EUROPEAN FEDERATION OF CORROSION

E-Newsletter

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http://www.efcweb.org

Dear Readers,

The big event since the highly successful EUROCORR in Seville (see short report herein) has been the China Academy of Sciences and EFC joint conference in Chongqing. By all accounts this was very successful and we have a report later in this newsletter. Among other good things there is a report on the activities of the Nuclear Working Party who, in our opinion, have been exemplary in terms of their activity, ability to get full papers produced for EUROCORR, and giving out prizes!

There is also information herein about YOUNG EFC. The deadline for submissions for the Young Scientists' Grant (enhanced this year) is 15 February 2020.

This edition also contains info on EUROCORR 2020. Note the Deadline for papers is 15 January. There is also Information for Exhibitors. Note the special offer deadline of 20 February.

We hope you enjoy reading this newsletter.

Douglas Mills
EFC Newsletter Editor
Ruth Bingham
Assistant Editor

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A FEW WORDS FROM THE EFC PRESIDENT

To all the members of the European Federation of Corrosion

As the President of the EFC, it is a great honour and pleasure for me, to extend a few words to you, highlighting recent and upcoming EFC activities and events.

EFC is looking back with admiration and pleasure to EUROCORR 2019 in Seville, 8-13 September 2019, organised by SOCIEMAT under the inspiring and committed guidance of Pr Juan J. de Damborenea and his team. A broad international corrosion community converged at this yearly EFC flagship event bringing together researchers, engineers, and experts in corrosion science and engineering for networking, identifying new partners, initiating new collaborations, exchanging new results, improving new ideas, etc.

Another successful token of the increased international outreach and bridging corrosion communities across the globe has been the co-organisation of the first International Conference on Corrosion Protection and Application ICCPA in Chongqing, China during 9-12 October 2019.

More than 400 well-known experts engaged in corrosion and protection from China and abroad attended the conference to discuss new findings and establish new cross-continental collaborations: it was undoubtedly a great success and EFC is also looking forward to further intensifying our relations with our highly respected Chinese colleagues in the future!

Furthermore, I am very proud and pleased that the Young EFC community is growing fast, providing an active and interactive platform for networking across national borders among the young community of corrosionists within the EFC and connecting junior and senior scientists and engineers by an active mentoring program. Do not miss the opportunity to meet and discover the young generation of corrosion and protection people (http://efcweb.org/YoungEFC.html).

Looking further ahead: please note that the yearly "Corrosion Awareness Day" will be held on April 24th 2020. This is a worldwide event, organised on the initiative of the World Corrosion Organization (WCO).

EFC together with WCO encourages our Member Societies to prepare and organize various outreach activities to secondary schools, universities, local authorities, governments and the general public and, with the publication of White Papers, to raise the public and local and nationwide authorities' awareness of corrosion and corrosion control as well as to develop and implement an international recognition of the 24th of April as Corrosion Awareness Day each year.

Furthermore, time flies and as President of the EFC I hope that you will participate in EUROCORR 2020 as it is undoubtedly the highlight of the yearly agenda of corrosion related events in Europe. So please save the dates of September 6-10, 2020 during which EUROCORR 2020 will take place in the beating heart of Europe - Brussels, Belgium. Please keep an eye on the submission deadlines for your contributions to the program!
Looking forward to meeting you again!

Arjan Mol, EFC President

REPORTING FROM EUROCORR 2019

SEVILLE, SPAIN, 9-13 SEPTEMBER 2019 (EFC EVENT NO.459)

Theme: New times, new materials, new corrosion challenges

We would like to congratulate and thank the EFC member Society Sociedad Española des Materiales (SOCIEMAT) and its partners for organising a very successful **EUROCORR 2019** in Seville.

With more than 1200 attendees from 49 countries, 699 oral presentations in up to 16 parallel sessions, 180 posters and 40 exhibitors, EUROCORR 2019 has again proved that the EUROCORR series is of the highest interest and an important platform for exchange and networking for the worldwide corrosion community.

The participants especially appreciated the good organisation, the delicious food and the beautiful town of Seville, that many had the opportunity to further discover thanks to the concert organised in the Cathedral.

