REGISTRATION

Registration will open in June 2018. For more details please visit
www.dechema.de/efcws2018

REGISTRATION FEE*

Workshop	570 €

* All prices are VAT-free acc. to § 4.22.USTG

The conference ticket includes the book of abstracts, list of participants, meals and beverages during the breaks and the conference dinner.

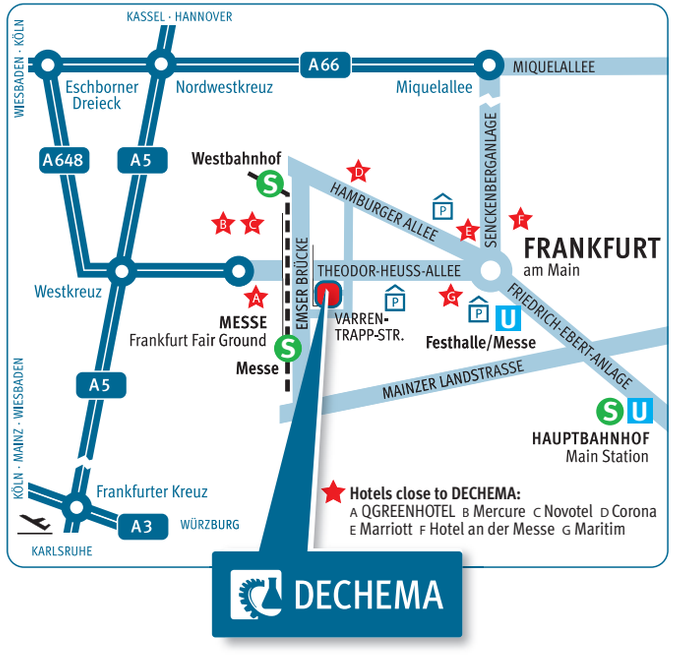
PUBLICATION

It is planned to publish refereed contributions after the Workshop in a special issue of the journal “Materials and Corrosion”. Authors who wish to submit their contributions for publication will be requested to deliver their manuscripts by the time of the Workshop. Details concerning the submission will be provided on the website.

GENERAL INFORMATION

VENUE

DECHEMA-Haus
Theodor-Heuss-Allee 25
60486 Frankfurt am Main
Germany
www.dechema.de



ORGANISER AND CONTACT

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Theodor-Heuss-Allee 25
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DECHEMA

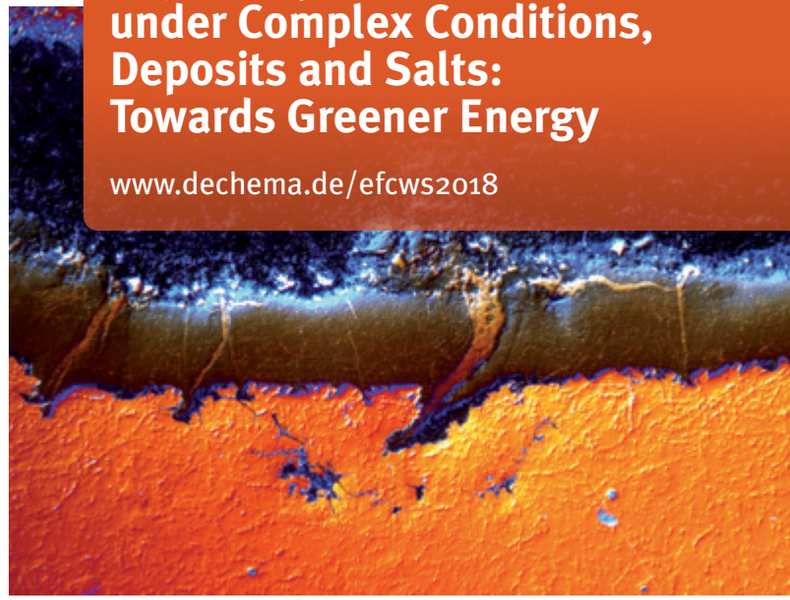
INVITATION / CALL FOR PAPERS

26 – 28 September 2018
DECHEMA-Haus · Frankfurt/Main

European Federation of Corrosion
Workshop

High Temperature Corrosion under Complex Conditions, Deposits and Salts: Towards Greener Energy

www.dechema.de/efcws2018



DECHEMA FORSCHUNGSINSTITUT
Stiftung bürgerlichen Rechts

GfKORR

EFC

EFC-Event No. 433

INVITATION

High Temperature Corrosion under Complex Conditions, Deposits and Salts: Towards Greener Energy

