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| Session 3: Particles in Ambient Air | |
| Chairman: E. Weingartner | 14.20 – 16.20 |
| Kittelson D. / University of Minnesota <i>Recent on-road ultrafine and nanoparticle measurements</i> | |
| Fruin S. / CARB <i>In-Vehicle Exposure Research in California</i> | |
| Sioutas C. / University of Southern California, Los Angeles, USA <i>Trends in Size-Fractionated Particle Number and Mass Emission Factors from Light and Heavy Duty Vehicles in California and Health Implications</i> | |
| Prévôt A.S.H. / PSI, Switzerland <i>Aerosols from Wood Combustion versus Traffic in an Alpine Valley</i> | |
| Kägi R. / EMPA, Switzerland <i>Ultrafine Particle Concentration at a Tunnel Construction Site</i> | |
| Lohmann U. / ETH, Switzerland <i>Importance of Anthropogenic Soot Aerosols for Clouds and Climate</i> | |

POSTER SESSION

and COFFEE BREAK

16.20 – 17.40

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| Session 4: Non-Diesel Nanoparticle Emissions | |
| Chairman: C.-D. Schegk | 17.40 – 19.20 |
| Arnold F. / MPI Heidelberg, Germany <i>Combustion Derived Atmospheric Aerosol Precursors: Trace Gases and Cluster Ions</i> | |
| Hagen D. / University Missouri, USA <i>PM Emissions from a Commercial Jet Engine – Project APEX</i> | |
| Czerwinski J. / AFHB, Switzerland <i>Research on Sampling for Particle Analysis of 2-Stroke-Scooters</i> | |
| Astorga C. / JRC, Italy <i>Emissions of Particle-bound PAH of 2-S-Scooters with different combinations of Oil/Fuel/engine Technology</i> | |
| Graham L. / Environment Canada <i>The Transient Nature of Particle Emissions from Light Duty Hybrid Vehicles</i> | |

APER0 and invited DINNER

19.20

Tuesday 16. August 2005

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| Session 5a: Health Effects by Combustion Generated Particles | |
| Chairman: J. Lemaire | 08.30 – 10.10 |
| Pope A.C. / Brigham Young University, USA <i>Health Effects of Ambient Combustion-Related Fine and Ultra-fine Particulate Air Pollution: Recent Epidemiological Evidence</i> | |
| Geiser M. / University of Berne, Switzerland <i>Distribution and Clearance of Inhaled Ultra-Fine Titanium Dioxide Particles in Rat Lungs</i> | |
| Kelly F.J. / KCL, UK <i>Oxidative Stress: the Missing Link between PM Toxicology and Epidemiology ?</i> | |
| Morin, J.-P. / INSERM, Rouen, France <i>Pro-Oxidant Impacts of Diesel Engine Emissions according to Fuel and After-treatment Strategies: in Vitro and in Vivo Biological Evidences</i> | |
| Duschl, A. / University of Salzburg, Austria <i>Diesel Soot Exposure Modulates Functional Differentiation and Maturation of Bone Marrow-Derived Dendritic Cells</i> | |

COFFEE BREAK

10.10 - 10.30

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| Session 5b: Health Effects by Combustion Generated Particles | |
| Chairman: P.Gehr | 10.30 – 11.50 |
| Stoeger, T. / GSF, München, Germany <i>Instillations of Different Carbonaceous Nanoparticles Indicate a Surface Area Threshold Dose for Acute Inflammation in Mice</i> | |
| Rothen-Rutishauser, B. / University of Bern, Switzerland <i>Interaction of Nanoparticles with Cells of the Airway Tissue Barrier: a Study with Cell Culture Models</i> | |
| Oberdörster, G / University Rochester, USA <i>Extrapulmonary Effects of Inhaled Nanosized Particles</i> | |
| Peters, A. / GSF, München, Germany <i>Effects of Fine and Ultra-fine Particles on the Heart</i> | |

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| Panel Discussion on Health Effects of Combustion Generated Nanoparticles | |
| | 11.50 – 12.30 |
| Moderation: J.Lemaire | |

LUNCH

12.30 – 13.30

9th ETH Conference on Combustion Generated Nanoparticles

| Session 6: Particle Emissions of Diesel-Engines | |
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| Chairman: K. Boulouchos | 13.30 – 15.30 |
| Bugarski A. / NIOSH, USA <i>Effects of Alternative Fuels on Concentrations of Nanometer and Ultrafine Particles in Underground Mines</i> | |
| Hausberger S. / University of Technology Graz, Austria <i>Emission Behavior of Different City Bus Concepts</i> | |
| Lauer P. / MAN, Germany <i>Emission and Chemical Composition of PM from Medium Speed 4-Stroke Marine Diesel Engines for Different Fuels</i> | |
| Niemi S., Turku Polytechnic, Finland <i>Effect of Internal EGR on the Exhaust Particle Number and Size Distribution of an Off-Road Diesel Engine</i> | |
| Zabetta E., Abo Akademi, Finland <i>Effect of Seed Oils on the Morphology of Nanoparticles from Diesel Engines</i> | |
| Zahoransky R./ University Offenburg, Germany <i>Influence of Different Sun Fuels on Particle Emissions of Diesel Engines</i> | |