The conference was opened on the Monday evening by SOCIEMAT President and chair of EUROCORR 2019 Juan de Damborenea and EFC President Arjan Mol. After the opening addresses, the European Corrosion Medal was awarded to Professor Fátima Montemor (Universidade de Lisboa, Portugal; and EFC Honorary Fellowships were presented to Dr Liane Margaret Smith (Larkton Ltd, UK), Ulf Kivisäkk (AB Sandvik Materials Technology, Sweden) and Marcel Roche (Elf Aquitaine Group and Total, France, retired).

On the Tuesday morning the plenary lecture was given by Prof. Manuel Morcillo (Past President of the International Corrosion Council) on "Weathering steels for marine atmospheric services".

The Wednesday morning opened with a plenary lecture on "New trends for testing materials for the oil and gas industry" by Prof. Oscar R. Mattos (Federal University of Rio de Janeiro, Brazil).

A plenary lecture entitled "The recyclability challenge of new materials" was delivered on the Thursday morning by Prof. Alicia Valero Delgado (University of Zaragoza, Spain).

The conference Gala Dinner took place on the Thursday evening at Robles Aljarafe, Castilleja de la Cuesta, and the Friday morning opened with a plenary lecture on "Durable reinforced concrete structures – some electrochemical aspects" by Prof. X. Ramón Nóvoa (University of Vigo, Spain). Finally, at lunchtime on the Friday, the organisers of EUROCORR 2019 passed the EFC “EUROCORR” sculpture to the 2020 organisers (see picture).

Handing over the Baton !

EFC Poster Award 2019

The Federation congratulates the winner of the Young Authors' **EFC Poster Award 2019**, **Mr. Vitor Bonamigo Moreira** (Universitat Politècnica de Catalunya, Spain) for an outstanding poster contribution on the ‘*Influence of alloying elements in the electro-assisted deposition of zirconium conversion coating on aluminium*’;
co-authors: Georgina Fabregat[1], Jane Zoppas Ferreira[1], Carlos Aleman[1], Alvaro Meneguzzi[2], and Elaine Armelin[1] ([1]Universitat Politècnica de Catalunya, Spain; [2]Universidade Federal do Rio Grande do Sul, Brazil).

Vitor Bonamigo Moreira receives best poster prize from Wolfram Fürbeth

In addition, various specific prizes in the field of Nuclear Corrosion were presented by the relevant Working Party (WP4) during their session. For details, see “News from Working Parties and Task Forces”.

YOUNG EFC MEETING 2019

Attendees of the Young EFC meeting

The annual **Young EFC** Meeting took place on 10 September 2019, in the frame of the EUROCORR 2019 Conference in Seville (Spain). The meeting was attended by about 80 participants, mainly PhD students, post-doc research fellows and young scientists at the early stage of their career in industry. Senior scientists attended the meeting as well, to support the Young EFC activity and to promote a fruitful discussion with junior scientists.

The main highlights from the meeting were:

- the winners of the EUROCORR Young Scientist Grant 2018 presented their experience abroad as visiting PhD students financially supported by the award from EFC:
  Mrs. Darya Rudomilova (University of Chemistry and Technology Prague, Czech Republic)
  Mr. Paul Johan Denissen (Delft University of Technology, the Netherlands)
  Mr. Leonardo Iannucci (Politecnico di Torino, Italy)
- **Dr. Dirk L Engelberg**, (The University of Manchester, UK) and **Dr. Ulf Kivisäkk**, (Sandvik Materials Technology, Sweden) inspired the young scientists by sharing their professional and personal experience in the corrosion field
- **Mrs. Marlene Silva** from Elsevier brought to the stage the Editorial/Advisory board of the Corrosion Science journal: **Prof. J.M.C. Mol, Prof. O.R. Mattos, Prof. B. Tribollet, Prof. P. Marcus** and **Prof. D.J. Young**. They provided the audience with useful suggestions for properly preparing a manuscript to be submitted to Corrosion Science and they shared their vision and approach to handle and manage the submissions.

