Empa Dübendorf

Laboratory for Advanced Analytical Technologies

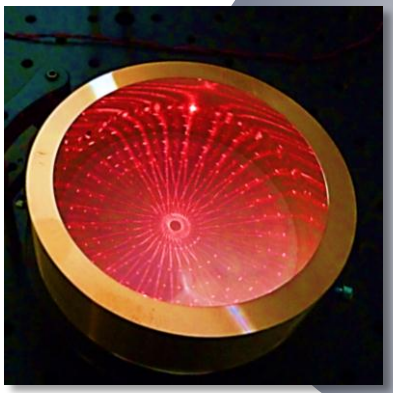
You are here

Empa's Research Focus Areas (RFA)

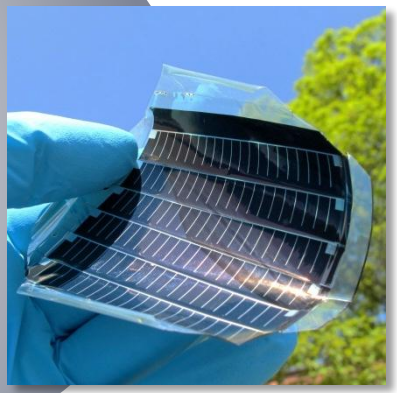
EMPA
Materials Science & Technology

Health &
Performance

Nanostructured
Materials



Natural Resources
& Pollutants



Energy

Sustainable Built
Environment

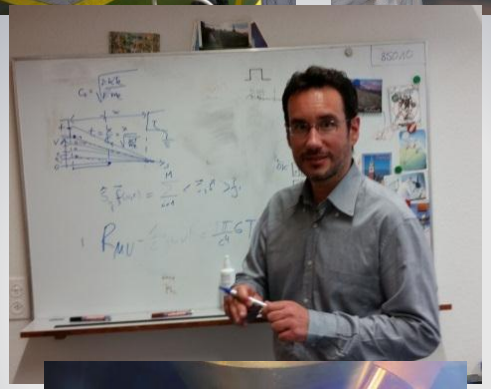
«NAREP»

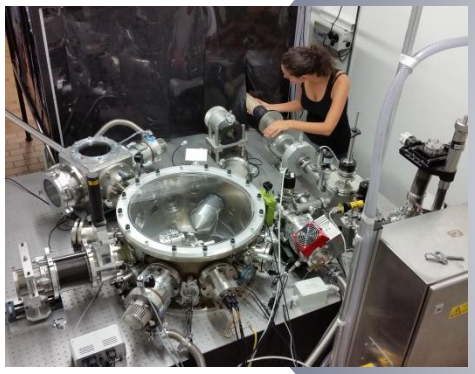
Laboratory for Advanced Analytical Technologies

EMPA
Materials Science & Technology

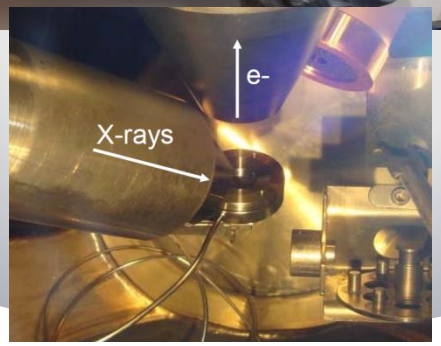
Air & Particle Analysis
(Prof. Wang)

Instrumental
Chemical Analysis
(Prof. Bleiner)





Optical Microanalysis
(Dr. Cirelli)



