrosion inhibitors for Cu and Cu40Zn in artificial urban rain G. Zerjav, I. Milosev, Jozef Stefan Institute, Ljubljana/SLO
7324	Corrosion inhibition of steel boiler by use of three amino alcohols A. Merati, M.A. Bellouchrani, S. Mokdad, Polytechnic Military School, Algiers/DZ
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7573	Effect of the presence of water vapour on the high temperature oxidation of Co-10Ni-30Cr and Co-10Ni-30Cr-0.5C alloys A. Leroy, A. Navet, Lycée Henri Loritz, Nancy/F; Th. Schweitzer, L. Aranda, P. Berthod, University of Lorraine, Vandoeuvre-lès-Nancy/F
7575	Carbide transformations occurring between 1000 and 1100°C in the sub-surface of a Ni-25Cr-0.50C alloy induced by hot oxidation P. Berthod, E. Conrath, University of Lorraine, Vandoeuvre-lès-Nancy/F
7615	Kinetic of oxidation of chromium-rich HfC-containing Co-based and Ni-based alloys between 1000 and 1100°C E. Conrath, P. Berthod, University of Lorraine, Vandoeuvre-lès-Nancy/F
7535	Effect of sulfur on the KCl-induced high temperature corrosion of selected Fe-based and Ni-based alloys S. Kiamehr, K.V. Dahl, TU of Denmark, Lyngby/DK; T. Jonsson, Chalmers University of Technology, Göteborg/S; M. Montgomery, M.A.J. Somers, TU of Denmark, Lyngby/DK

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7611	<p>Kinetic of oxidation at 1000, 1100 and 1200°C of 32.5wt.% Cr-containing Co-based alloys reinforced by hafnium carbides <u>E. Conrath</u>, P. Berthod, University of Lorraine, Vandoeuvre-lès-Nancy/F</p>
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7715	<p>Characterization of corrosion resistance of chromium-free coatings for aeronautical application L. Belsanti, CNR-ISMAR, Genoa/I; E. Forchin, Agusta Westland, Varese/I; R. Stifanese, <u>M. Toselli</u>, P. Traverso, CNR-ISMAR, Genoa/I</p>
7760	<p>Anticorrosion sol-gel coatings for anodised aluminium <u>M. Oubaha</u>, Dublin Institute of Technology/IRL</p>
7680	<p>A study of the films formed on an AA2024 alloy clad layer by hydrothermal treatments involving cerium (III) and propylene glycol W.I.A. Santos, <u>V.R. Capelossi</u>, IPEN/CNEN, São Paulo/BR; S. Hinder, M.A. Baker, R. Grilli, University of Surrey, Guildford/UK; I. Costa, IPEN/CNEN, São Paulo/BR</p>
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7214	<p>The influence of temperature on corrosion behavior of chromium steels in CO₂-containing environments I.Yu. Pyshmintsev, <u>I.V. Kostitsyna</u>, V.P. Parshukov, RosNITI, Chelyabinsk/RUS; A.G. Tyurin, Chelyabinsk State University/RUS</p>
7328	<p>Hydrogen induced cracking of austenitic-ferritic stainless steels SAF 2205 and SAF 2507 <u>S. Silva</u>, J.A.C.P. Gomes, Federal University of Rio de Janeiro/BR</p>
7336	<p>Corrosion process of API 5L X52 in production water from oil well <u>O. Olivares-Xometl</u>, Benemérita Universidad Autónoma de Puebla/MEX; M. Mónica Corrales-Luna, Instituto Politécnico Nacional, Distrito Federal/MEX; N.V. Likhanova, Instituto Mexicano del Petróleo, Distrito Federal/MEX; J.M Hallen, I.V. Lijanova, Instituto Politécnico Nacional, Distrito Federal/MEX</p>
7494	<p>Assessment of localized corrosion resistance of 13Cr, 15Cr and 17Cr stainless steels in high chloride and CO₂ environments <u>E. Senatore</u>, J.A.C.P. Gomes, Federal University of Rio de Janeiro/BR</p>
7569	<p>Corrosion resistance of rolled and rerolled supermartensitic steel in media containing chlorides and hydrogen sulfide R. Braga Soares, D.C. de Sousa Garcia, M. Mendonça Lima, M.M. Reis de Castro, <u>V. de Freitas Cunha Lins</u>, University of Minas Gerais, Belo Horizonte/BR</p>

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7813	<p>Improvement of 9% nickel steel for CO₂ reinjection in FSPOS and its corrosion resistance in brazilian pré-salt conditions - SSC and HIC R. Kalume, Vallourec Tubos do Brasil, Belo Horizonte/BR; L.I.L. Lima, Vallourec Tubos do Brasil, Rio de Janeiro/BR; M.C. Ferreira, Vallourec Tubos do Brasil, Belo Horizonte/BR; B.I. Palmieri, G.V. Silva, C.R. D'Ávila, Petrobras S.A., Rio de Janeiro/BR; <u>J.A. Carreno Velasco</u>, R.V. Landim, S.M. de Souza, Instituto Nacional de Tecnologia, Rio de Janeiro/BR</p>
7079	<p>Influence of molybdenum on UNS S32304 and UNS S31803 duplex stainless steels corrosion resistance <u>A. Viana</u>, Aperam South America Research Center, Timóteo/B and Universidade Federal do Rio de Janeiro/BR; T. Oliveira, Aperam South America Research Center, Timóteo/BR; O. Mattos, K. Assis, Universidade Federal do Rio de Janeiro/BR</p>
7654	<p>Effect of AC frequency on stress corrosion cracking behavior of X80 pipeline steel in carbonate/bicarbonate solution <u>C. Du</u>, M. Zhu, X. Li, Z. Liu, University of Science and Technology Beijing/CHN</p>
7047	<p>The influence of heat treatment on the corrosion behaviour of Inconel 718 L.C.M. Valle, UFRJ and Petrobras, Rio de Janeiro/BR; <u>A.I.C. Santana</u>, UEZO, Rio de Janeiro/BR; L.H. de Almeida, O.R. Mattos, UFRJ, Rio de Janeiro/BR</p>
7777	<p>A study by in situ Raman spectroscopy of carbon steel corrosion in CO₂ and H₂S environment O. Delpoux, J. Kittel, <u>F. Grosjean</u>, IFP Energies Nouvelles, Solaize/F; S. Joiret, CNRS, Paris/F; N. Desamais, C. Taravel-Condat, Technip, Le Trait/F</p>
7859	<p>Inhibitory protection of the installations of the oil-refining enterprises from corrosion V.M. Abbasov, <u>L.I. Alieva</u>, T.A. Ismailov, Yu.G. Mamedaliev, National Academy of Sciences of Azerbaijan/AZ</p>
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7721	<p>Corrosion resistance of austenitic steels used in biodiesel fuel plant A.P. Pereira, Fiat Automobile S.A., Betim/BR; V.F.C. Lins, <u>M.M.R. Castro</u>, Federal University of Minas Gerais, Belo Horizonte/BR; C.E.A.S. Torres, Petrobras Biofuel, Montes Claros/BR</p>
7720	<p>Corrosion of steels used in a biodiesel fuel plant A.P. Pereira, Fiat Automobile S.A., Betim/BR; <u>V.F.C. Lins</u>, C.G.F. Costa, M.M.R. Castro, C.E.A.S. Torres, Federal University of Minas Gerais, Belo Horizonte/BR</p>
7645	<p>In situ AFM and FTIR spectroscopy coupled with electrochemical techniques studies on naphthenic corrosion of API 5L X70 steel <u>E.C. Rios</u>, A.L. Oliveira, A.M. Zimer, R.G. Freitas, R. Matos, L.H. Mascaró, E.C. Pereira, UFSCar, São Carlos/BR</p>
7858	<p>Detection and Sizing of Corrosion under Fireproofing (CUF) with Welded Wire Mesh Using MR-MWM-Array S. A. Dossary, <u>A. Minachi</u>, Saudi Aramco, Dhahran/KSA N. Goldfine, Scott Denenberg, JENTEK Sensors, Waltham/USA</p>