POSTER SESSION / COFFEE BREAK

15.30 – 16.00

| Session 7a: Particle Reduction by Aftertreatment (1) | |
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| Chairman: Th.W. Lutz | 16.00 – 17.20 |
| Konstandopoulos A.G. / CERTH/CPERI, Greece <i>The Microstructure of Soot Fractal Aggregate Deposits</i> | |
| Mohr M. / EMPA, Switzerland <i>Measurement of Post-Trap Emissions by a Particle Number Count Method Developed for Possible Future Type Approval Purpose</i> | |
| Johnson T. / Corning, USA <i>Impact of Advanced Diesel Combustion Modes on Diesel Particulate Filter Operation</i> | |
| Goto, Y. / NTSEL Japan <i>Particles Emission from a HD Diesel Vehicle with Urea SCR Catalyst</i> | |

COFFEE BREAK

17.20 – 17.40

| Session 7b: Particle Reduction by Aftertreatment (2) | |
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| Chairman: A. Mayer | 17.40 – 19.00 |
| Reinoso A.R. / MTT Chile <i>Retrofitting Program for Santiago Bus Fleet: Pilot Project Results</i> | |
| Kasper M. / Matter Engineering Switzerland <i>Efficiency of Aftertreatment Devices for the Transantiago Bus Retrofit Project</i> | |
| Khair Magdi / SWRI, San Antonio, USA <i>Characterization of Nanoparticles from a 2010-Type HD Engine</i> | |
| Zelenka, P. / Hyundai, Korea <i>Catalyzed Diesel Particulate Filter System (CPF) for EURO 4 – Experiences of Extended Fleet Test with 35 HMC/Kia Vehicles</i> | |

Wednesday 17 August 2005

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| Session 8a: Instrumentation, Calibration and Sampling (1) | |
| Chairman: O. Bischof | 08.30 – 10.30 |
| Sem G. / TSI St. Paul, USA <i>Early Engine Exhaust Particle Size Distribution Measurements</i> | |
| Zervas E. / Renault, France <i>Comparison of Particle Number Determination Using Several Analytical Techniques</i> | |
| Schmidt M. / Palas, Germany <i>Soot Generation for the Testing of Diesel Particulate Filters and Particle Control within the Nanometer Range</i> | |
| Baumgartner Th. / FH Aargau, Switzerland <i>Soot Production by Pyrolysis</i> | |
| Sakurai H. / AIST, Japan <i>Development of a Primary Calibration Standard for the Aerosol Particle Number Concentration Using the Aerosol Electrometer Method</i> | |
| Wei Qiang / Horiba, Ann Arbor, USA <i>Real-time Engine Exhaust Solid Particle Measurement with a Prototype Particle Counting System</i> | |

COFFEE BREAK

10.30 – 11.00

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| Session 8b: Instrumentation, Calibration and Sampling (2) | |
| Chairman: H. Burtscher | 11.00 - 13.00 |
| Niemelä V. / Dekati Finland <i>Real-Time Measurement of Diesel Trap PM Removal Efficiency</i> | |
| Sommer R. / University Erlangen, Germany <i>Real-Time Road Field Determination of Ultra Fine Particulate Matter</i> | |
| Fierz M. / FH Aargau, Switzerland <i>A Portable Diffusion Size Classifier</i> | |
| Yanagisawa N. / ISUZU Advanced Engineering Center, JCAP, Japan <i>Investigation of Measurement Conditions of Ultrafine Particles Emitted by Automobiles</i> | |
| Myojo T. / NIIH, Japan <i>A Nano-Size Particle Sampler Using a Differential Mobility Analyzer</i> | |
| Kawai T. / NTSEL Japan <i>Transient Measurement of Diesel Nanoparticles by a Newly Developed DDMA</i> | |