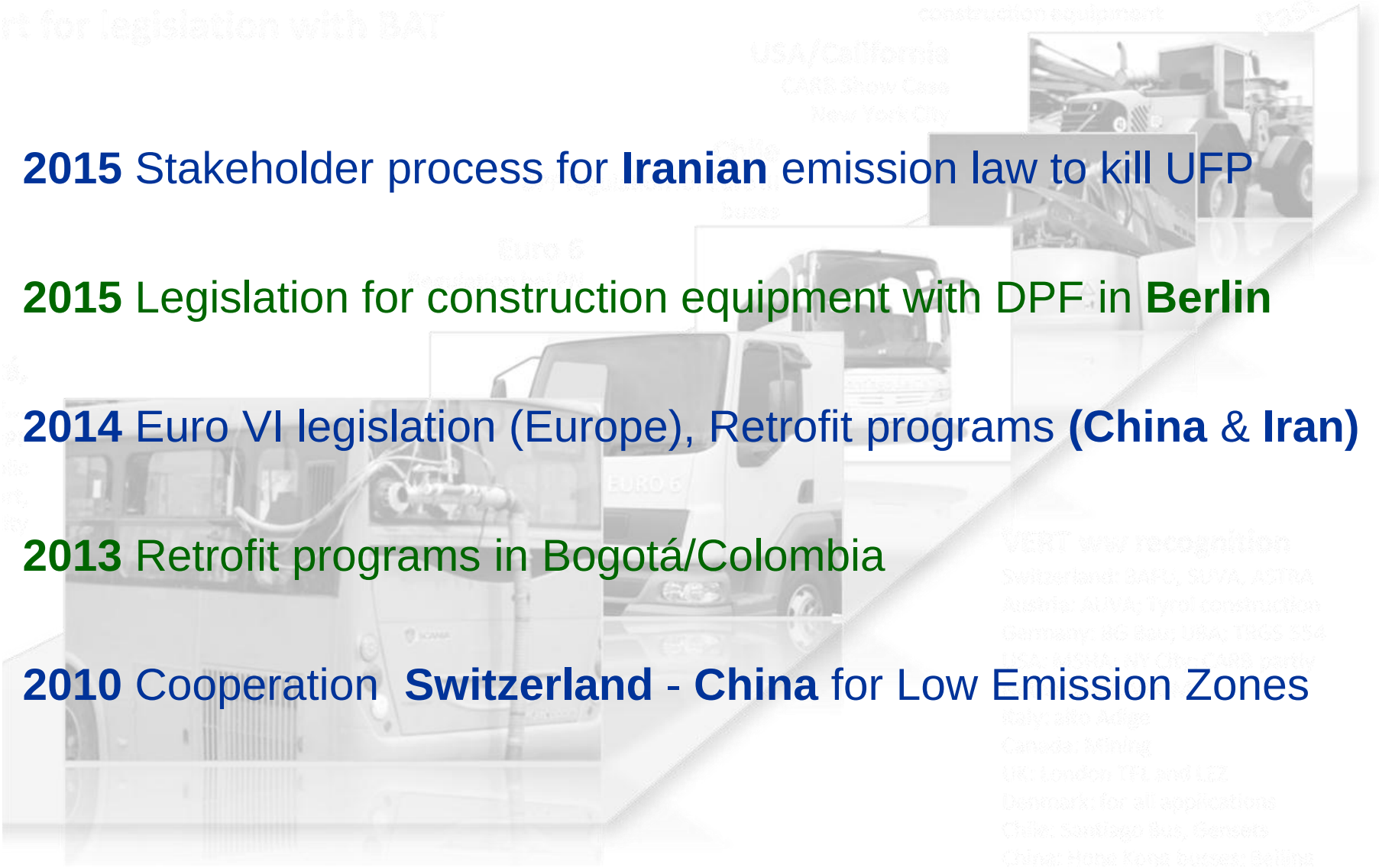
Ultrafast Spectroscopy
(PD Borgschulte)

Environmental Mass
Spectrometry
(Dr. Heeb)

What VERT® stands for

- Promotion of Best Available Technology for emission control
- Minimization of health burden caused by combustion engine emissions
- Recommendation to the application of particle number measurement
- Highest quality standards for emission control technology
- Traffic pollution reduction programs all over the world

VERT Last Five Years
(Source: http://vert-certification.eu/j3/)



2015 Stakeholder process for **Iranian** emission law to kill UFP

2015 Legislation for construction equipment with DPF in **Berlin**

2014 Euro VI legislation (Europe), Retrofit programs **(China** & **Iran)**

2013 Retrofit programs in Bogotá/Colombia

2010 Cooperation **Switzerland** - **China** for Low Emission Zones

5th VERT Forum – 21.3.2014

Evolution of Diesel Particle Filter & deNOx Technologies

BRIEF

Catalysts are key components of particle filters and $deNO_x$ technologies affecting the overall toxicity of exhaust gases of current and future vehicles and machinery. The VERT forum is a good opportunity to learn more on the latest developments of filter and $deNO_x$ systems and their worldwide applications.

6th VERT Forum – 20.3.2014

Particle Filter Technologies

BRIEF

Catalyzed particle filters are now standard in Euro-6 diesel vehicles. They are widely used to retrofit older engines, both for on- and off-road applications, but not yet for particle emitting GDI vehicles. The 6th VERT forum will present latest trends in filter developments and their applications in many fleets worldwide.

7th VERT Forum – 18.3.2014

Filter & deNOx Technologies

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.

GDCh

Gesellschaft Deutscher Chemiker

Wissenschaftlicher
Pressedienst Chemie

58/15
10. Dezember 2015

PRESSE-
INFORMATION

GDCh-Öffentlichkeitsarbeit
Postfach 90 04 40
D-60444 Frankfurt am Main
Tel.: 069/7917-493
Fax: 069/7917-1493
E-Mail: pr@gdch.de

Stickoxide: Ist der Diesel noch zu retten?