The meeting has proved to be a platform for corrosionists at an early stage of their careers to interact with the senior scientists coming from both academia and industry. At the end of the meeting, the junior and senior scientists had the chance to "get-together" during the traditional social event, with everyone proudly exhibiting their gorgeous "May the corrosion be with you" bag!

On 9 September 2019, just before the opening ceremony of the EUROCORR Conference, the Young EFC board organized the "Scientific Dissemination Workshop: Explaining Science" conducted by a scientist from The Big Van Science (www.bigvanciencia.com) with the aim of improving communication skills and the capability to disseminate scientific concepts. The participants were involved in the intriguing and interactive activities of the workshop and developed new soft skills as science communicators. Due to the enthusiastic feedback from the attendees, similar soft skills related seminars/workshops will be organized during the next EFC events.

The Young EFC bag

What is next?

- 24th April Corrosion Awareness Day 2020
- Young Scientist Grant 2020
- Poster Prize 2020
- Young EFC Meeting @ EUROCORR2020 in Brussels

Any idea? Comments? Suggestions? Contact us by e-mail! YoungEFC@efcweb.org

UPCOMING EUROCORR 2020

BRUSSELS, BELGIUM – 6-10 SEPTEMBER 2020 (EFC EVENT NO. 459)

Theme: Closing the gap between industry and academia in corrosion science and prediction

INVITATION AND CALL FOR PAPERS

As the 2020 hosts of the renowned annual corrosion congress EUROCORR, the Belgian EFC Member Society VOM, together with the European Federation of Corrosion, EFC, and DECHEMA, cordially invite you to attend EUROCORR 2020.

The EUROCORR 2020 Congress has the theme of "*Closing the gap between industry and academia in corrosion science and prediction*". The scientific programme of EUROCORR will give you an opportunity to catch up with the most recent and reliable scientific results and the latest industrial achievements, and to take part in the development of new standards and regulations in the subject of corrosion control. As always during EUROCORR, 12 to 14 parallel sessions will run each day, some dealing with the most important general corrosion problems and some focusing on those specific to each branch of industry.

Plenary speakers: Prof. Maria Forsyth (Australia); Theo Hack (Germany); Giuseppe G. Daquino (Belgium); Dr Carol Frances Glover (USA; **YoungEFC** proposal); Dr Oumaïma Gharbi (France; **YoungEFC** proposal)

Special joint sessions in addition to the traditional EUROCORR topics:

- Coatings for High Temperatures (WP3 + WP 14)
- Environmentally-assisted Crack Initiation (WP4, WP5 + WP22)
- Corrosion in Low Carbon Energy Technologies (EFC: WP13, WP15, TF G.E.+ WCO)
- Microbial Corrosion in Marine Environment (WP9 +WP10)
- Cathodic Protection in Marine Environment (WP9 + WP16)
- Ancient Metals in Marine Environments: Corrosion Mechanisms and Protective Treatments (WP9 + WP21)
- Corrosion in Concrete and Cathodic Protection (WP11 + WP16)
- Additive Manufacturing in Oil & Gas Applications (WP13)
- Coatings for Tribocorrosion Systems (WP14 + WP18)
- Polymers in Organic Coatings (WP14 + WP19)
- Corrosion Monitoring: Way to Predict Atmospheric Corrosion (WP 17, WP22 and TF A.C.)
- Corrosion and Corrosion Protection of Additive Manufactured Metals (VUB)
- Corrosion and Corrosion Protection from Micro- to Nano-scale. Towards Long-term Durability of Miniaturized Systems (mCBEEs)]

For the complete listing of the topics, see: https://eurocorr.org/EUROCORR+2020/Sessions

The call for papers is open!

Deadline for abstract submission: **15 January 2020**

Instructions for abstract submission and the online submission form are available on the congress website: https://eurocorr.org/2020.

For partnership and exhibition opportunities, see https://www.eurocorr2020.org/partnership-and-exhibition/

For general information concerning EUROCORR 2019, please visit the congress website at: https://www.eurocorr2020.org

We are looking forward to your contribution and participation at EUROCORR 2020!

