

SOCIAL PROGRAM

Get-together with keynote speeches and opening of the exhibition
5.11.2024, 6:30 p.m. (included in registration fee)

All participants are cordially invited to get to know each other in an informal atmosphere on the evening before the 21st FAD Conference, to visit the exhibition and to have initial technical discussions, inspired by the following keynote speeches:

“FAD e.V. – 24 years in the service of exhaust aftertreatment”
Prof. Dr.-Ing. Gennadi Zikoridse, HTW Dresden

“Clean Air is Our Mission – exhaust aftertreatment and more”
Klaus Schrewe, HJS Emission Technology GmbH & Co. KG

“HVO in the focus of ICE emission reduction”
Sebastian Heinecke, DEUTZ AG

Review of the milestones of emissions legislation
Dr.-Ing. Georg Hühthwohl, Albonair GmbH

Snacks have been prepared for your physical well-being.

Social Evening
6.11.2024, 7:00 p.m. (included in registration fee)



Our evening event takes us to the Neustadt side of the Elbe. Here we invite you to end the first day of the conference in a pleasant atmosphere with a view of the beautiful silhouette of Dresden's old town.

Caspar David Friedrich. Where it all began - guided tour of the special exhibition for the 250th birthday of C. D. Friedrich
6.11.2024, 12:30 p.m. - 3:00 p.m. Price per person 28.00 €



C.D. Friedrich, the most important painter of early German Romanticism, lived in Dresden for 42 years. The State Art Collections are celebrating his 250th birthday with a large special exhibition.

In addition to the painter's works, this also shows works by his friends and contemporaries and provides an insight into the artist's networks.

Richard Wagner Sites Graupa
7.11.2024, 10:00 a.m. - 1:30 p.m. Price per person 40.00 €



During the tour of the Richard Wagner sites in Graupa, you will learn why opera history was written in this small town near Dresden. You will gain an insight into the life and work of the famous composer and the role Dresden played in it.

INFORMATION

Conference Venue

Hyperion Hotel Dresden am Schloss
Schloßstr. 16
01067 Dresden
Phone: +49 (0)351 501200



Registration Fees

Industry (presence participation)	1200.00 €
Industry (online participation)	600.00 €
University/Academy/Authorities (presence participation)	700.00 €
University/Academy/Authorities (online participation)	325.00 €
Accompanying person at the social evening - 6.11.2024	80.00 €

The registration fee includes food and refreshments during breaks, as well as lunch, proceedings, the get-together (5.11.2024) and the social evening (6.11.2024).

The registration form for the FAD-Conference you will find here:
www.fad-diesel.de

Hotels

Please note that the city of Dresden will levy an accommodation tax (6% of the overnight price) for all overnight guests from July 1st, 2023.

Hyperion Hotel Dresden am Schloss (conference hotel)
Schloßstr. 16
01067 Dresden
Phone: +49 (0)351 501200

Single room	129,00 € (incl. breakfast)
Double room	149,00 € (incl. breakfast)

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

Single room	87.00 € (plus 18.00 € breakfast)
Double room	97.00 € (plus 18.00 € breakfast p.p.)

ORGANISATION

Organiser

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



Prof. Dr.-Ing. Gennadi Zikoridse, Executive Director
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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 21th 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.

Application deadline for exhibition 18.10.2024

Information on photographing

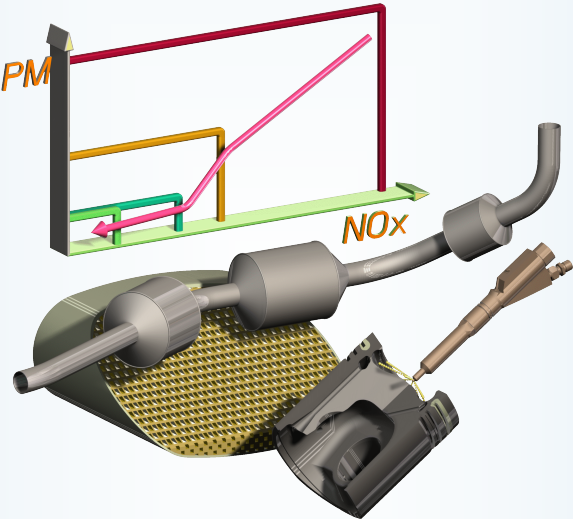
During the event we take pictures for the purpose of publication on the conference CD, in information leaflets of FAD e.V., in trade journals and on our website www.fad-diesel.de. By your participation in the conference you also consent to the publication of photos showing you. If you do not wish this, 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.