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7068	<p>Application of ENM to investigate the effect of different materials and methods of preparation of coating on anticorrosion quality of ZRP <u>B. Eremias</u>, L. Mindos, L. Turek, SVUOM Ltd., Prague/CZ; L. Hochmannova, SYNPO Inc., Pardubice/CZ</p>
7155	<p>Corrosion resistance of cold worked CrNi and CrNiMnN metastable austenites in defined strain states <u>P. Seemann</u>, WITg, Tägerwilten/CH; P. Gümpel, HTWG Konstanz/D</p>
7175	<p>Nanoscale oxide growth on nickel studied by reactive molecular dynamics <u>O. Assowe</u>, L. Van Brutzel, A. Chartier, CEA de Saclay, Gif-sur-Yvette/F</p>
7404	<p>Corrosion studies by depth profiling techniques <u>C. Olivero</u>, P. Chapon, A. Tempez, S. Legendre, Horiba Jobin-Yvon SAS, Longjumeau/F</p>
7406	<p>Influence of surface treatments on localized corrosion behaviour of welded AISI 316L stainless steel M. Halamová, University of Zilina/SK; G. Fumagalli, Politecnico di Milano/I; T. Liptáková, University of Zilina/SK; <u>F. Bolzoni</u>, Politecnico di Milano/I</p>
7409	<p>Comparitive corrosion resistance of dimensionally stable titanium based anodes and conventional lead alloy anodes in copper electrowinning <u>H. Potgieter</u>, Manchester Metropolitan University/UK</p>
7642	<p>Scanning vibrating electrode technique as a tool for investigating corrosion activities on coated mild steel in NaCl solutions <u>W. Shi</u>, S.B. Lyon, The University of Manchester/UK</p>
7427	<p>Qualification of stress and test methods for use in combined fatigue algorithms for riveted joints <u>J. Gehrke</u>, Institut für Korrosionsschutz Dresden GmbH/D</p>
7435	<p>Pitting potential of materials during potentiodynamic polarization in a NaCl solution <u>Y. Yi</u>, M. Al Ameri, Khalifa University, Abu Dhabi/UAE; S. Al Saadi, FANR, Abu Dhabi/UAE; P. Cho, Khalifa University, Abu Dhabi/UAE; C. Jang, KAIST, Daejeon/ROK</p>
7770	<p>Effect of microstructure of X-65 in bioethanol for pipelines <u>M. Lucio</u>, J.G. González Rodríguez, S. Serna, A. Torres-Islas, Universidad Autónoma del Estado de Morelos, Cuernavaca/MEX</p>
7771	<p>Corrosion performance of TiO₂ nanostructures synthesized at low voltage applying electrochemical techniques H. Herrera-Gutiérrez, <u>C. Cuevas Arteaga</u>, Universidad Autónoma del Estado de Morelos, Cuernavaca/MEX; E. del Ángel Meraz, Universidad Juárez de Tabasco/MEX</p>
7090	<p>Corrosion resistance of Zr 2.5Nb as material for permanent implants <u>S. Farina</u>, Comision Nacional de Energía Atómica, Buenos Aires/RA; A. Gomez Sanchez, S. Ceré, CONICET, Mar del Plata/RA</p>
7092	<p>Comparative corrosion behaviour of different Sn-based solder alloys <u>S. Farina</u>, Comision Nacional de Energía Atómica, Buenos Aires/RA; C. Morando, IFIMAT-UNCPBA, Tandil/RA</p>



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7099	<p>Miniaturized cell for localized electrochemical measurements. Concept and examples of application <u>M. Bestetti</u>, A. Vicenzo, S. Franz, M.F. Brunella, G. Puricelli, Politecnico di Milano/I; C. Borioli, Nanomaterials.it Srl, Milano/I</p>
7451	<p>Dew-point corrosion resistance of alloys in geothermal fluids containing acid chloride M. Cabrini, <u>S. Lorenzi</u>, T. Pastore, Università di Bergamo/I; M. Favilla, R. Perini, B. Tarquini, Enel GP, Larderello/I</p>
7475	<p>Corrosion resistance of ternary Ni-Ti alloys in 0.9% NaCl solution <u>C.D.R. Barros</u>, J.A.C. Ponciano Gomes, Federal University of Rio de Janeiro/BR</p>
7476	<p>Electrochemical induced dissolution of silver points in sodium fluoride solution <u>C. Amaral</u>, F. Ormiga, J.A.C. Ponciano Gomes, Federal University of Rio de Janeiro/BR</p>
7799	<p>EIS Studies of As-cast monotectic Al-Pb and Al-Bi alloys in a 0.5 M NaCl solution <u>E. Freitas</u>, University of Campinas/BR; W. Osório, University of Campinas, Limeira/BR; A. Silva, Federal University of Pará, Belém/BR; J. Spinelli, Federal University of São Carlos/BR; A. Garcia, University of Campinas/BR</p>
7284	<p>Effect of thermal treatments on the localized corrosion behaviour of alloy 718 <u>R. Rebak</u>, GE Global Research, Schenectady, NY/USA; M. Rincon Ortiz, The University of Akron, OH/USA; M. Iannuzzi, GE Oil and Gas, Sandvika/N; M. Kappes, M. Rodriguez, Instituto Sabato, Buenos Aires/RA</p>
7291	<p>Repassivation mechanism of Al alloys D. Cicolin, E. Melilli, M. Pogliana, D. Guastaferro, <u>M. Trueba</u>, S.P. Trasatti, Università degli Studi di Milano/I</p>
7297	<p>The modified phosphate conversion coating on Zn-Mg alloy coated steel for corrosion protection <u>Y.J. Kwak</u>, T.Y. Kim, D.Y. Lee, K.H. Nam, Y.H. Jung, W.S. Jung, M.J. Eom, S.J. Hong, POSCO, Gwangyang/ROK; J.K. Min, H.K. Sohn, POMIA, Pohang/ROK</p>
7298	<p>Local activation of iron in weakly alkaline medias containing halide-ions S. Kaluzhina, Voronezh State University/RUS; <u>N. Nafikova</u>, Center for Quality Assurance and Certification Medicines, Voronezh/RUS</p>
7308	<p>Bromide-ions additives effect on aluminium anodic behavior in borate buffer solution <u>S. Kaluzhina</u>, T. Minakova, T. Popova, A. Chikova, Voronezh State University/RUS</p>
7312	<p>Application of micro-indentation techniques for investigation of seasonal corrosivity of Black Sea maritime atmosphere O.V. Startsev, <u>I.M. Medvedev</u>, All-Russian Scientific-Research Institute of Aviation Materials, Gelendzhik/RUS</p>
7317	<p>Design criteria of reliability and safety in the design of corrosion protection of structural steel <u>V. Korolov</u>, Priazovsky State Technical University, Mariupol/UA; Y.B. Vysotsky, Donetsk National Technical University/UA; Y.V. Filatov, PrSC «Donetsksteel» - Metallurgical Plant/UA; A.N. Gibalenko, OJSC «V.Shimanovsky UkrRDISTeelconstruction», Makeyevka/UA</p>

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7326	Electrochemical induced dissolution of silver points in sodium fluoride solution <u>C. Amara</u> , F. Ormiga, J.A.C. Ponciano Gomes, Federal University of Rio de Janeiro/BR
7332	Corrosion resistance of ternary Ni-Ti alloys in 0.9% NaCl solution <u>C.D.R. Barros</u> , J.A.C. Ponciano Gomes, Federal University of Rio de Janeiro/BR
7762	Thermogravimetric study of hydrogen uptake and desorption in titanium alloys <u>V. Duquesnes</u> , N. Creton, T. Montesin, Université de Bourgogne, Dijon/F; E. Deloye, Vallourec Heat Exchanger Tubes, Venarey-les-Laumes/F
7768	Corrosion behavior of 18Cr-18Mn hot forging steel A. Torres, R. Reyes, S. Serna, Universidad Autonoma del Estado de Morelos, Cuernavaca/MEX; A. Bedolla, Universidad Michoacana de San Nicolas de Hidalgo, Morelia/MEX; <u>M.A. Lucio</u> , J. Colín, Universidad Autonoma del Estado de Morelos, Cuernavaca/MEX
7504	Evaluation of the pitting corrosion on an AISI 304 using scanning electrochemical microscopy R. Sánchez-Tovar, R. Fernández-Domene, <u>J. García-Antón</u> , Universidad Politecnica de Valencia/E
7514	Influence of submarine emissions from El Hierro volcano (Spain) on the corrosion resistance of stainless steels R. Fernández-Domene, R. Sánchez-Tovar, C. Escrivà-Cerdán, R. Leiva-García, <u>J. García-Antón</u> , Universidad Politecnica de Valencia/E
7515	Data processing and data mining applied to electrochemical noise technique for stress corrosion cracking recognition L. Bonaccorsi, L. Calabrese, University of Messina/I; D. Di Pietro, GE Oil & Gas, Firenze/I; M. Galeano, <u>E. Proverbio</u> , University of Messina/I
7520	FEM analysis of H-trapping diffusion model in pipeline steels <u>E. Fallahmohammadi</u> , F. Bolzoni, G. Fumagalli, G. Re, L. Lazzari, Politecnico di Milano/I
7566	Sustainable water and facility management in the steel industry: influence of saline streams on pipeline corrosion D. de la Fuente, M. Morcillo, National Centre for Metallurgical Research, Madrid/E; P. Ivashechkin, VDEh-Betriebsforschungsinstitut, Düsseldorf/D; <u>V. Colla</u> , T.A. Branca, Scuola Superiore Sant'Anna, Pisa/I; M. De Sanctis, Pisa University/I; B.P. Vivas, M. Cabanas, ArcelorMittal Espana, Aviles/E; A. Rassow, Outokumpu Nirosta GmbH, Düsseldorf/D; C. Lucca, ILVA S.p.A., Taranto/I
7112	Corrosion behavior of tungsten heavy alloys in different aqueous solutions <u>Z. Abdel Hamid</u> , Central Metallurgical R&D Institute (CMRDI), Helwan/ET
7078	Influence of intermetallic phase content and microstructure on pitting potential of a duplex stainless steel D.C. Dos Santos, <u>R. Magnabosco</u> , FEI, São Bernardo do Campo/BR
7534	Evaluation of elemental sulfur role on brittle failure in sour brine environment M. Anselmi, GE Oil & Gas, Florence/I; L. Bonaccorsi, L. Calabrese, University of Messina/I; F. Cappuccini, GE Oil & Gas, Florence/I; A. Capri, University of Messina/I; <u>A. Donato</u> , GE Oil & Gas, Florence/I; E. Proverbio, University of Messina/I

