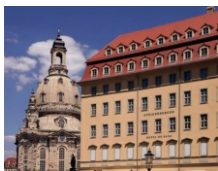


**Social Evening**

3.11.2022, 19:00

(included in registration fee)



Our evening event takes us to the historic city center of Dresden. At the Steigenberger Hotel de Saxe we invite you to end the first day of the conference with a view of the Frauenkirche. You can expect

interesting conversations in a pleasant atmosphere, culinary deliciousness and other highlights.

3.11.2022, 9:30 - 14:30

Price per person 55.00 €

**Meißen**

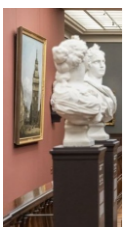
Meißen - a picturesque town on the Elbe offering a medieval townscapes is regarded as the cradle of Saxony. The Albrechtsburg, one of the first castle building in the German-speaking area, and the cathedral dominate the skyline. During the guided tour through the city of Meißen a lot of interesting and useful information resulting from a thousand-year history will be given

4.11.2022, 10:00 -12:30

Price per person 26.00 €

**"Welcome to the Sanctuary of Art"**

Guided tour through the reopened Semper Gallery



The reopening of the Gemäldegalerie Alte Meister (Old Masters Picture Gallery) in the Semper Building was eagerly awaited. It is a completely redesigned new permanent exhibition elevating the collection and building to what they had been originally designed for: a royal artistic pleasure within a palatial building. The rooms shine in a new magnificent light, technically as well as aesthetically. Never before

since Augustus the Strong had the pastels been staged more beautifully and never before could one experience the symbiosis between painting and sculpture more evidently. Both sister arts are exhibited directly next to one another to show their intensive interactions.

**Conference Venue**

Hotel Hiltone  
An der Frauenkirche 5  
01067 Dresden

Phone: +49 (0)351 86420

**Registration Fees**

Industry (presence participation)	1,100.00 €
Industry (online participation)	550.00 €

University/Academy/Authorities (presence participation)	600.00 €
University/Academy/Authorities (online participation)	275.00 €

Accompanying person at the social evening - 3.11.2022	60.00 €
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For a registration as a presence participant by September 16, 2022, we grant a discount of 50.00 €.

The registration fee includes food and refreshments during breaks, as well as lunch, proceedings and the social evening on November 3, 2022.

The registration form for the FAD-Conference you will find here:  
[www.fad-diesel.de](http://www.fad-diesel.de)

**ATTENTION!** If distance rules in the conference room again lead to a limitation of the number of participants, the places will be allocated in the order in which the registrations are received.

**Hotels**

**Hotel Hilton Dresden** (conference venue)  
An der Frauenkirche 5, 01067 Dresden, Phone: +49 351 86420

Single room	109,00 € (incl. breakfast)
Double room	134,00 € (incl. breakfast)

**Star G Hotel Premium Dresden Altmarkt**  
Altmarkt 4, 01067 Dresden, Phone: +49 351 307 110

Single room	95,00 € (incl. breakfast)
Double room	121,00 € (incl. breakfast)

**Hotel am Terrassenufer**  
Terrassenufer 12, 01069 Dresden, Phone: +49 351 4409 500

Single room	86,00 € (incl. breakfast)
Double room	118,00 € (incl. breakfast)

**Organiser**

Research Association For Combustion Engines  
Emission Control Technologies (FAD)  
- registered association -  
Gutzkowstr. 30  
01069 Dresden/Germany



Prof. Dr.-Ing. Gennadi Zikoridse, Executive Director  
Ms. Berit Reuter, Assistant to Executive

Phone: +49 (0) 351 647 53 977  
E-Mail: [konferenz@fad-diesel.de](mailto:konferenz@fad-diesel.de)  
Web: [www.fad-diesel.de](http://www.fad-diesel.de)

**Program and Scientific Direction**

Prof. Dr.-Ing. G. Zikoridse FAD e.V. /HTW Dresden

**Program Committee**

Executive Committee FAD e.V.

**Conference Language**

The conference language is German.

**ATTENTION!** We offer simultaneous translation German / English.

**Exhibition**

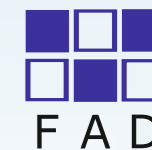
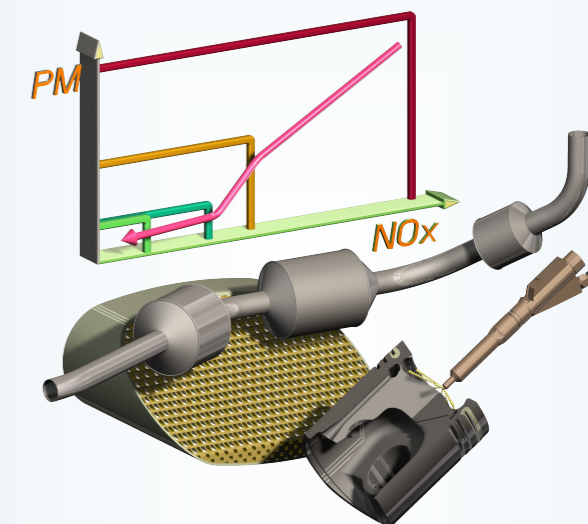
A technical exhibition will be organized at the conference venue. Besides the technical exhibition we offer various possibilities to present your company and products, e. g. advertisements in the conference book and as well as to add brochures and information material to the proceedings. If you are interested in exhibiting at the 19th FAD-Conference, please fill in the application form and send it to the FAD e.V. The application form as well as all relevant information are also available (as PDF for download) online: [www.fad-diesel.de](http://www.fad-diesel.de).

