General Information

Contact and Registration

For organizational reasons we kindly ask you to register until 08. November 2023 at

IFINKOR – Institut für Instandhaltung und Korrosionsschutztechnik gGmbH (Institute for Maintenance and Corrosion Protection Technologies n.f.p.Ltd)

Course office: Mrs. A. Ernst, Prof. G. Schmitt

Kalkofen 4, D-58638 Iserlohn, Germany

Tel.: +49-2371-95970 Fax: +49-2371-959722 Email: office@ifinkor.de Internet: http://www.ifinkor.de

Registration Fee *)

The registration fee is EURO 1.700 which includes course notes, lunch, course dinner and coffee breaks. Accommodation, personal expenses and travel costs are the individual responsibility of the course participant.

*) The registration fee is VAT-free according to § 4.22 UStG (The registration fee may contain a Business Package, the VAT of which will be specified separately)

Registration Conditions

The receipt of the registration is considered a binding confirmation of the course participant. Following the receipt of the registration a confirmation and the invoice is sent to the course participant. For registered participants a cancellation is possible until 31. October 2023 free of charge. After this date 80% of the registration fee will be charged. In case of no-show or abandonment of the participation the full registration fee will be charged. Replacement of a participant is possible at all times.

Hotel

A list of hotels will be sent to the participants with the confirmation of registration. Hotel accommodation is not part of the registration fee.

The GfKORR

The GfKORR – Gesellschaft für Korrosionsschutz e.V. (German Society for Corrosion Protection) is an interdisciplinary association of experts from industry and R&D, aiming at reducing corrosion and consequential damages in all eligible areas of life and technology. The GfKORR dedicates itself to comprehensive root cause analysis and supports efficient knowledge transfer in all areas of corrosion to improve integrity of assets, safer living and environmental protection.

The IFINKOR

The Institute for Maintenance and Corrosion Protection Technologies n.f.p.Ltd. (IFINKOR) is based in Iserlohn in the state North-Rhine-Westfalia of Germany. It was founded in 1990 as an independent non-for-profit company at the South-Westfalia University of Applied Sciences for bridging the gap between academia and industry and to offer knowledge, expertise, experimental services and innovation in the field of maintenance and corrosion protection. The focus is on investigation, testing and monitoring of materials corrosion performance and the durability of protection methods.

The WCO

It is the mission of the World Corrosion Organization to facilitate global implementation of best practices in corrosion protection for public welfare..

Further information at IFINKOR or GfKORR

GfKORR -

Gesellschaft für Korrosionsschutz e.V.

Geschäftsstelle Theodor-Heuss-Allee 25 60486 Frankfurt am Main Tel.: 069/7564-360/-436

Fax: 069/7564-391

E-Mail: gfkorr@dechema.de

Web: www.gfkorr.de



GfKORR – Gesellschaft für Korrosionsschutz e.V.

Intensive Course on Corrosion and Scale Inhibition Theory, Testing, Application



21 - 23 November 2023 IFINKOR, Iserlohn, Germany

organized by the
Working Party on Corrosion and Scale Inhibition of the
European Federation of Corrosion (EFC-Event-No.505)
in cooperation with GfKORR, IFINKOR
and the World Corrosion Organization







Introduction

Corrosion and scale inhibitors are functional chemicals which are added to corrosion systems in order to prevent corrosion failures, loss of technical efficiency, production downtime and unexpected maintenance costs. They are effective already at low concentrations in a wide range of environmental conditions and can be used in aqueous and non-aqueous media. Application includes oil and gas production and transport, energy production and distribution, production of metallic materials (specifically steel) and many other technical branches. The use of inhibitors is today indispensable to assure the integrity, safety, sustainability, and efficiency of plants and installations and constitute a smart solution in protecting industrial assets. The selection of appropriate chemicals or mixtures of functional substances is no "black magic", but has a sound scientific basis.

The course summarizes the present day knowledge in theory, testing and application of corrosion and scale inhibitors. The emphasis is on application in selected technical fields and discussion of environmental aspects. After explaining the registration of inhibitor chemicals within the European REACH regulation (Registration, Evaluation, Authorisation and Restriction of CHemicals) the questions will be discussed which chemicals will remain in future in the list of environmentally accepted substances and what strategies are available to select alternatives for presently still needed. however, environmentally less-friendly inhibitor compounds. In this context the hype for "green inhibitors" based on natural products will be discussed critically. Overall, the aim of the course is to provide enough information to enable course participants to tackle inhibitor problems efficiently.

Programme - 21 November 2023

13.00 **Opening**

Prof. Dr. Günter Schmitt
IFINKOR-Institute for Maintenance and Corrosion
Protection Technologies gGmbH, Iserlohn, Germany

13:15 Basics on electrochemical corrosion <u>Prof. Dr. Helena Otmačić-Ćurković,</u> Department of Electrochemistry,

University of Zagreb, Croatia

14:30 Mechanisms of corrosion inhibition

<u>Dr. Robert Lindsay</u> Corrosion & Protection Center, University of Manchester, United Kingdom

- 15:45 Break
- 16:15 **Prediction of inhibitor properties**Prof. Dr. Helena Otmačić-Ćurković, Croatia
- 17:15 End of Day 1
- 19:00 Dinner

Programme – 22 November 2023

08:30 Testing & efficiency monitoring: corrosion inhibitors

Prof. Dr. Günter Schmitt, Germany

09:30 Testing & efficiency monitoring: scale inhibitors

<u>Dr. Argyro Spintaki</u> Kurita Europe GmbH, Viersen, Germany

10:45 Scale inhibitors

<u>Dr. Argyro Spintaki</u> Kurita Europe GmbH, Germany

12:15 Lunch Break

13:30	Acid Inhibition Prof. Dr. Günter Schmitt,Germany
14:30	Inhibition in neutral and alkaline media Part 1 <u>Dr.Wolfgang Hater</u> Senior Corrosion Specialist, Germany
15:15	Break
15:45	Inhibition in neutral and alkaline media Part 2 Dr.Wolfgang Hater , Germany
16:30	Inhibition in oil & gas technology and flow systems Prof. Dr. Günter Schmitt, Germany

Programme – 23 November 2023

08:30	Inhibitors for temporary protection
	Prof. Dr. Günter Schmitt, Germany

09:30 **Green inhibition**<u>Dr. Wolfgang Hater,</u> Germany

10:30 **Break**

17:30 End of Day 2

11:00 REACH – Environmental aspects of corrosion and scale inhibitors <u>Dr. Wolfgang Hater, Germany</u>

12:15 Wrap-up & Final discussion

13:00 End of course