EUROCORR YOUNG SCIENTIST GRANT 2020 - CALL FOR APPLICATIONS

The EUROCORR Young Scientist Grant will be presented for the fifth time during EUROCORR 2020. The grant will provide financial support to junior corrosionists to enable them to visit and interact with other corrosionists at their respective institutes and to discuss research issues of mutual concern relevant to the field.

Thanks to a donation of the Chinese Society for Corrosion and Protection (CSCP), the grant will be augmented to 4 grants of up to €1,500 or 3 grants of up to €2,000; further, the CSCP will grant direct support to one recipient out of the 3 or 4 awarded, if collaboration includes travelling between China and Europe.

The Deadline for submission of applications is **15 February 2020**.

Further information is available on the EFC webpage at https://efcweb.org/YSG.html

EUROCORR 2020 - INFORMATION FOR EXHIBITORS

SPECIAL OFFER: EXHIBITION BOOTH & EFC AFFILIATE MEMBERSHIP

For the first time at EUROCORR 2020, exhibitors are offered a package including EFC Affiliate Membership and Exhibition Booths at a discounted price:

- 25% on the booth (for a standard booth of 6m^2: €2,100 instead of €2,800)
- 16% on the Affiliate Membership
  - for companies: €1,300 instead of €1,550
  - for research laboratories and universities: €865 instead of €1030

(All prices excl. VAT)

The EFC Affiliate Membership is targeted at organisations seeking increased international visibility.

The deadline to register for the offer is **28 February 2020**.

More information and the application form are available on the EFC website.

THE LOYALTY PROGRAMME

The EFC has set up the Loyalty Programme, a reward system granting priority in choosing the booth location to its most committed exhibitors. The Loyalty Programme aims to achieve a fair reward system for all exhibitors, and is governed by the following priority rules:

1. Exhibitors booking one year in advance at the preceding EUROCORR,
2. Main EUROCORR sponsors,
3. Affiliate Members,
4. Long-time returning exhibitors, according to a score calculated on the basis of participation to past EUROCORRs.

To enter the Loyalty Programme for EUROCORR 2020, exhibitors should register before **24 April 2020**.

More information and the registration form are available on the EFC website.

News from Working Parties and Task Forces

EFC Task Force on CO_2-Corrosion in CCS-Applications transformed

At its recent meetings in Seville, Spain, September 2019, the EFC approved the transition of the Task Force to a permanent EFC Working Party (WP).

Mission: With the increase of awareness related to Carbon Capture (Utilization) and Storage (CCS) technology and the worldwide introduction of these techniques to many fields in order to minimize carbon dioxide emission to the atmosphere, the safety of this technology is a widely discussed problem. Regarding corrosion, CO_2 and its precipitations can interact with the materials used for compression / transportation / injection of emission gasses from combustion processes. Therefore, the selection of appropriate materials and an understanding of the mechanisms are key factors for increasing the safety and reliability of the CCS technology as a basis for its realizability. This WP is devoted to the evaluation of the behaviour of different materials in certain CO_2-media, considering process-related circumstances and technical possibilities in Europe and worldwide. Open questions are addressed; possible solutions are elaborated and shown.

The Working Party aims at using the European network of experts to collect and merge the present understanding in the field of CO_2-related corrosion, identify the needs for further research, both in basics and application, evaluate existing testing methods, promote new investigation methods, and foster normative work on an international basis.

The Working Party is chaired by Dr. Ralph BÄSSLER, BAM – Federal Institute for Materials Research and Testing, Division 7.6: Corrosion and Corrosion Protection, Berlin, Germany

More information is available on the WP24 website at: https://efcweb.org/WP24

News from the Working Party 4 on Nuclear Corrosion

Henri Coriou Award 2019

The 2019 Henri Coriou Award for outstanding contributions to corrosion science and engineering in the nuclear field has been given to **Hans-Peter Seifert** (Paul Scherrer Institute, Switzerland) during the Nuclear Corrosion Summer School 2019 (NuCoSS-19, EFC event no. 440) last July; see the photograph, left to right: Stefan Ritter (WP4 Chair), Hans-Peter Seifert, Damien Féron (WCO President).