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7050	Quantum chemical study of adsorption of organic inhibitors of corrosion of Al on Al₂O₃ and Al(OH)₃ surfaces G. Beloglazov, University of Dodoma (UDOM)/EAT; S. Beloglazov, Baltic Federal University, Kaliningrad/RUS
7066	A probabilistic model for localized corrosion on a metallic pipe under D.C. stray current influence G. Lucca, SIRT I S.p.A., Milano/I
7371	The kinetic during atmospheric corrosion of a nickel cathode S. Wibiha, CEST GmbH, Wiener Neustadt/A
7677	Hlfabar as effective inhibitor for zinc metal in aqueous solutions O. Abdullatef, Pharos University, Alexandria/ET; B. Abd-El-Naby, Alexandria University/ET
7696	Study of the influence of the different percentages of sigma phase in the resistance to pitting corrosion of a duplex stainless steel C. Berlanga, Universidad Pública de Navarra, Pamplona/E; G. Argandoña, Cemitec, Pamplona/E; M.V. Biezma, Universidad de Cantabria, Santander/E; P. Linhardt, Vienna University of Technology/A
7693	Effect of pre-corrosion on efficiency of film-forming corrosion inhibitors in 4M hydrochloric acid under turbulent flow conditios E. Barmatov, T. Hughes, Schlumberger Gould Research, Cambridge/UK
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7273	Pollutant permeability in acrylate varnishes J. Svadlena, J. Stouilil, Institute of Chemical Technology, Prague/CZ
7847	Corrosion of cans in collections: the case study of Burghalde museum L. Brambilla, Haute Ecole Arc Conservation-restauration, Neuchâtel/CH; S. Mischler, EPFL, Lausanne/CH; L. Nicolay, R. Schmitt, HES-SO, Sion/CH; C. von Arx, I. Böhmler, Burghalde Museum, Lenzburg/CH; R. Bertholon, Haute Ecole Arc Conservation-restauration, Neuchâtel/CH
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7247	Imaging techniques: tool for the quantification of oriented additives T. Schuster, K. Rode, S. Damodaran, R. Brüll, Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt/D
7249	Three dimensional orientations by FTIR- and polarized light microscopy S. Damodaran, T. Schuster, K. Rode, R. Brüll, Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt/D
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7087	Corrosion resistance of several metallic materials in contact with mortar G. Duffó, S. Farina, Comisión Nacional de Energía Atómica, Buenos Aires/RA; F. Schulz, CONICET, Buenos Aires/RA

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7457	FTIR study on the amorphous corrosion products of galvanized steel in carbonated concrete G. Roventi, <u>T. Bellezze</u> , C. Conti, R. Fratesi, Polytechnic University of Marche, Ancona/
7764	Adsorption and inhibition corrosion of the biopolymer on carbon steel in simulated pores concrete solution <u>M. Martins</u> , IFAL-Federal Institute of Alagoas, Maceió/BR; J. Tonholo, S.B.B. Uchoa, Universidade Federal de Alagoas, Maceió/BR
7632	Characterization and processing digital series obtained from electrochemical monitoring of reinforcing steel R. Camacho-Chab, Instituto Tecnológico de Campeche/MEX; <u>T. Pérez</u> , Universidad Autónoma de Campeche/MEX; B. Escobar-Morales, Instituto Tecnológico de Cancún/MEX
7637	Adsorption and inhibition corrosion of the biopolymer on carbon steel in simulated pores concrete solution <u>M. Martins</u> , Federal Institute of Alagoas, Maceió/BR; J. Tonholo, S.B.B. Uchoa, Universidade Federal de Alagoas, Maceió/BR
7855	Improving durability of reinforced concrete structures using migrating corrosion inhibitors <u>B. Bavarian</u> , L. Reiner, California State University, Northridge/USA J.J. Meyer, Cortec Corporation, St. Paul/USA
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7201	Effect of PTFE and Al₂O₃ particles variation on corrosion and wear behavior of NiP-PTFE-Al₂O₃ nanodispersion coatings <u>A. Singh</u> , P. Ankita, I.I.T. Roorkee, Saharanpur/IND
7730	Advanced environmentally friendly chemical surface treatments for cast magnesium helicopter transmission alloys preservation <u>F. Brusciotti</u> , U. Izagirre Etxeberria, A. Unzurrunzaga Iturbe, TECNALIA Research & Innovation, Donostia-San Sebastian/E
7707	Bioceramic coatings on Ti6Al4V, developed by electrochemical plasma, laser printer with localized stripping and deposition electrophoresis <u>D. Peña</u> , Universidad Industrial de Santander, Bucaramanga/CO; L. Ramos, H. Estupiñan, Unalmed, Medellín/CO
7231	Elaboration of silica hybrid coatings for corrosion protection of carbon steel: electrochemical study <u>T. Phan</u> , C. Jama, Ecole Nationale Supérieure de Chimie de Lille, Villeneuve d'Ascq/F
7300	Influence of aluminium alloy type on the corrosion behaviour of formed alumina films <u>C. Girginov</u> , S. Kozhukharov, University of Chemical Technology and Metallurgy, Sofia/BG
7304	Corrosion behavior of nanostructured bioactive apatite coating on TiVAI alloys <u>A. Alshamsi</u> , United Arab Emirates University, Al-Ain/UAE

Poster programme

7337	<p>Microstructure and optical appearance of anodized friction stir processed Al- metal oxide surface composites <u>V. Gudla</u>, F. Jensen, K. Bordo, S. Canulescu, R. Ambat, TU of Denmark, Kongens Lyngby/DK; A. Simar, Université Catholique de Louvain/B; R. Shabadi, Université Lille 1, Villeneuve `Ascq/F</p>
7509	<p>Hybrid films modified with polyethylene glycol for corrosion protection of tin plate H. Ribeiro Piaggio Cardoso, <u>S. Raquel Kunst</u>, M.R. Ortega Vega, T. Lemos Menezes, C. Fraga Malfatti, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR</p>
7525	<p>Electrochemical characterization of a H2F6Zr film form on AISI/SAE 1006 steel J. Dos Anjos Moraes, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR; R. Sánchez-Tovar, J. García-Antón, Universitat Politecnica de Valencia/E; J. Zoppas-Ferreira, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR</p>
7552	<p>Characterization of conversion layers hexavalent chromium free applied in electrogalvanized steel K. Provazi de Souza, <u>C.R. Tomachuk</u>, L.E.M. Palomino, Universidade de São Paulo/BR; C. M. Reis, Universidade Federal de São Paulo, Diadema/BR; I. Costa, Universidade de São Paulo/BR</p>
7565	<p>Corrosion resistance of economical environmentally friendly anodization for Mg-3Zn-0.8Ca alloy <u>M. Shoeib</u>, H. Soliman, S. Mikhail, M.E. Mousa, CMRDI, Cairo/ET</p>
7591	<p>Corrosion protection properties of the yttria stabilized sol-gel ZrO₂ thin film on 316L stainless steel I. Bacic, Forensic Science Centre Ivan Vucetic, Zagreb/HR; <u>H. Otmacic Curkovic</u>, L. Curkovic, University of Zagreb/HR</p>
7601	<p>Optical appearance of AC anodized Al/TiO₂ composite coatings <u>K. Bordo</u>, V. Gudla, R. Ambat, TU of Denmark, Lyngby/DK; F. Jensen, Bang & Olufsen, Struer/DK</p>
7617	<p>Superficial patina: analytical interpretation of the ancient process of realization of Japanese Shakudo alloy D. Ferro, CNR-ISMN, Rome/I; <u>D. Servidio</u>, Sapienza University, Rome/I; B. De Filippo, CNR, Rome/I; D. Loep, Sapienza University, Rome/I</p>
7134	<p>Effect of primer-free helical inserts to prevent galvanic corrosion <u>A.E. Eken</u>, C. Yilmaz, E. Tan, ASELSAN AS, Ankara/TR</p>
7530	<p>Corrosion resistance of H2F6Zr coatings in NaCl J. Dos Anjos Moraes, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR; R. Sánchez-Tovar, R. Leiva-García, J. García-Antón, Universidad Politecnica de Valencia/E; J. Zoppas-Ferreira, Universidade Federal do Rio Grande do Sul, Porto Alegre/BR</p>
7215	<p>Investigation of possibility to use glass-based layer to prevent internal corrosion of pipelines <u>M. Ronceray</u>, A. Barnett, K.A. Raheem, Wood Group Kenny Ltd., Staines-upon-Thames/UK</p>

Poster programme

JS: High Temperature Corrosion in the Refinery, Petrochemical & Chemical Industries

7386	Passivation behaviour of stainless steel (UNSN-08028) in industrial phosphoric acid contaminated with chlorides and sulfates at 80°C M. Ben Salah, Tunisia el Manar University/TN; R. Sabot, University La Rochelle/F; E. Triki, L. Dhoubi, Tunisia el Manar University/TN; <u>P. Refait</u> , M. Jeannin, University La Rochelle/F
7423	Failure analysis of boiler furnace wall tube <u>M. Al Muaisub</u> , A. Bayramov, SABIC Technology Center, Jubail Industrial City/SAR

