# **General Information**

## **Contact and Registration**

For organizational reasons we kindly ask you to register until 31. January 2025 at

IFINKOR – Institut für Instandhaltung und Korrosions-schutztechnik gGmbH (Institute for Sustainable and Anticorrosive Technologies n.f.p.Ltd). Course office: Mrs. A. Ernst, Prof. Dr. G. Schmitt Kalkofen 4, D-58638 Iserlohn, Germany Tel.: +49-2371-95970 Fax: +49-2371-959722 Email: office@ifinkor.de Web: www.ifinkor.de

### **Registration Fee**<sup>\*)</sup>

The registration fee is EURO 1.600 net which includes course notes, lunch, course dinner and coffee breaks. Accommodation, personal expenses and travel costs are the individual responsibility of the course participant.

#### **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 17. January 2025 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 route 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 Sustainable and Anticorrosive 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



Corrosion and Scale Inhibition Theory, Testing, Application



18 - 20 February 2025 IFINKOR, Iserlohn, Germany

organized by the Working Party on Corrosion and Scale Inhibition of the European Federation of Corrosion (EFC-Event-No.519) in cooperation with GfKORR, IFINKOR and WCO



## 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 – 18 February 2025

#### 13.00 Opening

Prof. Dr. Günter Schmitt IFINKOR - Institute for Sustainable and Anticorrosive 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** <u>Prof. Dr. Helena Otmačić-Ćurković,</u> Croatia
- 17:15 End of Day 1
- 19:00 Dinner
- Programme 19 February 2025
- 08:30 Testing & efficiency monitoring: corrosion inhibitors Prof. Dr. Günter Schmitt, Germany
- 09:30 Testing & efficiency monitoring: scale inhibitors Prof. Dr. Kostas Demadis, Department of Chemistry, University of Crete, Greece
- 10:45 Scale inhibitors <u>Prof. Dr. Kostas Demadis, Greece</u>
- 12:15 Lunch Break

- 13:30 Acid Inhibition Prof. Dr. Günter Schmitt, Germany
- 14:30 Inhibition in neutral and alkaline media Part 1 Dr.Wolfgang Hater 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
- 17:30 End of Day 2

#### Programme – 20 February 2025

- 08:30 Inhibitors for temporary protection Prof. Dr. Günter Schmitt, Germany
- 09:30 Green inhibition Dr. Wolfgang Hater, Germany
- 10:30 Break
- 11:00 **REACH Environmental aspects of corro**sion and scale inhibitors <u>Dr. Wolfgang Hater,</u> Germany
- 12:15 Wrap-up & Final discussion
- 13:00 End of course