Experten diskutieren am 14. Januar 2016 in Frankfurt

Stickstoffdioxid (NO_2) entwickelt sich zum Schadstoff Nummer eins im innerstädtischen Bereich, noch vor den Feinstäuben. Epidemiologische Studien belegen, dass langfristige NO_2-Exposition zu verringerter Lungenfunktion führen kann und das Risiko von schwerwiegenden Atemwegserkrankungen erhöht. Kraftfahrzeuge mit Diesel-Motoren sind die Hauptverursacher von NO_x-Emissionen (NO_x=NO+NO_2). Der Gemeinschaftsausschuss „Chemie, Luftqualität und Klima“ (GA CLK) möchte sich mit seiner Expertise in die öffentliche Diskussion einbringen. Am 14. Januar 2016 lädt er zum Sonderkolloquium „Stickoxide: Ist der Diesel noch zu retten?“ ins DECHEMA-Haus in Frankfurt am Main ein.

EMPA
Materials Science & Technology

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 **GASOMEP: Particle emission of petrol engines with and without GPF**
J. Czerwinski, UASB

10:00 **Adverse health effects of diesel and petrol engine exhausts in human cell cultures**
C. Bisig, AMI, University of Fribourg

10:15 **Assessment of the genotoxic potential of GDI-vehicles with different GPFs**
M. Muñoz, 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 DOC+DPF+SCR**
A. Mayer, TTM

11:45 **Fast functionality check for DOC and SCR**
J. Czerwinski, AFHB

12:00 **Next generation PN instruments for quality control of DPF kerbside**
L. Cachón, TESTO

12:15 **400 vehicles tested following the new concept in Santiago de Chile**
A. Reinoso, GEOSUR

12:30 **Lunch and Coffee**

13:15 **The fleet monitor concept and new statistic evaluation methods**
F. Legerer, VERT

13:30 **Inspection & maintenance, the policy**
T. Lutz, ETH

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

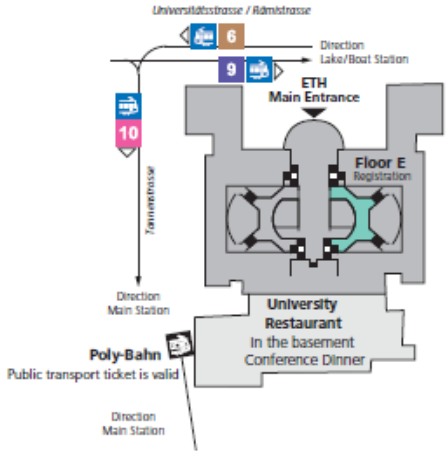
17:00 **Closing Remarks**
L.C. Larsen, VERT

EMPA
Materials Science & Technology

Conference Location

The conference is held at the
Swiss Federal Institute of Technology Zurich (ETHZ)
Main Building
Rämistrasse 101, CH-8092 Zürich
Phone: +41 44 632 11 11
www.ethz.ch

situated above Zurich's old town. It is accessible by tram lines 6, 9 and 10 or, as an adventurous alternative, by the Polybahn (see maps below).



Registration and Conference Fee

Online registration is required under
www.nanoparticles.ethz.ch where the abstract form and the exhibitor application form can be downloaded. No participation fee will be charged. This is possible only thanks to the generous financial support of our sponsors.

For questions related to the online registration please contact
Anita Anselmi
Phone: +41 44 268 20 71
anita.anselmi@lunge-zuerich.ch

LUNGE ZÜRICH
Hilft. Informiert. Wirkt.

Travel information and Accommodations

Online hotel reservation is possible via the Conference homepage **www.nanoparticles.ethz.ch**.

Or contact
Zurich Tourism
Post Box
CH-8023 Zürich
Phone: +41 44 215 40 40
www.zuerich.com
hotel@zuerich.com

General information is also available on CH Tourism,
www.myswitzerland.com

Further Information

Dr. Andreas Mayer, TTM
ttm.a.mayer@bluewin.ch
Phone: +41 56 496 64 14

Invitation and call for papers to the

20th ETH-Conference on Combustion Generated Nanoparticles

Focus Event: Particle Filter Quality under Real World Conditions

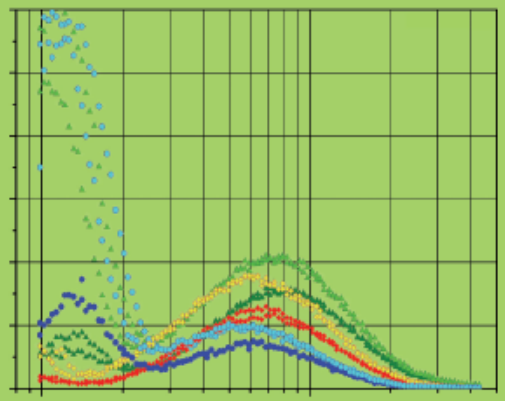


Photo courtesy of N. Heeb

June 13th – 16th, 2016
ETH Zurich, Switzerland
www.nanoparticles.ethz.ch

EMPA

Materials Science & Technology

Have a stimulating VERT-Forum