JS: Interplay of Mechanics and Corrosion in Surface and Bulk Degradation

7330	Tribocorrosion behavior of commercially pure titanium in biomedical application of dental and orthopaedic implants <u>Y. Yang</u> , P. Ponthiaux, Ecole Centrale Paris, Chatenay-Malabry/F
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Marine Corrosion

7098	Study on copper release from an antifouling coating and its influence on corrosion of aluminum alloy substrate <u>J. Cao</u> , Naval Coatings Analysis and Test Center, Beijing/CHN; J. Sun, Y. Tang, Y. Zuo, Beijing University of Chemical Technology/CHN
7653	Corrosion resistance in multipass welding of thick UNS S31304 lean duplex stainless steel plates welded using SMAW, GMAW and FCAW processes <u>D.M. Silveira</u> , UFSJ, Ouro Branco/BR; V.F.C. Lins, A.Q. Bracarense, C.S. Souza, R. Cardoso Junior, Federal University of Minas Gerais, Belo Horizonte/BR
7714	Behaviour of anti-corrosion coatings: comparison of the ageing in real environment in 2 different exposition sites M. Tejero, <u>J.B. Jorcin</u> , Tecnalia R&I, Donostia - San Sebastián/E; A. Prieto, T. Alhambra, J. Ferreira, Hempel R&D, Polinya/E

Metallic Coatings

7442	Corrosion protection property of corrosion products of zinc galvanized steels <u>H. Katayama</u> , National Institute for Materials Science, Tsukuba/J; R. Miyahara, Y. Hoshi, I. Shitanda, M. Itagaki, Tokyo University of Science, Noda/J
7470	Pd-In and Pd-Fe as new type of "Ni-free" top coatings for decorative applications S. Caporali, P. Marcantelli, <u>U. Bardi</u> , Università di Firenze, Florence/I
7191	Thin film hot dip galvanizing - the innovative revival of a traditional process <u>T. Pinger</u> , J. Tomaszewski, Fontaine Technologie GmbH, Gelsenkirchen/D
7580	Influence of deposition techniques on properties of solar selective coatings on Cu and Al substrates <u>M. Shoeib</u> , CMRDI, Cairo/ET; N. El-Mahallawy, Ain Shams University, Cairo/ET; Y. Ali, The German University in Cairo/ET

Poster programme

7590	Electrochemical behaviour of protective coatings in chloride solutions G. Sundararajan, GE Global Research, Bangalore/IND; R. Rebak, GE Global Research, Schenectady, NY/USA
7111	Electrodeposition of Ni-Mo-P electrodes for direct alcohol fuel cell applications Z. Abdel Hamid, Central Metallurgical R&D Institute (CMRDI), Helwan/ET
7143	Characterizing the structure of ZnAlMg-coated steel sheet via FIB-tomography M. Arndt, J. Duchoslav, Universität Linz/A; C.K. Riener, G. Angeli, voestalpine Stahl GmbH, Linz/A; D. Stifter, Universität Linz/A
7844	An electrodeposition process for fabrication of super-hydrophobic nickel film and its corrosion resistance S. Khorsand, K. Raeissi, F. Ashrafzadeh, Isfahan University of Technology/IR; M.A. Arenas, National Center for Metallurgical Research, Madrid/E
7845	The effect of texture and surface morphology on the corrosion resistance of zinc electrodeposits S. Khorsand, K. Raeissi, M.A. Golozar, Isfahan University of Technology/IR
7274	Anodic oxidation of galvanic Zn-Ni alloy coatings in the NaOH solutions A. Maciej, W. Simka, Silesian University of Technology, Gliwice/PL; J. Michalska, Silesian University of Technology, Katowice/PL; T. Gorewoda, Institute of Non Ferrous Metals, Gliwice/PL; G. Dercz, University of Silesia, Chorzów/PL
7825	Deposition of zinc powder on iron with cold spray application A. Bossio, T. Monetta, C. Bitondo, F. Bellucci, Università degli Studi di Napoli Federico II/I
Microbial Corrosion	
7089	Sulfate-reducing bacteria induced the corrosion of copper D. Zhang, S. Chen, P. Wang, Chinese Academy of Sciences, Qingdao/CHN
7270	The effects of Ag-Cu ions on the microbial corrosion of 316L stainless steel in the presence of <i>Desulfovibrio</i> sp. T. Unsal, S. Arkan, E. Ilhan-Sungur, Istanbul University/TR; N. Cansever, Yildiz Technical University, Istanbul/TR
7763	Influence of biofilm with mixed culture in corrosion rate of carbon steel S.H. Oliveira, M.R.S. Vieira, D.R. Lima Junior, M.A.G.A. Lima, S.L. Urtiga Filho, Federal University of Pernambuco, Recife/BR
7809	Effect of electromagnetic field on the corrosion behaviour of 2205 duplex stainless steel in the presence of <i>Pseudoalteromonas</i> sp. Z. Song, M. Moradi, Ningbo Institute of Materials Technology and Engineering/CHN
Nuclear Corrosion	
7837	Investigation of the effect of water chemistry and temperature on the oxide layer formed on Alloy 182 in simulated PWR environment R. de Mendonca, R.-W. Bosch, W. van Renterghem, SCK, CEN (Belgian Nuclear Research Centre), Mol/B

Poster programme

7856	Corrosion monitoring of NPP equipment and pipelines by high-temperature on-line sensors <u>M.V. Sof'in</u> , F.V. Nikolaev, V.G. Kritsky, P.S. Styazhkin, JSC «Leading institute «VNIPIET», St.Petersburg/RUS
7218	On the mechanism and kinetics of radiation induced corrosion of copper <u>Å. Björkbacka</u> , S. Hosseinpour, M. Johnsson, C. Leygraf, M. Jonsson, KTH Royal Institute of Technology, Stockholm/S
7086	Corrosion susceptibility of steel drums containing cemented simulated incineration ashes as low level nuclear waste <u>G. Duffó</u> , S. Farina, Comisión Nacional de Energía Atómica, Buenos Aires/RA; F. Schulz, CONICET, Buenos Aires/RA; F. Marotta, Politecnico de Milano/I
7091	Corrosion of high purity copper as engineering barrier in deep geological repositories M. Ochoa, M. Rodríguez, <u>S. Farina</u> , Comisión Nacional de Energía Atómica, Buenos Aires/RA
7719	Corrosion resistance in multipass welding of thick UNS S31304 lean duplex stainless steel plates welded using SMAW, GMAW and FCAW processes C.S. Souza, V.F.C. Lins, D.M. Silveira, <u>C.G.F. Costa</u> , R.C. Junior, F.R. Campos, A.Q. Bracarense, Federal University of Minas Gerais, Belo Horizonte/BR
7759	Effect of cathodic hydrogen charging of titanium alloys on hydrogen absorption and hydride formation <u>S. Dejardin</u> , V. Dusquesnes, N. Creton, R. Oltra, T. Montesin, Université de Bourgogne, Dijon/F
7800	Water chemistry and corrosion issues of control rod and protection system in Russian LWGRS <u>E. Yurmanov</u> , V. Yurmanov, OJSC NIKIET, Moscow/RUS
7801	Sensitisation and IGSCC in type 321 SS NPP manifold welds <u>K. Shutko</u> , JSC NIKIET, Moscow/RUS
7600	Behaviour of steam generator tube at different temperatures and levels of chloride <u>M. Schwartzman</u> , F. Mansur, P. Nogueira, W.R.C Campos, M.A.D. Quinan, Centro de Desenvolvimento da Tecnologia Nuclear, Belo Horizonte/BR
7836	Oxidation behavior and spallation of oxide scales after T91 oxidation in water vapor environment <u>M. Demizieux</u> , C. Desgranges, CEA Saclay, Gif-sur-Yvette/F; J. Favergeon, Université Technologique de Compiègne/F; L. Martinelli, CEA Saclay, Gif-sur-Yvette/F
7664	Hydrogen production by iron corrosion under irradiation <u>D. Stammose</u> , M. Osmond, E. Barker, C. Wittebroodt, Institut de Radioprotection et de Sûreté Nucléaire, Fontenay aux Roses/F
Organic Coatings	
7372	Delamination of organic coatings on a zinc substrate investigated with a current measurement method S. Wibihal, <u>M. Pichler</u> , CEST GmbH, Wiener Neustadt/A; G. Faflek, Vienna University of Technology/A; M. Fleischanderl, voestalpine Stahl Linz GmbH/A

