Program

Tuesday, Oct. 12, 2021
09:00 - 15:00 Plenary Session
15:30 - 18:00 Session 1
19:00 Evening Reception

Laudatio of Günther H. Oettinger, former Vice-President and member of the European Commission, on the occasion of the 90th birthday of Prof. em. Karl Kußmaul, former MPA director

Awarding of the Carl-von-Bach Commemorative Medal

Wednesday, Oct.13, 2021
09:00 - 17:00 Parallel Sessions

Venue

FILDERHALLE
Bahnhofstraße 61
70771 Leinfelden-Echterdingen
Germany
http://filderhalle.de

Accomodation

Please find a list of available rooms on our conference website

Sponsors

Interested companies will have the opportunity to present their products at the venue.
Please contact us.

MPA-Seminar

The MPA-Seminar is a traditional platform for representatives from industry, universities and associations to intensify professional exchange in the field of material and component behavior in energy and plant engineering, to deepen cooperation and to maintain personal relations. Since 1975 it has taken place regularly on a yearly basis and will be held in 2021 for the 46th time.

An attractive program with interesting presentations and subsequent discussions will bring a professional audience to Stuttgart again.

Participation on-site:

€ 425,- Speaker/Chairman both days
Poster exhibitor both days
€ 850,- Both days
€ 520,- Day ticket
€ 220,- Retirees both days
€ 120,- Retirees one day
free Students

Online Participation:

free Speaker/Chairmann both days
free Poster exhibitor both days
€ 460,- Both days
€ 110,- Retiree both days
€ 65,- Retiree one day
free Student (on enquiry, with student ID)

The conference fee includes access to the download area (abstracts and manuscripts) refreshments and luncheons during the seminar as well as the evening reception (for on-site participants).

Notice of Photography

Pictures will be taken during the whole conference and will be published on the conference website. If you do not agree with a publication please contact us.

General Information and Registration

https://www.mpa.uni-stuttgart.de/en/mpa-seminar-2021

Conference Organisation:

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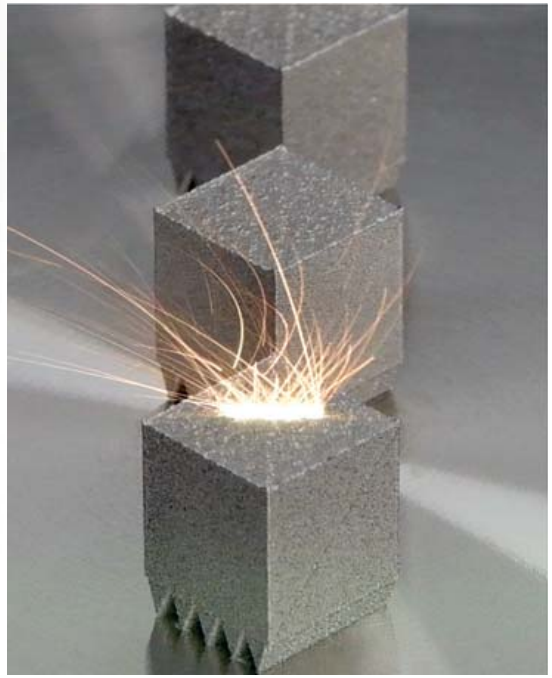
MPA STUTTGART
Materials Testing Institute
University of Stuttgart

Additive Manufacturing, Hydrogen, Energy, Integrity

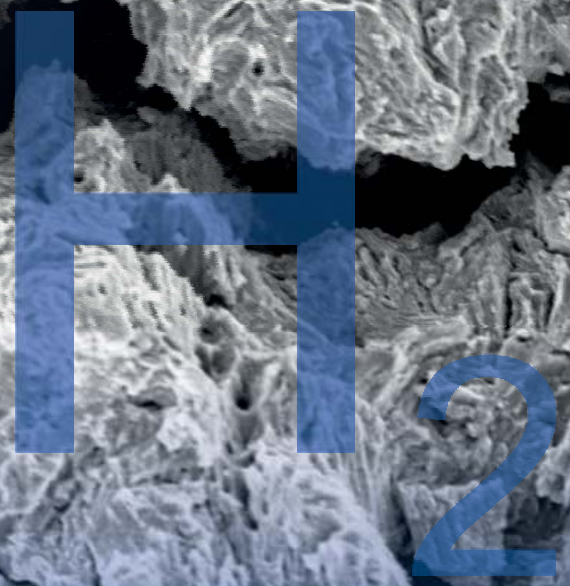
46th MPA-Seminar
October 12 - 13, 2021



VDI Württembergischer Ingenieurverein
VGB POWERTECH
DVS BEZIRKSVERBAND STUTTGART
VAIS Verband für Anlagentechnik und IndustrieService e.V.

Energy Transition, Additive Manufacturing, Hydrogen Applications, Integrity and Reliability

Rapidly changing societal demands as well as fast technical innovations are causing significant changes in many industries and are challenging for research and development. Materials are still key issue for these developments and ensuring quality and reliability. As a consequence development, characterisation and assessment of materials are essential for new technologies.



Plenary Session and Keynotes

- Challenges in Decarbonising the Energy Industry
- Materials and Additiv Manufacturing for Energy Transition
- Influence of Hydrogen in Component Behavior
- Quality Management in Additive Manufacturing and Properties of Additive Manufactured Components
- Reliability in Product Design and Predictive Maintenance

Additive Manufacturing

- Material Properties and Qualification
- Characterisation of additively manufactured Materials and Components
- Digital Twins for Additive Manufacturing
- Local Microstructure and Residual Stresses in WAAM Components
- Repair supported by Additive Manufacturing

High Temperature Materials

- Longterm Behavior of Martensitic Steels
- Mechanisms for Improvement of Martensitic Steels
- Properties and longterm Degradation of P91 Material and Welds
- Creep(-Fatigue) Life of P92, HR6W and Alloy 617
- Degradation Mechanisms of SUPER 304 H

Hydrogen Applications

- Hydrogen Transport in Pipelines
- Additive Manufacturing for Hydrogen Applications
- Performance of Ni Based Alloys for Hydrogen Applications

Integrity, Safety and Reliability

- Crack Arrest in Gas Pipelines
- Nuclear Material Integrity and Life Extension
- Materials and Component Assessment for Nuclear Safety
- System Reliability by Simulation Data

Life Assessment in Components and Plants

- Qualified Test Programs for Boiler Systems
- Advanced Materials and Manufacturing Methods to improve Plant Performance
- High Temperature Materials and Reliability Management