The current motivation to reduce CO_2-emmissions has driven the worldwide development of new technologies in energy conversion and transportation. Technologies such as oxy-fuel combustion, waste-incineration and biomass-fired power plants, concentrated solar power (CSP) plants or heat-storage units based on molten salts and ceramic granulate make high demands on materials, calling for new technologies and surface treatment.
The workshop from 26-28 September 2018 will bring together experts and young scientists with research interests in the high temperature corrosion of metallic materials and coatings in existing and emerging applications for greener energy conversion and transportation. The topics for oral and poster presentations may address but are not limited to experimental evaluation of corrosion kinetics, mechanistic understanding and modelling of corrosion processes and related degradation of material microstructures, using advanced analytical techniques for elucidating the complex corrosion phenomena including those induced by deposits and salts. It All those interested in the workshop with or without a contribution are cordially invited to attend. The event continues the very successful series of EFC-workshops organised over the past two decades by Michael Schütze and Willem (Jo) Quadakkers.
As usual the papers presented at the workshop will be peer-reviewed and published in a special issue of Materials and Corrosion.

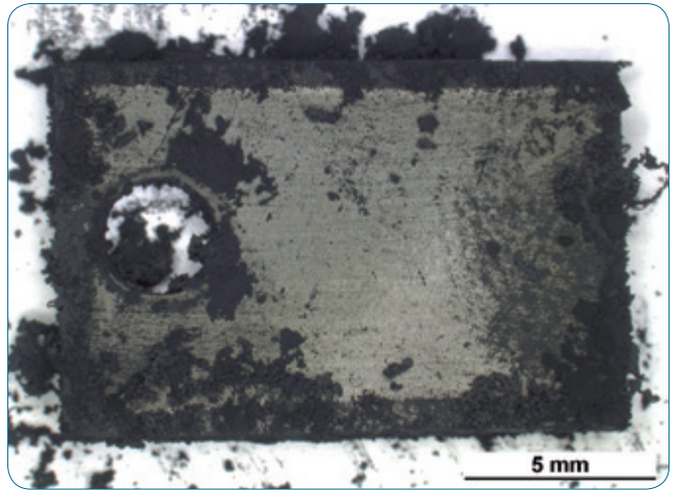
Technologies such as oxy-fuel combustion for subsequent CO_2-capture, using supercritical CO2 as a heat-transfer medium, waste-incineration and biomass-fired power plants, concentrated solar power (CSP) plants and heat-storage units based on molten salts and ceramic granulate, production of hydrogen and synthetic hydrocarbon-based fuels using surplus electricity generated from renewables (Power-to-X concept) promote a more environmentally friendly and sustainable approach and economic growth, they also entail new challenges in the development of high temperature materials.

Highly aggressive, complex atmospheres frequently prevail in the above mentioned applications with several reacting species, including oxygen, hydrogen and/or water vapour, carbon, sulphur and chlorine. In addition, component operation in molten salts or under deposits (ashes or condensates) may lead to accelerated corrosion attack in some of these applications. Simultaneously occurring erosion and corrosion processes are also encountered e.g. in some CSP designs. Finally, both conventional power plants and those based on novel energy conversion concepts have to withstand frequent thermal cyclic loads to compensate for the fluctuation in the generation of electricity from renewables. Reliable operation of the materials in the arduous conditions above requires detailed knowledge of the corrosion mechanisms and reaction kinetics. Comprehensive lifetime models, based on reliable thermodynamic and kinetics data are necessary to predict the degradation of materials and protective coating systems.

All those interested in the workshop with or without a contribution are cordially invited to attend.

Mathias Galetz
DECHEMA-Forschungsinstitut
Frankfurt am Main

Dmitry Naumenko
Forschungszentrum Jülich
Jülich



SUBMISSION OF ABSTRACTS / DATES TO NOTE

SUBMISSION OF ABSTRACTS

Authors wishing to present their scientific and technical results are asked to submit a one-page abstract by **13 April 2018** via file upload at

www.dechema.de/efcws2018

The abstract should not exceed one page (max. size 500 kb incl. figures) and should include the title, authors and their affiliation. A template is available on the website.

The selection of the presentations will be based on the review of the one-page abstracts by a Scientific Committee. Authors will be informed about the acceptance of their papers in June 2018.

The congress language is English.

DATES TO NOTE

December 2017	Opening of Paper Submission
13 April 2018	Deadline for Paper Submission
8 June 2018	Notification of Acceptance
End of June 2018	Publishing of Final Programme and starting of Registration