

BRIEF

Particle filters are now widely used in various light- and heavy-duty-engine applications. They virtually eliminate the particle problem, but efficiencies of current deNOx technologies are not yet, where they have to be. The 7th VERT forum addresses these issues and reports on the latest trends in soot and NOx abatement.

MOTIVATION

The NOx problem, or more specific, the consistently high NO and NO₂ emissions of diesel vehicles, is not yet solved. The gap between real world NOx emissions and those achieved under ideal conditions during vehicle homologation is unacceptably large.

While particle filters made substantial progress in the last years, the achievements in diesel deNOx-technologies are moderate only. The performance at low engine loads e.g. in urban traffic, where low exhaust temperatures prevail or at cold-start conditions, is low as well and has to be improved.

The implementation of the VERT standard, which is now considered as a label for high quality filters, was an important step, in particle abatement. It encouraged filter manufacturers to do better and guided a development towards highly efficient filters with lesser side reactions.

In other words, the particle problem can be solved e.g. with VERT approved filters, but the NOx-problem still remains on our agenda. Both issues are strongly connected with a future use of the diesel technology. Both issues have to be settled to safely operate diesel engines in our cities which currently suffer from too high NO₂ and particle burdens.

The VERT forum address these issues and hopefully, is one's more, an excellent occasion to learn more on latest trends in filter- and deNOx-technologies and their real-world performance.

PARTICIPANTS

Cordially invited are representatives of the involved industry, government, current and future members of the VERT association and those, curious to learn more on latest developments of filter- and deNOx-technologies.

GENERAL INFORMATION

No conference fee will be charged.

Please refer to the Empa VERT Forum to obtain reduced accommodation rates in certain local hotels. (see <http://www.empa.ch/hotels>)

Registration

By e-mail via VERT Association: ttm.a.mayer@bluewin.ch

Further Information

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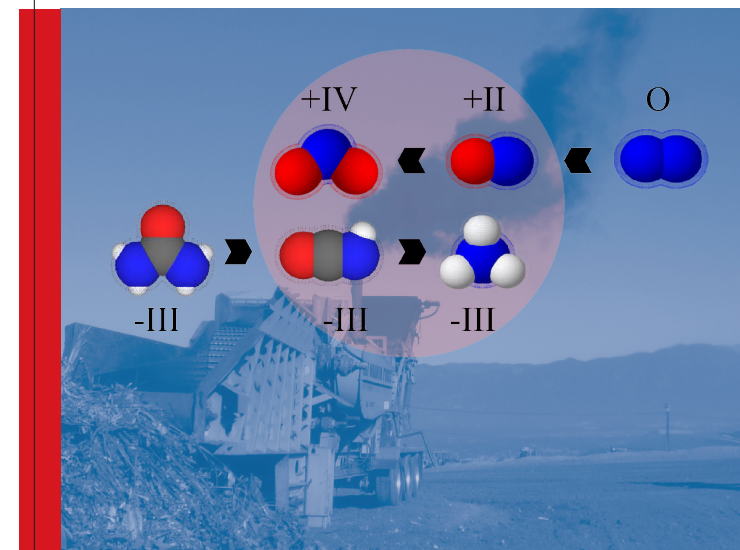
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7th VERT FORUM

Filter and deNOx-technologies

Efficient for both, diesel and gasoline direct injection vehicles



Empa, Dübendorf, Überlandstrasse 129
Friday, March 18, 2016, from 9:00 to 17:00

Registration by e-mail: ttm.a.mayer@bluewin.ch

PROGRAM

- 9:00 **Welcome**
D. Bleiner, Empa
- 9:05 **Welcome**
L.C. Larsen, VERT
- 9:10 **Introduction of new VERT members**
V. Hensel, VERT
- KEY ADDRESSES**
- 9:15 **Environmental ethics and the VERT commitment**
M. Ott, VERT
- 9:30 **Can the diesel solve its emission problem in time?**
N. Heeb, Empa
- RESEARCH NEWS**
- 9:45 **GASOMEPE: Particle emission of petrol engines with and without GPF**
J. Czerwinski, UASB
- 10:00 **Adverse health effects of diesel and petrol in human cell cultures**
C. Bisig, AMI, University of Fribourg
- 10:15 **Assessment of the genotoxic potential of GDI-vehicles with different GPFs**
M. Munoz, Empa
- 10:30 **Coffee Break**
- 11:00 **Real world emissions – Methodology and results**
R. Mathies, TÜV Süd
- 11:15 **Wirkung der Umweltzone Leipzig auf die stassennahe Luftqualität**
G. Löschau, SMUL Dresden

TECHNOLOGY NEWS

- 11:30 **New concept for the periodic control of all diesels with DPF + DOC + SCR**
A. Mayer, TTM
- 11:45 **Inspection & maintenance, the policy**
T. Lutz, ETH
- 12:00 **400 vehicles tested following the new concept in Santiago de Chile**
A. Reinoso, GEOSUR
- 12:15 **Fast functionality check for DOC and SCR**
J. Czerwinski, AFHB
- 12:30 **Lunch and Coffee**
- 13:15 **The fleet monitor concept and new statistic evaluation methods**
F. Legerer, VERT
- 13:30 **Next generation PN instruments for quality control of DPF kerbside**
L. Cachón, TESTO
- 13:45 **Filter concepts for coal mines, progress in Australia**
M. Müller, FREUDENBERG
- NEW VERT RETROFIT PROJECTS AND EMERGING MARKETS**
- 14:00 **DPF-retrofit and DPF first fit for all new diesel vehicles in Iran**
H. Izanloo, ASA
- 14:15 **DPF-retrofit projects and policies in Latin America**
R. Grossmann, TERRACONSULT

- 14:30 **DPF-retrofit projects and policies in China**
A. Mayer, TTM
- 14:45 **DPF-retrofit in Israel – first results of the pilot test**
L. Tartakovski, TECHNION HAIFA
- 15:00 **Coffee Break**
- 15:30 **DPF-retrofit for construction in Berlin and other German cities**
V. Schlickum, SENAT BERLIN
- LEGISLATION AND QUALITY ASPECTS**
- 15:45 **PN-based periodic control for construction machinery in Switzerland**
G. D'Urbano, FOEN
- 16:00 **Status EU-NRMM-AK and VERT contributions**
F. Greil, AK Wien
- 16:15 **Occupational health constraints of construction machines in indoor operations**
Th. Kaltwasser
- 16:30 **VERT guides and supports BAT emission legislation worldwide**
V. Hensel, VERT
- 16:45 **VERT Road Map 2016**
V. Hensel, VERT
- 17:00 **Closing Remarks**
L.C. Larsen, VERT