Poster programme

7178	<p>Raman spectroscopy as a tool for investigation of fluoropolymer coatings on electronic boards <u>M. Rodosek</u>, L. Slemenik Perse, M. Mihelcic, M. Kozelj, B. Orel, National Institute of Chemistry, Ljubljana/SLO; B. Bengu, O. Sunetci, Arcelik R&D, Istanbul/TR; P. Pori, Chemcolor Sevnica/SLO; A. Surca Vuk, National Institute of Chemistry, Ljubljana/SLO</p>
7431	<p>It's all relative, when it comes to protective coatings <u>D. Ferguson</u>, Infracorr Pty. Ltd., Melbourne/AUS; P. Dove, GHD Pty. Ltd., Melbourne/AUS</p>
7094	<p>The study on failure process of acrylic polyurethane coating under alternate wetting and drying condition <u>Z. Fang</u>, Naval Academy of Armament, Beijing/CHN; L. Zhang, X. Zhao, Y. Zuo, Beijing University of Chemical Technology/CHN</p>
7194	<p>Improved corrosion protection of graphene oxide reinforced siloxane-PMMA hybrid coatings <u>S.V. Harb</u>, F.C. dos Santos, S.H. Pulcinelli, C.V. Santilli, P. Hammer, Universidade Estadual Paulista (UNESP), Araraquara/BR</p>
7268	<p>Anodic protection produced by Smart Ink <u>R.S. Silva</u>, V. Maggi, J.Z. Ferreira, A. Meneguzzi, UFRGS, Porto Alegre/BR</p>
7296	<p>Protective compositions on base of wastes of vegetable oils production against atmospheric corrosion of steel goods V.I. Vigdorovich, RRITOP, Tambov/RUS; A.A. Uryadnikov, Derzhavin State University, Tambov/RUS; N.V. Shel, Tambov State Technical University/RUS; <u>L.E. Tsygankova</u>, Derzhavin State University, Tambov/RUS</p>
7761	<p>Fine textured polymer based composite materials as multifunctional low friction coatings with corrosion protection <u>D. Bentz</u>, S. Schmitz-Stöwe, M. Wild, C. Becker-Willinger, INM - Leibniz-Institute for New Materials gGmbH, Saarbrücken/D</p>
7652	<p>The effects of the nano-TiO₂ on the interfacial corrosion behavior of immersed coatings <u>J. Gao</u>, H. Jiang, H. Qian, L. Lu, X. Li, University of Science and Technology Beijing/CHN</p>
7124	<p>Study of the corrosion behavior of electrogalvanised steel/Cr(III) and Zr conversion layer/paint system by electrochemical and visual methods F.M. Queiroz, CCTM, São Paulo/BR; P.R. Seré, C.I. Elsner, A.R. Di Sarli, CIDEPINT, La Plata/RA; <u>C.R. Tomachuk</u>, Universidade de São Paulo/BR; I. Costa, CCTM, São Paulo/BR</p>
7181	<p>Research into the causal effects and development of solutions to pinholing of powder coated galvanized steel <u>A. Speakman</u>, C. Chisholm, M. El-Sharif, R. Ansell, Glasgow Caledonian University/UK</p>
7363	<p>Behaviour of coatings at the defect - scribing tools for investigations of coatings on steel <u>R. Bentfeld</u>, Institut für Korrosionsschutz Dresden GmbH/D</p>
7857	<p>New flange corrosion protection system <u>K. Flanagan</u>, Belzona Polymerics Limited, Harrogate/UK</p>

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7216	Influence of different pretreatments of Mg4Y2Nd prior to NaF-coating on the electrochemical corrosion behaviour <u>C. Schille</u> , E. Schweizer, J. Geis-Gerstorfer, University Hospital of Tuebingen/D
7516	Employing electro-deposition technique for coating nano-bioactive ceramic coating on dental Ti-alloy implant <u>M. Shoeib</u> , CMRDI, Cairo/ET; H. Shalaby, Beni-Suef University/ET; M. Nassif, Ain Shams University, Cairo/ET; A. Abdelrahman, MTI University, Cairo/ET
7663	Establishment of a novel CV-method to measure real work pieces and comparison with the standard method <u>A. Schindel</u> , J. Schodl, CEST Centre of Electrochemical Surface Technology, Wiener Neustadt/A; G. Fafleik, TU Vienna/A; Ch. Kleber, CEST Centre of Electrochemical Surface Technology, Wiener Neustadt/A
Self-healing Coatings	
7219	Fundamental investigation on the mechanism of capsule based redox-responsive self-healing coatings <u>A. Vimalanandan</u> , Max-Planck-Institut für Eisenforschung GmbH, Duesseldorf/D; L.-P. Lv, Max-Planck-Institut für Polymerforschung, Mainz/D; T. H. Tran, Max-Planck-Institut für Eisenforschung GmbH, Duesseldorf/D; K. Landfester, D. Crespy, Max-Planck-Institut für Polymerforschung, Mainz/D; M. Rohwerder, Max-Planck-Institut für Eisenforschung GmbH, Duesseldorf/D
7184	Self-healing properties of smart coating for hot dip galvanized steel <u>W.J. Li</u> , C.Y. Tsai, C.J. Lu, Industrial Technology Research Institute, Hsinchu/RC
7443	„Green“ encapsulation of corrosion inhibitors for smart coatings <u>A. Altin</u> , M. Rohwerder, A. Erbe, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf/D
7374	Encapsulation of corrosion inhibitors in a self-healing polymeric coating <u>H. Verbruggen</u> , A. Lutz, H. Terry, I. De Graeve, Vrije Universiteit Brussel, Elsene/B
WS: Corrosion Reliability of Electronics Devices	
7453	Climatic durability of modern assembly technologies in electronics P. Zák, Czech Technical University, Prague/CZ; <u>K. Kreislová</u> , SVÚOM Ltd., Prague/CZ; D. Majtás, UTAM, Telc/CZ
7826	Understanding moisture protection of coated electronic circuits in terms of water permeation and electrochemical corrosion <u>J. Krog</u> , Grundfos A/S, Bjerringbro/DK; M. Ahmed, M.S. Jellesen, TU of Denmark, Lyngby/DK; J.B. Jacobsen, Grundfos A/S, Bjerringbro/DK; R. Ambat, TU of Denmark, Lyngby/DK
7335	Development and evaluation of atmospheric corrosion sensors using printed circuits E. Roblero, F. Corvo, V. Moo-Yam, E. García-Ochoa, <u>T. Pérez</u> , Universidad Autónoma de Campeche/MEX

A black and white photograph of a Gothic tower, likely a bell tower, with a semi-transparent white overlay. The overlay contains the text "SOCIAL PROGRAMME" in a blue, textured font. The tower's architecture features multiple levels of arches and columns, with a dark sky in the background.

SOCIAL PROGRAMME

Social Programme

Welcome Reception

Monday, 8 September, 18:00-19:30

The organization has the pleasure to invite all participants for the Welcome Reception at the Congress Center (Palazzo dei Congressi) for the opening of the exhibition.

Poster Party

Wednesday, 10 September, 18:00-19:30

The poster party will offer a unique opportunity to meet and discuss with the authors about their latest results and to have look at the latest achievements. A light buffet will be offered by the organisers.

Congress Gala Dinner

Thursday, 11 September, 19:00-23:30

Villa Scorzi in Calci

Strada del Lungomonte Pisano, 2
SS 152 - 56010 Calci - Pisa - Italy
www.villascorzi.it

After having been for hundreds of years the residence of illustrious aristocratic families, 14th century **Villa Scorzi** is now an exclusive mixed-use centre located within the heart of Tuscany, set under the aegis of the famous Certosa (Charterhouse) of Calci and surrounded by the enchanting framing of Pisa's mountains and countryside.

Consisting of an elegant set of buildings surrounded by a more than 14 acres park, the Villa has been completely renovated in the respect of its original beauty and it thus represents the ideal place to organize any kind of event.

At the sides of the main building, whose 17th century façade is surmounted by a clock, there are a 14th century arcade and a big lemon-house; in front of it there is an Italian garden that is framed by forest trees and guards a precious frescoed oratory dedicated to the Madonna of Loreto.

At the back of the main building there are two wide courtyards, in the typical Tuscan country style;

they are enriched by an open gallery, a well and a monumental fountain recalling the Baroque style of the nearby Certosa of Calci.

The Congress Organizers will provide **transfers to and from the dinner venue**. Transfers will depart at 19:30 from (and return to) Palazzo dei Congressi. Participants and accompanying persons who have not pre-registered for the Congress Gala dinner may check availability and purchase their tickets at the administration desk in Pisa until Midday of Tuesday, September 9.

Optional Tour Programme

A selection of tours have been organised for accompanying persons and participants:

Lucca – Tuesday, September 9 (half day tour)

Departure from Congress Venue at 9.00 am // Return to Congress Venue at 1.00 pm

Cost per person: € 46,00

Florence – Wednesday, September 10 (full day tour)

Cost per person: € 84,00

Departure from Congress Venue at 9.00 am // Return to Congress Venue at 6.00 pm

Bolgheri – Thursday, September 11 (half day tour)

Cost per person: € 46,00

Departure from Congress Venue at 9.00 am // Return to Congress Venue at 1.00 pm

Participants and accompanying persons who wish to attend are invited to book the tour(s) at the registration desk on Monday 8 from 16:00 to 18:00. A minimum of 20 people is required to operate each tour.



