Introduction

The German Society for Corrosion Protection (GfKORR e.V.) has set itself the aim of minimising the occurrence of corrosion damage in Germany through education. For this purpose, Korrosionum events are held annually and this one focusses on minimising corrosion and corrosion damage to electronic assemblies. Drawing on a broad, interdisciplinary knowledge the subject presented have been collected specifically for electronic assembly manufacturers.

The lecture programme will provide information on the application limits of the individual materials used in electronics and on the expected impacts of the environment. Corrosion failures in electronics are not exclusively limited to clearly detectable materials deteriorations but are primarily caused by electrical malfunctions based on the electronic conductivity of the corrosion products.

The aim of this Korrosionum is to inform attendees about corrosion problems that may be encountered and to provide guidance on how to solve them.

Target groups

<u>Electronic manufacturers:</u> quality assurance, process technology, environmental testing laboratory, analytics, production technology

<u>Electronic users:</u> automotive electronics, industrial electronics, renewable energies, aerospace and railway technology

About 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 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 livings and environmental protection.

Materials damages due to corrosion cost billions of Euros annually in Germany alone, affecting almost all branches of industry and economic sectors. Including secondary costs caused by loss of production or product performance, the overall economic damage amounts to more than 4% of the gross national product.

In order to enable effective corrosion prevention the GfKORR is dedicated to promoting sound basic research and efficient knowledge transfer in all fields of corrosion and materials protection. Remember: There is no technology without materials and there is no materials application without integrity evaluation.

For further information please contact:

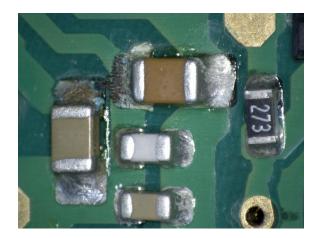
GfKORR -

Gesellschaft für Korrosionsschutz e.V.

Theodor-Heuss-Allee 25 60486 Frankfurt am Main Phone: +49 (0)69 7564-360/-436 E-mail: <u>gfkorr@dechema.de</u> Web: <u>https://gfkorr.de</u>



Korrosionum Basics for Electronics



26 October 2023 Online Event

in cooperation with



Programme – 26 October 2023

08:45 Welcome, introduction of participants and their specific focus Dr.-Ing. Helmut Schweigart Dr. O.K. Wack Chemie GmbH, Ingolstadt

09:15 Introduction to the topic

Dr. -Ing. Helmut Schweigart Dr. O.K. Wack Chemie GmbH, Ingolstadt

09:30 Copper alloys

Corrosion mechanisms, protection/ coatability <u>Prof. Dr.-Ing. Ralf Feser</u> FH Südwestfalen - Hochschule für Technik und Wirtschaft, Iserlohn

10:30 Break

11:00 Tin materials

Mechanism, protection options Dr.-Ing. Michael Schneider Fraunhofer IKTS, Dresden

11:40 Break

12:45 Aluminium materials

Corrosion types and mechanisms, corrosion resistance and protection/ corrosion resistant design and coatability <u>Dr.-Ing. Dietrich Wieser</u> Bonn

14:00 Break

Programme – 26 October 2023

Organisation

14:30 Nickel materials

Electrochemical characteristics of nickel and nickel coatings (galvanic, electroless), resistance in aqueous and organic media, performance in clean and contaminated gas atmospheres, feature of failures <u>Prof. Dr. habil. Günter Schmitt</u> IFINKOR Institut für Instandhaltung und Korrosionsschutztechnik gGmbH, Iserlohn

15:15 Zinc materials

Corrosion mechanisms, durability under corrosive gas and in humid environments, protection options <u>Dr. Frank Prenger</u> Grillo-Werke AG, Duisburg

16:00 Break

16:15 Silver metallization

Electrochemical characterization, resistance in aqueous environments, protection options and damage images <u>Dr.-Ing. Stefan Wagner</u> Fraunhofer Institut für Zuverlässigkeit und Mikrointegration, Berlin

16:45 Summary of the day

Dr.-Ing. Helmut Schweigart Dr. O.K. Wack Chemie GmbH, Ingolstadt

17:00 End of seminar

Unforeseen programme changes are reserved.

Host: GfKORR e.V. In cooperation with the Zestron Academy (https://www.zestron.com/en/academy)

Registration

For organisational reasons, please send your registration by **19 October 2023** to:

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

Participation fees *)

Members of GfKORR	670,-€
Non-Members	690,- €
Pensioners	200,- €
Students (under 30 years)	50,- €

*) no VAT requested according to § 4.22 UStG

The registration fees include the presentation slides.

Conditions of participation

Following receipt of the registration, a confirmation, and the invoice on the amount due will be sent to the course participant.

Registered participants can cancel in writing free of charge no later than **19 October 2023**. 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. A replacement of a participant is possible at all times.