SCIENCE - RESEARCH - DEVELOPMENT - COOPERATION

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



21. FAD-Conference



„The Challenge -
Exhaust Aftertreatment“

INVITATION

ONLINE OR PRESENCE PARTICIPATION

6.11. - 7.11.2024 in Dresden

PREAMBLE


Dear Ladies and Gentlemen,

The European Union's ambitious climate protection target of reducing greenhouse gas emissions by 95% by 2050 compared to 1990 is the great challenge of the present. The central objective of the transport sector is derived from this to achieve CO₂-neutral mobility. The results so far make it clear that the goals set can only be achieved if all available raw materials and technologies that reduce CO₂ are used immediately. Not an option, not an idea must remain undiscussed. For example, H2 drives, hybrid drives, the use of alternative fuels in the existing fleet and in future combustion engines, and pure electric mobility will only be effective as a conglomerate.

The 21st FAD-Conference will take place in Dresden on November 2024. The selection of lectures reflects the extensive spectrum of the topic.

The accompanying exhibition is an informative addition to the lecture program. At the same time, it provides the framework for talking to other participants during the breaks. We will open the exhibition on the evening before the 21st FAD-Conference as part of a get-together. Here, participants can have initial discussions in a relaxed atmosphere and get to know the speakers.

We would like to invite you to the 21st FAD-Conference on November 6th/7th, 2024 in Dresden. Experts from industry, science and research will meet here to find out more at specialist lectures, discuss possible solutions and exchange ideas. Whether as a participant or exhibitor - we would be delighted to welcome you to Dresden in November.


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



PROGRAM

Wednesday, 6th November 2024

- 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: Exhaus aftertreatment for hydrogen engines - I
Chairman: Klaus Schrewe, HJS Emission Technology GmbH & Co. KG, D

- 09:30 **Small Displacement H2 Engines as carbon-neutral propulsion system in On- und Off-Highway Installations**
Thomas Körfer, Th. Durand, H. Busch, FEV GmbH, D
- 10:00 **Efficient development and testing method for H2-ICE exhaust aftertreatment systems**
Silas Bräuning, A. Resch, M. Werner, Dr. H. Többen, Purem GmbH, D

10:30 *Coffee break*

Session II: Exhaus aftertreatment for hydrogen engines - II
Chairman: Klaus Schrewe, HJS Emission Technology GmbH & Co. KG, D

- 11:00 **Low / No carbon fuels - impact on emissions of HD engines**
Thorben Philipp, Liebherr Machines Bulle SA, CH
- 11:30 **Development of Heavy Duty Hydrogen ICE for Zero CO2 emissions**
Krishnan Sadagopan, Ashok Leyland Ltd., IN
- 12:00 **Laboratory studies on the exhaust aftertreatment of hydrogen combustion engines**
Maximilian Bogner, HTW Dresden, D;
A. Teglas, F. Lindner, Dr. D. Rothe, MAN Truck & Bus SE, D

12:30 *Lunch*

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

- 13:30 **Removal of formaldehyde, carbon monoxide and methane from lean gas engine exhaust using novel iron and manganese based oxidation catalysts**
Kalle Weidauer, Prof. Dr. S. Kureti, TU Bergakademie Freiberg, D
- 14:00 **Heating Strategies and Catalyst Temperature Control in a Hybridized Powertrain with monovalent CNG Engine**
Patrick Noone, Prof. Dr. Ch. Beidl, TU Darmstadt/ vkm, D

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- 14:30 **Precious metal-free catalyst for the reduction of methane slip in large engines: Activity and challenges in regard to stability**
Manuel Materna, Dr.-Ing. F. Koschany, MAN Energy Solutions SE, D
Dr. J. Spengler, Interkat GmbH, D;
Prof. Dr. K.-O. Hinrichsen TU München, D