Lucca



Florence

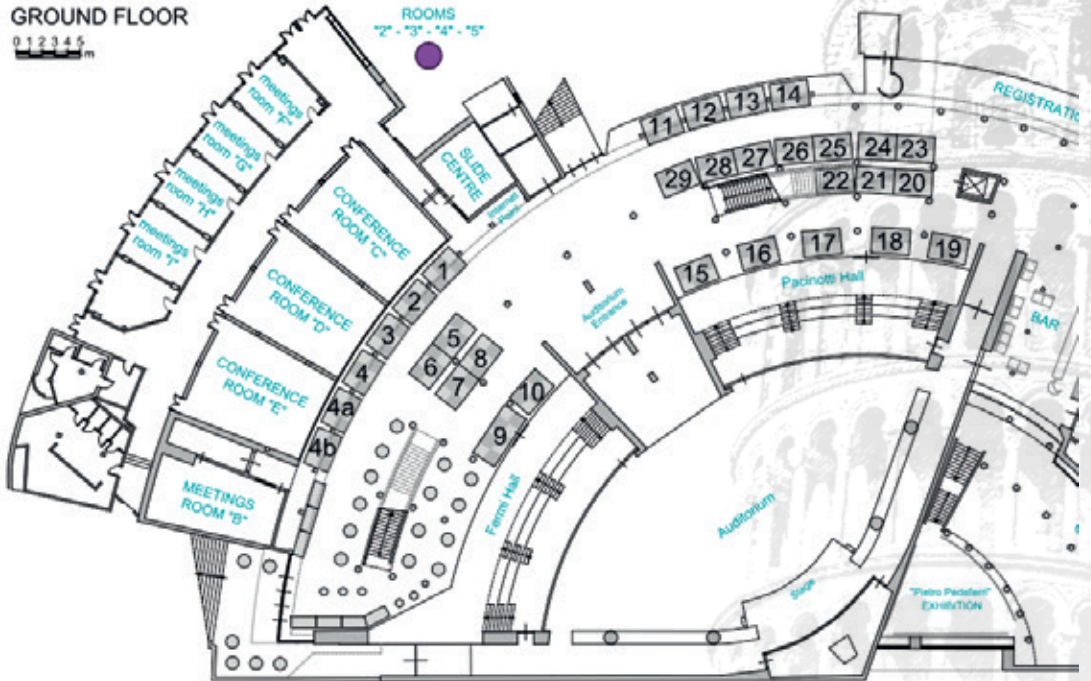


Bolgheri



EXPERIENCE

Floor Plan



- | | |
|---------------------------|-------------------------------------|
| 1. Metrohm Autolab | 15. Nakayama Amorphous |
| 2. Oerlikon Metco | 16. Nace International |
| 3. APCE | 17. ASMET |
| 4. Krüss GmbH | 18. EFC |
| 4a. Cescor | 19. Maney Publishing |
| 4b. Tecnosystem group | 20. Advitam sas |
| 5. Cortec Corporation | 21. Belzona Polimerics Ltd |
| 6. Ivium Technologies | 22. PoliLapp |
| 7. Pontlab srl | 23. Mapei |
| 8. BIO-Logic | 24. Haynes International |
| 9. Trenton Europe | 25. Xing Chan Tai Anodes Technology |
| 10. Thermo-Calc software | 26. Seaguard Italanodi |
| 11. Gamry Instruments | 27. Freyssinet |
| 12. NG Labtec | 28. NCERCAMP |
| 13. Cornet OY | 29. Amel |
| 14. BAC Corrosion Control | |

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- **Versatile:** Designed for operating temperatures up to 110 °C (230 °F), conforms to irregular profiles, UV stable, chloride and chemical resistant
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The only surface preparation required is wire brushing (see inset). Trenton's HT-3000 Wax-Tape high-temperature wrap provides excellent high-temperature protection.



For aboveground applications, or for additional mechanical protection, Trenton's MC Outerwrap™ provides excellent mechanical strength and quick curing times.

Typical Applications:

- High-temperature oil and gas piping
- Compressor station discharge piping
- Piping beneath thermal insulation
- Environments with high ambient temperatures

List of Exhibitors



Advitam

STAND 20
www.advitam-group.com

Advitam is a group of Civil Engineers, Structural Engineers, electronic and software engineers who operate in the field of Infrastructure Management Solutions providers. We develop systems and applications that provide readily available, timely and accurate information for managers faced with the tasks of operation, maintenance, and rehabilitation of infrastructure. Advitam devotes itself to understanding the risks of deterioration of infrastructure and implements software solutions, inspection, maintenance and monitoring systems in order to ensure their durability and serviceability at lower cost. Advitam assists public and private contracting authorities – state and local authorities, manufacturers, and concession holders – with managing their built heritage. This is accomplished through 4 business areas: Infrastructure Management Software, Remote Monitoring & Control Systems, Investigations & Non Destructive Testing, Cathodic Protection Systems. EXPOSED FURNITURES AND SERVICES: The equipment presented is a modular cabinet of 6 independant rectifiers of 10A, for each zone. Each zones can collect up to 8 potential readings. The configuration of the system settings can be performed on site or remotely. It is connected to Internet, and can be configured using any web browser. Several functionalities are integrated to alert the operators of any unexpected event.



STAND 29
www.amelchem.com

Since 1959 AMEL has been involved in the design and manufacturing of measuring instruments for electrochemical applications.

The firm originated within the University of Padua as a technical support for research instrumentation needs, It underwent a rapid growth and expansion into the industrial sector without abandoning its original focus as a research-oriented firm. AMEL places a priority on providing specific technical solutions and as a result is considered a point of reference for resolving complex research tasks in the public sectors.

AMEL is the unique Italian firm manufacturing a complete set of electrochemical instruments both for corrosion (potentiostats) and analytical chemistry (trace analyzers).



ASSOCIAZIONE PER LA PROTEZIONE
DALLE CORROSIONI ELETTROLITICHE
www.apce.it - info@apce.it

STAND 3
www.apce.it

APCE is a non-profit cultural-scientific association which was founded in 1981 to respond to the various needs of the owners and managers of buried or immersed structures. It was founded in particular to improve the relationships between the institutions, to improve the safety and quality levels which are increasingly important to enable them to correctly serve their clients. APCE has been recognized by the Electric and Gas Authority as the competent technical organization for defining the guidelines for cathodic protection of metal pipelines. APCE aims at:

- Personnel training and updating.
- Promoting and coordinating initiatives addressed to cooperation between its members, to study and solve the problems involved with protecting metal structures against electrolytic corrosion.
- Focusing the awareness of the technicians on the problems involved with protecting buried metal structures from corrosion.
- Studying the various phenomena that interact with buried metal structure corrosion phenomena, by promoting study and research.
- Promoting meetings and events to spread information about corrosion phenomena.

List of Exhibitors

STAND 17www.asmet.com

ASMET is an 150 year old association which comprises 1,150 personnel members and over 100 member companies with a total turnover of € 40 billion and over 150,000 employees today. The main task of ASMET it is to provide a platform for information and knowledge exchange for the members in the fields of metallurgy, materials science, material technology and engineering, focusing on production of metals and associated production processes, metallurgical plant engineering in selected scientific, technical and business administration areas. ASMET is the most important organizer of technical conferences with focus on metallurgy, material science and metal processing in Austria.

"Earth, Water, Fire, Air, Corrosion happens everywhere"

ASMET, the Austrian Society for Metallurgy and Materials, is proud to host the European Corrosion Congress EUROCORR 2015.

The conference will take place in Graz at the Stadthalle, from 6-10 September 2015.

We are looking forward to welcoming you in Graz.

STAND 14www.bacbera.dk

BAC Corrosion Control is the Europe's largest manufacturer of sacrificial anodes.

We produce high quality zinc and aluminium anodes from our foundry and we also supply a wide range of anodes in magnesium and iron, as well as purpose designed systems for impressed current (ICCP).

BAC engineering specializes in the design, field survey, installation and commissioning of corrosion control systems. Our offices in Denmark and France employ a skilled and experienced team of engineers and technicians who are able to solve or assist in solving your corrosion problems.

STAND 21www.belzona.com

Specialising in erosion, corrosion and chemical protection, Belzona is a world leader in the design and manufacture of repair composites and protective coatings for machinery, equipment, buildings and structures. Founded in 1952, we are one of the few global companies which offer innovative solutions combined with the technical know-how to meet the demands of a variety of industries.

2014 Product Innovations:

Belzona 3411 (Encapsulating Membrane) is a hybrid polymer coating designed to encapsulate any shape, size or configuration of a flanged joint to exclude moisture and prevent corrosion. This corrosion barrier can be easily cut, peeled back and then reinstated to allow access to fastenings for inspection or disassembly.

Next generation high temperature linings for process equipment, spray applied Belzona 1523 and hand applied Belzona 1593. These linings are formulated to exhibit increased toughness and flexibility in high temperature immersion service, with rubbery domains that inhibit crack propagation incorporated into the structure.

Airless spray applied erosion resistant linings. Belzona 1331 and Belzona 1381 provide erosion resistance superior to that of ceramic filled epoxies while not damaging the spray equipment.

List of Exhibitors



STAND 8
www.bio-logic.info

Full Scanning system for localized measurement like LEIS, Kelvin Probe or Vibrating probe Advanced Electrochemical Potentiostats/galvanostats with built in EIS Analyzer controlled by Powerful EC-Lab software featuring Corrosion simulator, Transportable or Multichannel workstations. Wide range of Corrosion cells for Coating, Galvanic coupling, or Corrosion process monitoring.