EXCELLENT NUCLEAR CORROSION SESSION DURING EUROCORR 2019 IN SEVILLE

We can look back to a very interesting and large nuclear corrosion session during the EUROCORR in Seville with 46 oral and 12 poster presentations (see the session assembly on the right photo below). The start of the session focused mostly on environmentally-assisted cracking of Ni-base alloys and was dedicated to **Loa Gómez-Briceño** (CIEMAT, Spain, see left photo below, left to right: Stefan Ritter, Loa Gómez-Briceño) who, after successfully working in the nuclear corrosion research for almost five decades, started her well-deserved retirement right after the conference.

The session then continued with fuel cladding and flow-accelerated corrosion related topics and the whole Wednesday was devoted to corrosion issues in nuclear waste disposal systems. On the Thursday different nuclear corrosion topics were presented before we finished with the Fall Business Meeting of the WP4.

This WP is to be particularly congratulated for the high percentage of full papers that it provided in electronic form in the conference proceedings.

WP 4 PRIZES AWARDED DURING EUROCORR 2019

The prize for the **best oral presentation** of the 2019 Nuclear Corrosion Session has been awarded to **Annesha Das**, Homi Bhabha National Institute, Mumbai, India (see photo, left to right: Stefan Ritter, Annesha Das) for the presentation '*Effect of surface preparation on oxidation of austenitic SS 304L in high temperature water*'; co-authors: Supratik Roychowdhury, Vivekanand Kain (BARC, Mumbai, India).

The prize for the **best poster presentation** of the 2019 Nuclear Corrosion Session has been awarded to **Sriharitha Rowthu**, Paul Scherrer Institute, Switzerland (see photo, left to right: Laure Martinelli (WP4 Vice-Chair), Sriharitha Rowthu) for the poster '*Assessment of the Pt nanoparticle distribution on oxidized stainless steel surfaces by electrochemical techniques'*; co-authors: Pascal V. Grundler, Yu-Wei Yeh, Stefan Ritter (all PSI, Switzerland), Reuben Holmes (NNL, UK).

Please note that during EUROCORR 2020 both prizes will be awarded again! More information is available on the EFC-WP 4 website.

JOINT SESSION DURING EUROCORR 2020 ON EAC INITIATION

Additional to the 'regular' nuclear corrosion session, a joint session on environmentally-assisted crack initiation will be organised during EUROCORR 2020 in Brussels (September 6-10, 2020) together with WP5 (Environment Sensitive Fracture) and WP22 (Corrosion Control in Aerospace). The aim of this joint session is not only to bring together academics and industrials concerned with EAC initiation, but also to gather scientists and engineers from different industry sectors. Regardless of the different materials of interest, e.g. stainless steels and Ni-base alloys in the nuclear industry or light-weight alloys in aerospace, the approaches and methods used to gain new insights on the EAC initiation behaviour may be of interest in all kind of industries or different academic fields. The joint session intends to collect oral and poster presentations on EAC initiation.

Please submit your abstract online via www.eurocorr.org before **January 15, 2020.**

Working Party website: www.efcweb.org/WP4.html

EFC Event Reports

International Conference "Corrosion in the Oil & Gas Industry"

St. Petersburg, Russia, 22-24 May 2019 (EFC Event No.446)

The International Conference "Corrosion in the Oil & Gas Industry" took place on 22-24 May 2019 at the Research Institute of new materials and technologies of Peter the Great St. Petersburg Polytechnic University and was co-organised by NACE international.

More than 350 participants participated in the Conference of which about 100 were foreign experts from more than 20 countries, including Austria, China, the Czech Republic, France, Germany, USA, Israel, Japan, the UK, Egypt, India, Italy, Kazakhstan, Slovakia, Sweden, Ukraine. Among the Russian participants, the majority of specialists were from St. Petersburg (105 participants) and Moscow (117 participants), but 47 other regions of Russia sent their specialists to participate in this event.

The main participants of the conference were leading corrosion engineers, laboratory managers, researchers and graduate students, technical directors, and representatives of the management teams of Russian and foreign companies and higher educational institutions.

