

## Organisation

### Registration

For organisational reasons, please send your registration to:

GfKORR - Gesellschaft für Korrosionsschutz e.V.  
Theodor-Heuss-Allee 25  
60486 Frankfurt / Main  
Phone: +49 (0) 69 7564-360 /-436  
Fax: +49 (0) 69 7564-391  
E-Mail: [gfkorr@dechema.de](mailto:gfkorr@dechema.de)  
Web: <https://gfkorr.de/Veranstaltungen>

### Participation fees <sup>\*)</sup>

#### Members of GfKORR, EFC

- Part 1	270.- €
- Part 2	270.- €
- Part 1+2	460.- €

#### Non-Members

- Part 1	290.- €
- Part 2	290.- €
- Part 1+2	495.- €

<sup>\*)</sup> no VAT requested according to § 4.22 UStG

The registration fees include the conference documents.

### Conditions of participation

The receipt of the registration is considered as binding confirmation of the participant. Upon receipt, you will receive confirmation and an invoice for the order due. Registered participants can cancel in writing free of charge no later than 8 February 2022 for Part 1 and 8 March 2022 for Part 2. After this date 80% of the participation fee will be charged. In case of absence or cancellation of participation, the full participation fee is to be paid. Furthermore, you may nominate a substitute participant.

## Die GfKORR

GfKORR - Gesellschaft für Korrosionsschutz e.V. (Society for Corrosion Protection) is an interdisciplinary association of experts from industry and research whose objective is to reduce corrosion and prevent consequential damage in all relevant areas.

Corrosion and the consequential damages of corrosion cause annual costs in the billions in Germany alone, whereby almost all branches of industry and economic sectors are affected. If, in addition to the direct damage, the consequential costs due to loss of production or services are also taken into account, the overall economic damage is in excess of over 4% of the gross national product.

To enable effective corrosion control, GfKORR is dedicated to promoting profound causal research and efficient knowledge transfer in all areas of corrosion.

### For further information please contact

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Tel.: 069/7564-360/-436  
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E-Mail: [gfkorr@dechema.de](mailto:gfkorr@dechema.de)  
Web: <https://gfkorr.de>

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VDM Metals Gruppe



**GfKORR – Gesellschaft für Korrosionsschutz e.V.**



EFC Event No. 478

## Corrosion of Nickel Alloys in Aqueous Solutions and under High Temperature Corrosion Conditions and their Applications



**22 February 2022 (Part 1)**

**22 March 2022 (Part 2)**

**Online-Event**

## Introduction

The Webinar takes the audience into the world of Nickel alloys. It outlines the different mechanisms of the corrosion of Nickel alloys in aqueous solutions and at high temperatures. Applications of Nickel alloys in different industrial sectors are presented. Furthermore the attendants receive an insight view into recent development of new alloys.

## Programme – 22 February 2022 (Part 1)

### Corrosion of Nickel Alloys in Aqueous Solutions

13:00 Welcome

13:15 Nickel alloys – Answer to corrosion in aqueous environments

Types of corrosion, Aqueous environments, Acids, Oil and gas, Influence of alloying elements

Dr. Hubertus Schlerkemann  
Roetgen

14:15 Standard IG and CPT corrosion tests and their impact on practical applications

IG and CPT corrosion tests, High alloyed austenitic stainless steels, Nickel base alloys

Dr. Per Henrik Asteman  
Bayer AG, Leverkusen

14:45 Break

15:15 Applications of Nickel Alloys in Aqueous Solutions

Corrosion under reducing and oxidizing conditions, Seawater, Sodium Hydroxide, Sulfuric Acid

Dr.rer.nat. Iris Rommerskirchen  
Eisenbau Krämer GmbH, Kreuztal

## Programme – 22 February 2022 (Part 1)

15:45 Recent Developments in New Corrosion Resistant Nickel Alloys

New Ni-Cr-Mo and Ni-Cr-Fe-Mo-Cu alloys, Alloy 2120 MoN, Alloy 31 Plus, Alloy 825 CTP, Improved Wet Corrosion Resistance, Improved Fabricability and Weldability, Application Examples, Chemical Industry, Oil and Gas Industry, Flue Gas Desulfurization, Sea Water and Saline Environments

Dr. Helena Alves  
VDM Metals International GmbH, Altena

16:15 End of Part 1

## Programme – 22 March 2022 (Part 2)

### High Temperature Corrosion

13:00 High Temperature Corrosion

Part 1: Introduction and Fundamentals

Types of High Temperature Corrosion, Phenomena and Mechanisms, Thermodynamics, Kinetics, Role of Alloying Elements

Prof. Dr.-Ing. Michael Schütze  
DECHEMA-Forschungsinstitut, Frankfurt

13:45 High Temperature Corrosion

Part 2: Testing and Standardization

Thermogravimetric Testing, Long-term Exposure, Testing in Complex Environments, Post-experimental Examination, ISO-Standards

Prof. Dr.-Ing. Michael Schütze  
DECHEMA-Forschungsinstitut, Frankfurt

## Programme – 22 March 2022 (Part 2)

14:15 Nickel alloys in energy production: Special cases of high temperature corrosion

Waste to energy, Solarthermic power plants, Molten salt corrosion, Chlorine effect  
Prof. Dr. rer. nat. Michael Spiegel  
Salzgitter Mannesmann Forschung GmbH, Duisburg

15:00 Break

15:30 Requirements and Areas of Application of High-Temperature Nickel Alloys

High-temperature alloys, High-temperature corrosion, High-temperature strength, High-temperature components  
Prof. Dr.-Ing. Ulrich Brill  
Wetter (Ruhr)

16:00 New Developments of Nickel Alloys for Applications in High Temperature Corrosion Environments

Improved Metal Dusting behavior, Good combination of oxidation resistance and physical properties, Improved creep-resistance at high temperature, New NiCoCr-Superalloy with excellent processing and mechanical properties

Dr. rer. nat. Benedik Nowak  
VDM Metals International GmbH, Altena

16:30 End of Part 2

Unforeseen program changes are reserved.