STAND 4a
www.cescor.it

Integrity assessment: it is an evaluation of the integrity of oil and gas assets such as piping, static equipment, tanks and pipelines; asset integrity is a key issue in all phases of projects, from conception to operation.

direct assessment: internal and external corrosion direct assessment are techniques developed to verify the integrity status of pipelines, with a 4 phases procedure aimed to identify the most probable location of attacks

risk based inspection: RBI is a decision making techniques for inspections planning based on risk, comprising the probability of failure and the consequences of failure.

modeling of LP systems by FEM: the finite elements method is a numerical technique for solving boundary value problems. Applied to cathodic protection, it allows to solve the electrical field for realistic models of structure.

Offshore services: subsea pipelines are protected by coating and cathodic protection; periodical underwater inspections performed on rovs or divers are necessary to verify that protections is established and maintained.



STAND 13
www.cormet.eu

Cormet Testing Systems offers material and corrosion testing instruments including

- Loading devices for SCC and fatigue tests.
- HT HP electrochemical and water chemistry sensors.
- Recirculation loops for water, steam and SCW environment.
- Autoclaves.
- Testing instruments for H₂S containing environments.
- Tribocorrosion instruments.
- Customised corrosion research and testing instruments.

All the instruments are available as room temperature and high temperature high pressure versions.

List of Exhibitors

STAND 5www.cortecvci.com

EcoFog® VpCl®-337 is biodegradable, ready-to-use waterborne vapor corrosion inhibitor for temporary protection of equipment and plants. It is a complete replacement for nitrogen blanketing and dry air systems that are both expensive to install and maintain. Product is effective on ferrous and non-ferrous metals as well as aluminum, plated steels, and copper. EcoEmitter® is a highly engineered device designated to provide corrosion protection for the most sensitive assets such as electronic and optical equipment and components. EcoEmitter® is powered by NANO-VpCl, the latest advancement in vapor phase corrosion inhibiting technology. MCI-2005® is a water-based, organic, corrosion inhibiting admixture for the protection of metallic reinforcement in concrete structures. Biobased, safe and environmentally friendly, meets requirements for ASTM C1582. CorroLogic™ VpCl®-609 is a water-soluble Vapor phase Corrosion Inhibitor (VpCl) powder for wet or dry corrosion protection of ferrous metals and aluminum. Its inhibiting action protects inaccessible and recessed surfaces. 100 % biodegradable in marine environment, conforms to MIL-I-2210C. CorroLogic™ VpCl®-637 TOL provides corrosion control in natural gas and crude oil gathering and transmission lines, including the difficult Top-of-Line (TOL) corrosion problems. The unique chemistries of CorroLogic™ VpCl®-637 TOL enable the product to protect internal pipelines in "sweet/sour" saturated carbon dioxide/hydrogen sulfide environment.

STAND 18www.efcweb.org

The European Federation of Corrosion is the biggest corrosion organisation in Europe and one of the largest in the world, representing over 30 national corrosion, engineering and materials societies with members from 25 European countries and an increasing number of international members from outside of Europe.

Its three European secretariats are based in London, Paris and Frankfurt and are dedicated to advancing the science and engineering of corrosion and protection of materials by promoting cooperation in Europe through international collaboration.

EUROCORR®, The European Corrosion Congress, is the EFC's flagship event and is hosted every year by a member society in their respective European country.

STAND 27www.freyssinet.com**FREYSSINET**

Freyssinet brings together an unrivaled set of skills in the specialized civil engineering sector.

With its expertise in the design of structures and technologies, the production of materials and equipment and their implementation on site, Freyssinet offers integrated technical solutions in two major fields: construction and structural repair (under the Foreva® label).

List of Exhibitors



STAND 11

www.gamry.com

Gamry Instruments designs, manufactures, and sells a variety of electrochemical instrumentations and accessories. From basic DC corrosion measurements to electrochemical impedance to electrochemical noise, Gamry is at the forefront of electrochemical instrumentations. We have a variety of single and multichannel potentiostats, a multiplexer, a quartz crystal microbalance and rotating cylinder electrode setups.

HAYNES

International

STAND 24

www.haynesintl.fr

HAYNES INTERNATIONAL is the developer, manufacturer and marketer of HASTELLOY® and HAYNES® high performance nickel and cobalt based alloys used in corrosion and high temperature applications.

High temperature alloys :

HASTELLOY®S - HASTELLOY®W - HASTELLOY®X - HAYNES® 25 - HAYNES®

188 - HAYNES® 214 (structural) - HAYNES® 214 (weld grade) - HAYNES® 230 W - HAYNES® 242® - HAYNES® 282® -

HAYNES® 556® - HAYNES® 617 - HAYNES® 625 - HAYNES® 718 - HAYNES® 263 - HAYNES® HR-120® - HAYNES® HR 160® -

HAYNES® WASPALOY - HAYNES® X- 750 - MULTIMET®

Corrosion- Resistant alloys :

HASTELLOY® B-3® - HASTELLOY® C-4 - HASTELLOY® C-22®- HASTELLOY® C- 22HS®-

HASTELLOY® C-276 - HASTELLOY® C-2000® - HASTELLOY® G-30® - HASTELLOY® G-35® - ULTIMET.



STAND 6

www.ivium.com

Manufactures potentiostat/galvanostats with integrated FRA/EIS, including:

The *only truly portable USB powered potentiostats* with FRA/EIS for field use:

- Handheld pocketSTAT (4V/10mA/EIS 100kHz);
 - CompactStat (10V/30mA/EIS 3MHz, power boosters optional).
 - Vertex entry level product line: 100mA - 10A and 10V - 20V, FRA/EIS 1MHz;
 - High end IviumStat high power potentiostats: 2A - 10A and 10V - 50V, FRA/EIS 8MHz.
 - Affordable high grade multichannel potentiostat: 500mA-5A and 10V-20V, FRA/EIS integrated in each channel: 1MHz.
- Our powerful IviumSoft control and data analysis software offers all electrochemical and corrosion techniques, and is included free of charge with each instrument.

Additional options, boosters (up to 40A) and modules are available.

List of Exhibitors

STAND 4www.kruss.de

Our innovative Mobile Surface Analyzer – MSA measures surface free energy with two liquids, fully automatically, mobile and within one second using our new “One-Click SFE” method. Our Drop Shape Analyzer – DSA30 is a robust instrument which can be used flexibly for the precise measurement of contact angle and surface free energy. With high-quality components and various automation options, the DSA30 analyses wetting and adhesion on solid surfaces.

Our universal Force Tensiometer – K100 performs high-precision, automatic and reliable measurements of surface tension and interfacial tension, critical micelle concentration CMC and contact angle on solids, fibers and powders.

KRÜSS GmbH will be represented by their exclusive distributor in Italy, EN.CO. S.r.l.:

Via Filande 13, 30038, Spinea Venice - Tel. 00390415411133 - Fax 00390415411090

Web: www.encosrl.com - email: commerciale@encosrl.com

**STAND 19**www.maneyonline.com/matscieng

Maney Publishing's Materials Science & Engineering Collection provides access to over thirty highly-regarded, peer-reviewed, international materials science and engineering publications.

Titles providing broad coverage of their discipline are complemented by specialist titles focusing on niche areas including materials research, mineral resources, physical metallurgy, surface engineering, geotechnical engineering, water science and technology and transportation.

Coverage ranges from fundamental research to new materials for electronics, energy and biomedicine and extends from fabrication, processing and characterisation of materials to properties and performance.

STAND 23www.mapei.com

MAPEI is leader worldwide in the field of building products and has always been channelling a 5% of its annual turnover into investments in R&D.

Mapei range includes sacrificial anodes and an innovative elastic cementitious coating to increase the durability of new or existing concrete structures.

MAPESHIELD I: Pure multi-layer zinc sacrificial anodes, drowned in a special conductive paste, for the cathodic galvanic protection of reinforcing rods to be inserted in new or restored structures, without need of impressed current.

MAPESHIELD E 25: Self-adhesive leaf of 99,9% pure zinc, coupled with an electrolyte with high ionic conductivity, for the cathodic galvanic protection of reinforcing rods, to be applied directly on the surface of the new or restored structures, without need of impressed current.

MAPELASTIC: cementitious mortar flexible down to -20°C, with a high crack-bridging capability, able to protect concrete from the penetration of the aggressive agents (carbon dioxide and chlorides) and to increase the structure durability.

List of Exhibitors



STAND 1

www.metrohm-autolab.com

Products descriptions:

POTENTIOSTAT-GALVANOSTAT PGSTAT's Are state of the art instrumentation that can be used for virtually all electrochemical applications. One of the important features of Autolab electrochemical instruments is the modularity.

CORROSION MONITORING SYSTEM We can provide procedures and automatic measurements for corrosion rate, polarization resistance, equivalent circuit models, hydrogen permeation, critical pitting temperature, and electrochemical noise.

ELECTROCHEMICAL IMPEDANCE SPECTROSCOPY EIS is a powerful technique for the characterization of electrochemical systems. It has widespread application in the field of characterization of materials. It is routinely used in the characterization of coatings and corrosion phenomena. **SCANNING ELECTROCHEMICAL MICROSCOPY** The idea of SECM is the visualization of local electrochemical activity of a sample surface. Can be used to monitoring pitting, coatings, electrochemical deposition. In combination with impedance spectroscopy provides localize impedance characterization.