Unprecedented in scale, scope and representation, the conference was an event whose tasks go beyond the boundaries of the industry, determining the orientations of the modern high-tech industry and the global economy as a whole.

A prerequisite for the organisation of the conference was the need to discuss corrosion problems and related processes - the main factors that reduce the reliability of equipment. These problems arise at all stages of the life-cycle of hydrocarbon production - from drilling and production to pipeline transport and processing. Losses due to equipment accidents and the subsequent repair operations and downtime amount to hundreds of millions of dollars. Thus, one of the key tasks facing the international community of oil and gas producing and refining companies is the development of complex, often non-standard, approaches to improving equipment reliability and protecting materials from the aggressive effects of operating conditions.

With over 130 speakers presenting their visions and solutions to a range of problems, the conference included presentations on the following topics: Analysis of the causes of failures, Cathodic protection, Corrosion at oil refineries and petrochemical enterprises, Corrosion mechanisms and test methods, Corrosion monitoring, Marine corrosion, Coatings and inhibitors, Construction and operation of wells, Pipeline transportation.

Vitaliy Sergeyev (St. Petersburg Polytechnic University), Robert Chalker (NACE International), Donald Terry Greenfield (NACE International), Maxim Nedzvetsky (Gazprom VNIIGAZ), Gunter Schmitt (President International Corrosion Council - ICC) and other experts made reports at the plenary session.

Contributions in English were published in Scopus and Web of Science E3S Web of Conferences.
E- ISSN:2267-124

INTERNATIONAL CONFERENCE ON CORROSION PROTECTION AND APPLICATION (ICCPA 2019) TOOK PLACE IN CHONGQING

The two-day International Conference on Corrosion Protection and Application 2019" was successfully convened on 10th and 11th October in Chongqing. The event was sponsored by the European Federation of Corrosion (EFC Event No. 448), Chongqing Association for Science and Technology, and the Chinese Society for Corrosion and Protection and was hosted by the Southwest Institute of Technology and Engineering

With the theme of "technology sharing, coordinated development and construction of beautiful homeland" the conference aimed to strengthen international technology exchange and information sharing, seek cooperation opportunities and jointly deal with the challenges of corrosion. More than 400 well-known experts who were engaged in corrosion and protection from home and abroad attended the conference.

The opening ceremony was presided over by Professor Zhang Dawei of Beijing University of Science and Technology. Talks were given by Wu Hulin (director of Southwest Institute of Technology and Engineering), Professor Arjan Mol (EFC President), Professor Zuo Yu (honorary chairman of Chinese Society for Corrosion and Protection), and academician Pan Fusheng (chairman of Chongqing Association for Science and Technology). Twelve well-known experts at home and abroad, including Yu Tan Mingxing (vice chairman of Chongqing Association for Science and Technology), Zhou Kesong and Pan Fusheng (Chinese Academy of Engineering), Zhang Tongyi (Chinese Academy of Sciences), and Liu Yurong (deputy director of Chongqing Science and Technology Bureau) were invited to make thematic reports on the conference.

To further highlight the characteristics, directions and emphases of the corrosion protection and application specialties, the conference was subdivided into eight sessions or fora, including: corrosion control, failure analysis and protection technology for oil and gas pipelines, anti-corrosion technology for green power, research and application of thermal spraying technology in corrosion protection, atmospheric corrosion and protection, corrosion and protection of advanced steel materials, and advanced surface protection technology and materials for marine corrosion. Experts and scholars from universities, scientific research institutes and enterprises were invited to make 92 reports, and to partake in in-depth and detailed discussions with the participants. Extensive exchanges between experts and participants formed a positive interaction and everyone said they had benefited greatly from these exchanges

Twelve excellent oral reports and four excellent posters were selected at the conference. 258 submissions were received, of which 171 papers were included in the conference summary and collection of essays after strict evaluation by the Academic Board.

To further highlight the scientific research achievements in corrosion protection and application fields, an exhibition was held within the conference which displayed the latest product and service information of relevant enterprises, universities and research institutes, promoted the zero-distance integration of production, teaching and research, and laid a solid foundation for further discussions and negotiations between the supply and demand sides.

