The DECHEMA Corrosion Handbook Online

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The DECHEMA Corrosion Handbook Online

provides a comprehensive collection of knowledge which is unique both in scope as well as content. It covers corrosion data and the chemical resistance of all technically important metallic, non-metallic, inorganic and organic materials in contact with aggressive media. It contains information about the resistance, reliability, durability and sustainability of materials in view of corrosion and chemical resistance. Furthermore, it describes methods of corrosion protection and prevention. This makes it the prime information source worldwide for the selection of materials for equipment in which corrosive media are handled or processed.

The DECHEMA Corrosion Handbook... helps hold damage at bay.

Faced with the task of optimizing a given environment-material system, readers of this work will find answers to the following:

- Is there information available on the behavior of the material under consideration in a particular medium?
- Which materials are out of question for the proposed purpose?
- Which materials can be used without hesitation in the medium concerned?
- What are the conditions under which a less resistant, less costly material will give satisfactory service?
- Which material offers best performance for value under the given circumstances?
- What protective measures exist: inhibitors, coatings, cathodic protection, etc.?

Michael Schütze, born in 1952, studied materials sciences at the University of Erlangen-Nürnberg from 1972 to 1978, then joined the Karl-Winnacker Institute of the DECHEMA as a research associate. He received his doctorate in engineering sciences from the RWTH (Technical University) in Aachen in 1983, completed his habilitation in 1991, becoming a member of the external teaching staff of the RWTH. Since 1998, he holds a professorship there. He was appointed director of the Karl-Winnacker Institute in 1996 and Chairman of the executive board of DECHEMA Forschungsinstitut in 2012. He is recipient of the Friedrich-Wilhelm Prize, the Rahmel-Schwenk medal, the Cavallaro medal and the U.R. Evans Award, past Chairman of the Gordon Research Conference on Corrosion, editor of the Journal Materials and Corrosion Protection, Past-President of the European Federation of Corrosion Protection, Past-President of the World Corrosion Organization and Chairman of the Working Party Corrosion by Hot Gases and Combustion Products of the European Federation of Corrosion.

Roman Bender, born in 1971, studied chemistry at the Jütsch Liebig University of Gießen from 1992 to 1997. After he received his diploma he joined the Karl-Winnacker Institute of the DECHEMA in Frankfurt (Main) as a research associate. Since 2000 he has been head of the group materials and corrosion at the DECHEMA and editor in chief of the world’s largest corrosion data collection, the DECHEMA Werkstofftabelle, and the Corrosion Handbook. In 2001 he received his doctorate in natural sciences from the Technical University of Aachen (RWTH Aachen). In 2008 Dr. Bender was appointed chief executive officer of the GfKORR – The Society for Corrosion Protection. Furthermore since 2013, he has been the Scientific Secretary of the European Federation of Corrosion.
Ralf Feser, born in 1960, studied materials sciences at the University of Erlangen-Nürnberg from 1980 to 1986, and then joined the Max-Planck Institute for Iron Research in Düsseldorf. He received his doctorate in engineering sciences from the University of Clausthal-Zellerfeld in 1990, after which he worked for several years at the Metallgesellschaft. In 1996 he was appointed professor for corrosion technology at the University of Applied Sciences in Iserlohn, a position he still holds. Since 2005 he has also been one of the CEOs at the Institute for Maintenance and Corrosion Protection in Iserlohn, a board member at the Society for Corrosion Protection (GfKORR) and convener of the working party on “corrosion and corrosion protection of copper alloys”. Professor Feser is also head of the research board at the Hot Dip Galvanizing Organisation, and a member of several other organisations dealing with corrosion on a national or international level.

Bernd Isecke, born in 1955, studied chemistry and metallurgy and electrochemistry from the Technical University Berlin in 1977. The following year he joined the Federal Institute for Materials Research and Testing (BAM) in Berlin, initially as a project manager for research, becoming head of the Materials Protection and Surface Technologies Department in 2008. He has chaired and been on expert committees for European and national research programs, the boards of the Karl-Winnacker-Institute of DEHEMA and the Max-Planck Institute for Iron Research, and a member of several standard working groups. Professor Isecke is president of CEN TC 219 Cathodic Protection, Past-President of the European Federation of Corrosion, Chairman of the Society for Corrosion Protection (GfKORR), and the German delegate to the International Corrosion Council. He has published 120 articles, co-authored several books, and is editor of the journal Materials and Corrosion.

Thomas L. Ladwein, born in 1955, studied chemistry and metallurgy at the Universities of Saarbrücken and Münster, and graduated with a Diploma in Chemistry in 1980 and a PhD in Sciences in 1984. After that he worked as a R&D and application engineer for a chemical fabricator specializing in refractory metals. In 1987 he joined the stainless steel division of Thyssen AG (later ThyssenKrupp AG) and worked there in several positions in R&D, application engineering and technical marketing. Since 2003 he is full time professor for electrochemistry, corrosion and tribology at Aalen University of Applied Science. He works in various committees and working parties of DEHEMA, GfKORR (Society for Corrosion Protection), VDEh (German Iron and Steel Institute) and NACE International. He is the current chair of the NACE committee “STG 39: Process Industries – Materials Applications and Experience” and chairman of the NACE European Area. In 2011 he received the Herbert H. Uhlig Award from NACE International.

Karl-Günther Schütze, born in 1954, studied chemistry at the University of Frankfurt/Main, Germany. He joined the Karl-Winnacker Institute of DEHEMA for his diploma thesis in 1980 and started his PhD thesis at the corrosion department of the same institute. He received his doctorate in physical chemistry in 1983, and since 1984 worked as head of the corrosion laboratory of Degussa AG. Since 2002 he is head of the materials engineering group of Evonik Industries AG in Hanau-Wolfgang.

Günter Schmitt, born in 1942, studied chemistry at the Universities of Cologne and Aachen from 1962 to 1967 and received his doctorate in chemistry in 1971 and his habilitation in Technical Chemistry in 1978 at the Aachen University of Technology (RWTH). In 1983 he was appointed Professor for Chemical Engineering at the University of Bochum. In 1986 he was appointed Professor for Corrosion Protection Engineering at the Iserlohn University of Applied Sciences and became a member of the external teaching staff at the Institute of Technical Chemistry, RWTH. Since 2005 he is one of two CEOs of the Institute for Maintenance and Corrosion Protection Technology in Iserlohn. He is recipient of the Rahmel-Schwenk Medal and the European Corrosion Medal, Past-President of the German Society for Corrosion Protection (GfKORR), Chairman of the Working Party Corrosion and Scale Inhibitor of the European Federation of Corrosion, and Fellow of NACE International.

The Editors

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