CORROSION CELLS AND ACCESSORIES The corrosion cells have been designed to measure the corrosion properties of circular samples immersed in an electrolyte. Three models are available: 1 L model, 400 mL model, Flat cell for extra-large sample.



STAND 16

www.nace.org

NACE International, The Worldwide Corrosion Authority, serves over 33,000 members in 130 countries.

Based in Houston, Texas, with offices in the United States, China, Malaysia, and Saudi Arabia, the organization serves all industries impacted by corrosion and provides the most specified technical training and certification programs, conferences and exhibitions, industry standards, reports, and publications focused on corrosion prevention and mitigation.



STAND 15

www.nakayama-amorphous.co.jp/en

Amorphous alloy coating product

Impellers for anti corrosion and erosion sleeves for anti corrosion and erosion low friction pipe

Marin corrosion thermal spraying

Nano structured Al-Mg coating

Amorphous alloy coating for splash zone

Amorphous alloy product: Fuel cell separator - Fuel cell collecting plate - Torque sensor

List of Exhibitors

STAND 28www.uakron.edu/corrosionThe University of Akron
NCERCAMP

Housed at The University of Akron in Northeastern Ohio, the National Center for Education and Research on Corrosion and Materials Performance (NCERCAMP) provides a holistic approach to addressing materials performance challenges by offering a comprehensive set of services in education, workforce training, research and applied technology development. Although established and housed in the United States, we recognize the importance of international partnerships and collaborative efforts and have established a strong baseline of such relationships on which to grow. We look forward to partnering with additional international students, faculty, government researchers and industry representatives to maximize and complement our respective strengths.

STAND 12www.nglabtec.com

NG Labtec is an Italian distributor of scientific instruments applied for materials and surfaces characterizations. Electrochemistry, chemistry, corrosion tests, metal cleaning evaluation are some of the techniques we face, representing worldwide leader companies like. Gamry Instruments (USA): potentiostats, spectroelectrochemistry, quartz, crystal microbalance, cells, software. Dataphysics (D): optical contact angles, tensiometers, spinning videotensiometer. VIM (D): corrosion test chambers. SITA (D): bubble pressure tensiometers, metal cleanliness testers.

STAND 2www.oerlikon.com/metco

Oerlikon Metco enhances surfaces that bring benefits to customers through a uniquely broad range of surface technologies, equipment, materials, services, specialized machining services and components. The surface technologies such as Thermal Spray, Thin Film, Plasma Heat Treatment and Laser Cladding improve the performance and increase efficiency and reliability. Oerlikon Metco serves industries such as aviation, power generation, automotive, oil & gas, industrial and other specialized markets and operates a dynamically growing network of more than 50 sites in EMEA, Americas and Asia Pacific. Oerlikon Metco, together with Oerlikon Balzers, belongs to the Surface Solutions Segment of the Switzerland-based Oerlikon Group (SIX: OERL).

List of Exhibitors



STAND 22

www.polilapp.chem.polimi.it

PoliLaPP was inaugurated in 2009 in memory of Pietro Pedeferrì (1938-2008), founder of the Corrosion Research Group at Politecnico di Milano, full professor since 1983. He was the first to teach the course "Corrosion and Protection of Materials" in Italy. PoliLaPP performs several activities, including failure analysis on corroded structures, corrosion tests according to international standard as well as customized tests, corrosion engineering and materials selection with particular attention to their durability. PoliLaPP offers specialized courses on corrosion and protection of metals: all courses are organized in the form of front lectures, practical workshops, numerical exercises, analysis of case histories from the field. PoliLaPP counts many collaborations with leading companies in oil and gas industry, chemical industry and infrastructures and civil sector, in the field of corrosion, material selection and durability of metallic materials. The main research lines are: corrosion behavior of metallic materials in natural environments and industrial plants; cathodic protection; cathodic prevention of reinforced concrete and of stainless steels in natural environments (Pedeferrì's Diagrams); corrosion by direct current and alternating current interference on steel under cathodic protection condition; probabilistic models for the assessment of localized corrosion of stainless steel; hydrogen embrittlement; titanium electrochemical and thermal oxidation for surface functionalization.



STAND 7

www.pontlab.it

Testing analysis and measurement laboratories on materials, components and products. Consulting and development of research projects. Multidisciplinary approach and modern technology. This is how we support our customer and we combine advanced technical competences, laboratory examinations and controls to find innovative solutions.

"Analysis WORKSHOPS for Innovation"

- MATERIAL SCIENCE: Chemical analysis, Chemical/physical characterization, Failure Analysis, Metallographic analysis, Chemical Imaging, Analysis of corrosion, Research of new materials.
- STRESS-CORROSION CRACKING TESTING in chloride and sulfide environment: Dead weight testing, Proof ring, Slow strain rate creep, Autoclave testing.
- ENVIRONMENTAL TESTING: Resistance to solar radiation, Thermal shock resistance, Thermal and humidity cycles, Ozone resistance, Corrosion resistance, Erosion resistance.
- MECHANICAL AND FUNCTIONAL TESTS: Fatigue stress, Static stress, Vibration tests, Shock tests, Functional tests, Physical testing on Leather and tissues.
- NON DESTRUCTIVE TESTING: Liquid red penetrants, Fluorescent penetrants, Magnetic particles.
- METROLOGY AND PROTOTYPING: Fixed and portable CMM with contact measuring heads, Stationary and portable CMM with laser scanning measuring heads, Industrial computed tomography, Comparison between measurements and reference mathematical models, Reverse Engineering and prototyping.



STAND 26

www.seaguard.it

Seaguard Italianodi Srl established in Italy in 1972, - an associated company of Seaguard LTD. (London, 1956) - has since been trading internationally in the design, production and supply of cathodic protection systems. It is currently associated from 2012 to Canada Metal Pacific. With its staff experienced for more than 40 years and constant research and experimentation in the field of corrosion and cathodic protection, the company can offer a very high level of specialization and technical support, which are among its most remarkable characteristics. Thanks

to a complete range of cathodic protection materials, an experienced staff and its cooperation with some representative companies, Seaguard can provide technical assistance from the design stage through manufacturing and installation, including surveys and inspection. Main products for the cathodic protection are the following:

- MMO Titanium anodes in various shape and dimension (string - tubular - wire - plates)
- High silicon iron anodes (string - canister - stick)
- Transformer Rectifiers (automatic - manual - remote controlled) from 1A to 1000A output
- Permanent and portable reference electrodes (Cu/CuSO₄ - Zinc - Ag/AgCl)
- Zinc, Aluminium and Magnesium sacrificial anodes

List of Exhibitors

STAND 4b

www.tecnosystemgroup.com



Design and realization protection systems.
 Design and realization of cathodic protection systems.
 Remote monitoring of cathodic protections systems.
 Remote controle service for the pressure reductions groups.
 Remote telemetry service for gas counters.

STAND 10

www.thermocalc.com



Thermo-Calc Software is a growing company, founded in 1997 and specialises in developing software for computational materials engineering. Our software products are used for both fundamental research and applied research, such as design of new alloys, optimisation of processing conditions, failure analysis and much more.

Our flagship product Thermo-Calc is licensed to more than 1000 organisations which are distributed and used in more than 70 countries by industry, government and academia for aerospace, automotive, energy, fabrication, primary metals and more. With a large and growing user base, Thermo-Calc Software looks forward to continuously providing our customers with new tools which will serve the scientific and engineering communities.

Different types of corrosion can be considered using Thermo-Calc Software's tools.

- Aqueous Corrosion
- High temperature gas corrosion
- Metal dusting
- Internal oxidation
- Degradation of coatings through inter-diffusion
- Molten salt corrosion

STAND 9

www.trentoncorp.com



Matériel Anticorrosion

Trenton Europe – subsidiary of Trenton Corporation, U.S.A.

Trenton Corporation is a privately owned American company. Since 1949 the Trenton Corporation has pioneered the development of petroleum wax-based anticorrosion products. Thousands of miles of pipelines are now protected by Trenton systems throughout the world.

In 2008, Trenton Europe was formerly established to bring its excellent anticorrosion materials to the European market. The products include a selection of Wax-Tapes, Primers, Outerwraps, Hot-Applied Coatings.

What makes Trenton anticorrosion materials the product of choice?

Minimal surface preparation - Ease of application - User friendly - No special tools required - Conformable to irregular surfaces - Removable for inspection - Compatible with other coatings - No drying or curing time prior to backfill - Environmentally friendly - Clean FDS sheets - Noncarcinogenic - Corrosion protection for pipelines with operating temperatures up to 230°F/110°C

STAND 25

www.xctat.com



Xing Chan Tai-Anodes Technology (Beijing) Co., Ltd (XCTAT) has been and continues to be a premier Research & development frontline and manufacturer of sacrificial anodes, impressed current anodes, transformer rectifier, Cathodic potential intelligent acquisition system, reference electrode and test station.

XCTAT ensures quality, competitive pricing and supports to all our distributors around the world. We fully guarantee that all of our products are the highest caliber of quality and consistency. We are committed in forming long-lasting synergetic relationships with all our clients.