Participants in ICCPA 2019

FUTURE EUROCORRS – *THE EUROPEAN CORROSION CONGRESS*

SAVE THESE DATES!

EUROCORR 2021

19-23 September 2021, Budapest, Hungary

Motto: *Materials science and advanced technologies for better corrosion protection.*

EUROCORR 2021 is hosted and organised by the Hungarian Corrosion Society – HUNKOR in cooperation with Diamond Congress Ltd.

Website: http://eurocorr2021.org/

EUROCORR 2022

28 August - 1 September 2022, Berlin, Germany

EUROCORR 2022 is hosted by the German EFC Member Societies GfKORR and DECHEMA.

FORTHCOMING EFC EVENTS 2020

EFC Event No. 456
18-20 February 2020, Iserlohn, Germany
International Course on Corrosion and Scale Inhibition
Scope: Information on scientific and technical knowledge on corrosion and scale inhibition with special emphasis on application
Organised by IFINKOR in cooperation with EFC WP1
https://efcweb.org/-p-106106-EGOTEC-1c40807a01b839aab522ad81441bac76/_/Inhibitors%20Course_web.pdf

EFC Event No. 457
5-6 March 2020, Lyngby, Denmark
5th International Workshop and Seminar on Climatic reliability of electronics: Global Challenges and Perspectives
Scope: This programme includes a two-day focused seminar with invited presentations from industry and academia on various issues related to climatic reliability of electronics.
Language: English
Organised by ATV-SEMAPP in cooperation with EFC WP23
atv-semapp.dk/celcorr

EFC Event No. 455
9-11 June 2020, Antibes Juan-les-Pins, France
7èmes Journées Protection Cathodique et Revêtements Associés
Scope: This event on cathodic protection and associated coatings is devoted to end users as well as suppliers of equipment, designers, service companies, authorities, laboratories, universities and research centres. Progress accomplished in terms of science and techniques, standardisation, and certification of personnel will be addressed for all application sectors (buried, marine or concrete structures, internal components of equipment). An exhibition will complete this event.
Organised by CEFRACOR
www.cefracor.org

EFC Event No. 460
23-26 June 2020, Malaga, Spain
Symposium on Corrosion and Surface Protection Methods - CNMAT 2020
Scope: During the last decades, surface engineering has evolved from the first stage of development of surface treatment and coating methods to improve the corrosion and wear properties to a new scenario in which surface functionalization for all types of applications is the main objective. Nowadays, new surface development providing optical, electrical, magnetic, biomedical functionalities and resistance to their work environment is an important demand in many industrial sectors.
This symposium attempts to be a forum of discussion about the latest developments in surface treatments and coatings that combine functionalization with corrosion protection, paying special attention to the new experimental techniques that allow characterizing their properties.
Language: Spanish
cnmat2020.com/

EFC Event No. 451
19-24 July 2020, Cambridge, United Kingdom
Advances in Corrosion Protection by Organic Coatings
Scope: Presentations on latest advances in corrosion protection by organic coatings, including topics on pre-treatments and inhibitors.
https://personalpages.manchester.ac.uk/staff/stuart.lyon or ruthbinghamfreelance@gmail.com

EFC Event No. 459
6-10 September 2020, Brussels, Belgium
EUROCORR 2020
www.eurocorr.org www.eurocorr2020.org
(details see above)

For full details of these and a complete listing of many other future corrosion events held in Europe and throughout the world, go to the EFC Calendar of Events at: http://www.efcweb.org/Events.html

CONTACTS

Editor: Douglas Mills, dmills239@gmail.com
Assistant Editor: Ruth Bingham, ruthbinghamfreelance@gmail.com

The statements and opinions expressed in the e-newsletter are those of the contributors; the EFC assumes no responsibility for them.

LEGAL NOTICE:
European Federation of Corrosion (EFC)
President: Prof. Arjan Mol
AISBL
Avenue des Arts 56/4C
1000 Bruxelles
Belgium
Association No. : 0425.591.656
VAT No.: BE 0425.591.656

E-Mail: offices@efcweb.org
Website: www.efcweb.org

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