**Application deadline for exhibition 14.10.2022**

**Information on photographing**

During the event we take pictures for the purpose of publication on the conference CD, in information leaflets of FAD e.V., in trade journals and on our website [www.fad-diesel.de](http://www.fad-diesel.de). By your participation in the conference you also consent to the publication of photos showing you. If you do not wish this, please, inform our photographer or our assistants. we would also like to point out that online participation takes place via live stream from the conference room.

Research Association  
For Emission Control Technologies  
For Combustion Engines (FAD)  
-registered association-

**19. FAD-Conference****„The Challenge - Exhaust Aftertreatment“****INVITATION**

ONLINE OR PRESENCE PARTICIPATION

**3.11. - 4.11.2022 in Dresden**

9th FAD-Conference - winner of the "dresden congress award" 2012

## PREAMBLE

Ladies and gentlemen,


the 19th FAD conference will take place on 3/4 November 2022 with accompanying exhibition in Dresden and we would like to cordially invite you to it.

Under the impression of disrupted supply chains, constantly rising raw material prices and the deterioration in the consumer climate and, in contrast, the ambitious goals of the European "Fit for 55" package, we are facing very great challenges in the transformation of mobility towards CO2 neutrality. In order to achieve the set goal within the planned period, all possibilities must be exhausted, such as the diversification of fuels, the development and use of a drive portfolio tailored to the specific application, new mobility concepts and the comprehensive expansion of the infrastructure, to name a few important ones.

The selection of topics for this year's conference aims to present strategies and solution approaches for realizing CO2-neutral mobility. With the defossilization of the energy base, e.g. through the use of e-fuels and hydrogen, the initial conditions for exhaust gas aftertreatment are changing. The associated problems and solutions are also discussed, as are innovative engine and emission reduction concepts.

The accompanying trade exhibition again offers the platform to present the performance and the innovative potential of the exhibiting companies, universities, colleges and institutes within the framework of the conference.

We look forward to a conference with interesting presentations, many opportunities for professional discussions and the exchange of ideas. I would like to cordially invite you to be there in November in Dresden, whether in person or online.

  
Prof. Dr.-Ing. Gennadi Zikoridse  
Executive Director FAD e.V.



## PROGRAM

Thursday, 3th November 2022

09:00 **Welcome and Opening**  
Prof. Dr.- Ing. Gennadi Zikoridse, FAD e.V./ HTW Dresden, D

09:15 **Welcome address**  
Prof. Dr. rer. nat. Katrin Salchert, Rektorin HTW Dresden, D

**Session I: Hydrogen engines and exhaust aftertreatment for heavy-duty applications**  
Chairman: K. Schrewe, HJS Emission Technology GmbH & Co. KG

09:30 **H2 combustion engine with direct injection for using in heavy-duty truck applications with exhaust aftertreatment for future low emission requirements**  
Dr.-Ing. A. Broda, M. Weidner, D. Hyna, F. Lindner, T. Malischewski, J. Schmitt, MAN Truck & Bus SE, D

10:00 **The heavy-duty hydrogen internal combustion engine: towards ultra-low NOx emissions and high performance**  
Dr. X. Seykens, Dr. E. Doosje, Dr. C. Bekdemir, P. v. Gompel, TNO, NL

10:30 *Coffee break*

11:00 **A path towards ultra-low NOx emissions from Hydrogen Internal Combustion Engines**  
Dr.-Ing. T. Wolff, Dr. M. Geist, M. Pfeifer, Dinex Deutschland GmbH, D  
Dr. A. Moreno, Dr. K. Kallinen, Dinex Finland Oy, FI  
Dr. V. Huth, E. Brückner, T. Durand, FEV Europe GmbH, D

**Session II: New exhaust aftertreatment solutions**  
Chairman: K. Schrewe, HJS Emission Technology GmbH & Co. KG

11:30 **Electrically heated nozzle for use at low exhaust gas temperatures to reduce NOx**  
Dr.-Ing. G. Hühwohl, F. Feldhaus, Dr. A. Müschen, D. Lerche, Albonair GmbH; D

12:00 **Electric heated catalyst for emission reduction for Euro7**  
Dr.-Ing. G. Gaiser, T. Lehr, Purem GmbH, D