15:00 *Coffee break*

Session IV: Solutions for future emission legislation
Chairman: Dr.-Ing. G. Hühwohl, Albonair GmbH, D

- 15:30 **On the road to Euro 7 – important milestones**
Helge Schmidt, TÜV NORD Mobilität GmbH & Co. KG/IFM, D
- 16:00 **The new 'IRLAM' technology and its contribution to PEMS measurement**
Ririko Wada, HORIBA FuelCon GmbH, D
- 16:30 **Polarstern II – an example of sustainable solutions for shipping**
Detlef Wilde, Alfred Wegener Institut, D
- 19:00 *Social evening*

Thursday, 7th November 2024

Session V: New fuels for future mobility
Chairman: Sebastian Heinecke, DEUTZ AG, D

- 9:00 **ReFuels! Important building block of current and future mobility**
Prof. Dr. Th. Garbe, Dr. K. Michels, M. Schüttenhelm, Volkswagen AG, D
- 9:30 **Blending concepts for an EN 590 diesel fuel with high renewable content**
Sebastian Dörr, Jaeger & Dörr GbR, D
- 10:00 **Performance and emissions of paraffinic fuels in a diesel engine**
Dr. J. Karl, B. Häfele, Shell Global Solutions (Deutschland) GmbH, D
S. Zhongcheng, M. Cuijpers, N. Maes, L.M.T. Somers, Eindhoven University of Technology, B

10:30 *Coffe break*

Session VI: New technologies for future fuels
Chairman: Sebastian Heinecke, DEUTZ AG, D

- 11:00 **Flue gas cleaning in industry and marine in terms of alternative fuels and energy sources**
Dr.-Ing. Th. Ritter, H+H Engineering & Service GmbH, D

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- 11:30 **CO2-optimized thermal management of exhaust systems of combustion engines**
Oswald Holz, Dr. M Presti, Emitec Technologies GmbH, D
in Kooperation mit BIN Boysen Innovationszentrum Nagold GmbH & Co. KG, D

- 12:00 **A Pre-Turbo Exhaust Gas Aftertreatment System for efficient Diesel-Hybrid Powertrains**
Luis Fiore, M. Conin, Prof. Dr. Ch. Beidl, TU Darmstadt/ vkm, D;
D. Knaf, BIN Boysen Innovationszentrum Nagold GmbH & Co. KG,
J. Kreuz, Umicore AG & Co. KG, D

12:30 *Lunch*

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

- 13:30 **Municipal low-emission vehicles in inner-city traffic**
Dr.-Ing. G. Hühwohl, A. Müller, R. Thannimmotil, F. Feldhaus, Albonair GmbH, D
- 14:00 **Inference summary of optimized Emissions Aftertreatment System demonstrator, enabling ultra-low NOx Tier 5 targets by a technology balance and system approach**
Naveen Sridharan, M. Pietrzyk, B. Follon, F. Silva, Donaldson Europe BV, B

- 14:30 **Electrically Heated Mixer for Rapid Heat-up in Cold-Start, AdBlue™ Injection in Low Exhaust Temperatures, Low-Load Cycles Management and Ultra-Low NOx Emission**
Dr. M. Masoudi, Emissol LLC, USA

15:00 *Coffee break*

Session VIII: Alternative Technologies
Chairman: Prof. Dr. T. Garbe, Volkswagen AG, D

- 15:30 **“Forgotten emissions” – a well-to-tank view of future mobility**
Prof. Dr.-Ing. U. Gärtner, HTW Dresden, D
- 16:00 **Sustainable Fuel Components from Fischer-Tropsch-Naphtha**
Dr. Ch. Zschiesche, Prof. Dr. S. Kureti, TU Bergakademie Freiberg, D;
Dr. H. Krämer, A. Ph. Siemens, Audi AG, D
- 16:30 **Summary and conclusion**
Prof. Dr.-Ing. G. Zikoridse, FAD e.V./ HTW Dresden, D