12:30 *Lunch*

**Session III: Research and development contributions**  
Chairman: Dr.-Ing. G. Hühwohl, Albonair GmbH, D

14:00 **Exhaust Emissions at the Co-combustion of biomass-based biofuels and hydrogen in a compression ignition**  
Prof. Dr. R. Juknelevičius, Vilnius Gediminas Technical University, LI

## PROGRAM

14:30 **Removal of formaldehyde, carbon monoxide and methane from gas engine exhaust by mean of novel iron oxide catalysts**  
Marcel Mehne, Prof. Dr. S. Kureti, TU Bergakademie Freiberg/ IEC, D

15:00 **Influence of new fuels containing silicon on exhaust aftertreatment components**  
Lars Wesemann, Prof. Dr.-Ing. Peter Eilts, L. Fuhrländer, Dr. M. Kolb, Dr. H. Wichmann, TU Braunschweig, D

15:30 *Coffee break*

**Session IV: Technologies for future mobility**  
Chairman: Dr.-Ing. G. Hühwohl, Albonair GmbH

16:00 **Raw materials for future mobility**  
Prof. Dr.-Ing. Uwe Gärtner, HTW Dresden, D

16:30 **Visions for future aircraft engines (Online)**  
Prof. Dr.-Ing. Friedrich Dinkelacker; Leibniz Universität Hannover, D

17:00 **Investigations on particle number and size distribution in a turbocharged DI-SI engine with regard to raw and tailpipe emissions**  
Prof. Dr.-Ing. J. Getzlaff, T. Dost, R. Schambach, Westsächsische Hochschule Zwickau, D

19:00 *Social evening*

Friday, 4th November 2022

**Session V: New fuels for future mobility**  
Chairman: Prof. Dr.-Ing. H. Hamdorf, Universität Rostock

9:00 **Euro 7/ VII – the end of the internal combustion engine?**  
Helge Schmidt, TÜV Nord Mobilität GmbH & Co KG, D

9:30 **The energy and mobility transition, how will we get around tomorrow**  
Prof. Dr.-Ing. Frank Atzler, TU Dresden/ IAD, D

10:00 **Ramp-up of regenerative fuels to reduce greenhouse gas emissions in the existing fleet**  
Prof. Dr. Thomas Garbe, Volkswagen AG, D

10:30 *coffe break*

**Session VI: New fuels for future mobility**  
Chairman: Prof. Dr.-Ing. H. Hamdorf, Universität Rostock

11:00 **Climate protection potential of "green" ammonia as a fuel**  
Prof. Dr. A. Michaelis, Dr. M. Jahn, Fraunhofer/ IKTS, D

## PROGRAM

11:30 **Ammonia as a fuel option for climate-neutral shipping - challenges, handling & first investigations**  
Till Mante, Prof. Dr.-Ing. B. Buchholz, Dr.-Ing. S. Prehn, Prof. Dr.-Ing. F. Mauß, Dr. L. Seidel, L. Mestre, Universität Rostock, D

12:00 **UBA study: Effects of additives on exhaust aftertreatment systems, emissions as well as environmental and human health**  
Dr. S. Crusius, Dr. M. Müller, S. Seehack, Dr. N.-C. Meyer, ERC Additiv GmbH, D; Dr.-Ing. H. Hoffmann, Dr.-Ing. K. Lucka, TEC4FUELS GmbH, D; Prof. Dr.-Ing. G. Zikoridse, O. Boblest, C.-G. Kummer, Dr. U. Hofmann, Argomotive GmbH, D

12:30 *Lunch*

**Session VII: New technologies for exhaust aftertreatment**  
Chairman: Prof. Dr. T. Garbe, Volkswagen AG

13:30 **Managing the balance between effectiveness and robust realization -On-board monitoring under upcoming EU-7 emissions standards**  
Thomas Körfer, V. Müller, M. Ehrly, H. Busch, FEV Group GmbH, D

14:00 **Experimental and numerical investigation of dry flue gas desulfurization**  
Christian Pfahler, R. Thorand, MAN Energy Solutions SE, D  
Dr.-Ing. R. Bank, FVRT GmbH, D  
Prof. Dr.-Ing. B. Buchholz, Universität Rostock, D

14:30 **Investigation of particle formation through the injection of urea water solution in commercial vehicle applications**  
Philipp Weinmann, L. Zimmermann, Dr. H. Többen, Dr. J. Hammer, Purem GmbH, D

15:00 *Coffe break*

**Session VIII: Alternative technologies**  
Chairman: Prof. Dr. T. Garbe, Volkswagen AG

15:30 **Defect engineering on precious metal - CeZr oxide supported catalysts for NOx reduction and CO oxidation**  
Lionel Ventelon, Dr. S. Danaci, ACG Glass Europe, B

16:00 **Decentralized use of hydrogen in the energy sector**  
Dominic Frodeno, 2G Energietechnik GmbH, D

16:30 **Biogas as a CO2-neutral fuel**  
Birgit Maria Wöber, gibgas e.V., D

17:00 **Summary and conclusion**  
Prof. Dr.-Ing. Gennadi Zikoridse, FAD e.V./ HTW Dresden, D