LUNCH

13.00

Closing Remarks by H. Burtscher

POSTERS

| Poster Location | Author | Affiliation | Subject |
|-----------------|-----------------------|-----------------------|---|
| 26 | Ayala A. | CARB | <i>Transient Ultrafine Particle Emission Measurements with a New Fast Particle Aerosol Sizer for a Trap-Equipped Diesel Truck</i> |
| 55 | Baltensperger U. | PSI | <i>Research on Combustion Generated Nanoparticles at PSI</i> |
| 9 | Böhler P. | InNet | <i>Mobile Application of CAST for Calibrating Aerosol-Monitors Relating to Mass- and Number-Concentration</i> |
| 54 | Boulouchos K. | ETHZ | <i>Research on Combustion Generated Nanoparticles at ETH</i> |
| 10 | Box S. | Cambridge University | <i>A New Fast Nanoparticle Spectrometer for Concentration, and Size Distribution Identification</i> |
| 44 | Bunge | UMTEC | <i>CNG versus Diesel</i> |
| 53 | Burtscher H. | ISS | <i>Research on Combustion Generated Nanoparticles at ISS</i> |
| 43 | Czerwinski J | AFHB | <i>Impact of RME on Nanoparticle Emission</i> |
| 52 | Czerwinski J. | AFHB | <i>Research on Combustion Generated Nanoparticles at AFHB</i> |
| 42 | Czerwinski J. | AFHB | <i>Influencing Nanoparticle Emissions of 2-Stroke Scooters by Oils and Fuels)</i> |
| 41 | Dreier Th. | PSI | <i>Modeling of time-resolved laser-induced incandescence (TIRE-LII) transients for particle sizing in high-pressure spray combustion environments</i> |
| 31 | Dereje Etissa-Debissa | EMPA | <i>Analytical Electromicroscopy Study of Individual Soot Particles of Various Origins</i> |
| 4 | Edetsberger M. | Uni Wien | <i>Time-dependent appearance of nanometer-sized particles in living cells</i> |
| 5 | Edetsberger M. | Uni Wien | <i>Influence of size and surface properties of particles on translocation into cells and on cellular behaviour</i> |
| 1 | Gachet M.S. | EMPA | <i>Daily benzo[a]pyrene levels in the PM10 fraction in an urban site in Switzerland</i> |
| 51 | Gaegauf Ch. | Ökozentrum | <i>Measures in the Wood Combustion Process for Particle Emission Control</i> |
| 11 | Hauser G. | Dresden University | <i>Impedance smoke particulate sensor</i> |
| 6 | Heiden B. | TU Graz | <i>Physical causes of fine dust and its effects on human lungs</i> |
| 12 | Heim M. | Universität Karlsruhe | <i>Influence of asymmetric Flow Effects in Vienna-type Differential Mobility Analyzers</i> |
| 2 | Imhof D. | PSI | <i>Aerosol and NOx emission factors in two road tunnels with different traffic regimes</i> |

9th ETH Conference on Combustion Generated Nanoparticles

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| 7 | Johnson T. | TSI | <i>A Novel Instrument for Measuring Surface Area of Exhaust Particles Deposited in Different Regions of the Lung</i> |
| 40 | Kanjarkar Santosh rao | DLR | <i>Investigation of nano-soot particle oxidation in a flow reactor</i> |
| 32 | Karg E. | GSF | <i>Thermogravimetric Analysis of Ambient and Surrogate Carbonaceous Particles</i> |
| 13 | Kasper M. | ME | <i>PMP Golden Instrument – Evaluation of the Volatile Particle Remover</i> |
| 39 | Khalek I.A. | SWRI | <i>Nanoparticle Emissions from Old and New Gasoline Vehicles</i> |
| 29 | Kim Deok-Jin | Katech | <i>2-D In-cylinder Diesel soot Temperature Measurement Using Two-Color Ratio Pyrometry</i> |
| 14 | Kingsley R. | CAMBUSTION | <i>Correlation of Particle Mass Measurements with Electrical Mobility Classified Spectra</i> |
| 8 | Klippel N. | Verenum | <i>Health Effects of Particles from Diesel Engines and Wood Combustion</i> |
| 45 | Konstandopoulos A.G. | CERT / CPERI | <i>Ash Effects on Catalyzed Diesel Particulate Filter Performance</i> |
| 15 | Konstandopoulos A.G. | CERT / CPERI | <i>Design and Evaluation of a Selective Particle Size Sampler (SPS)</i> |
| 16 | Lappi M. | VTT | <i>Phenomena in Sampling Diesel Particles with Full Flow and Partial Flow Dilution Systems</i> |
| 27 | Larsen B.R. | JRC | <i>Effect of Water/Fuel Emulsions and a Cerium Based Combustion Improver Additive on HD and LD Diesel Exhaust Emissions</i> |
| 30 | Lee Chun-Beom | Katech | <i>The Quantitative Measurement of In-cylinder Diesel Soot</i> |
| 46 | Legerer F. | AKPF | <i>Update on Nanoparticle Filtration</i> |
| 17 | Legerer F. | AKPF | <i>An Engineering Estimate to Correlate Number Count and PM Criteria</i> |
| 35 | Mayer A. | TTM | <i>Fine Dust and Nanoparticles</i> |
| 28 | Meyer N.K. | Uni Brisbane | <i>Analysis of the Volatile and Hygroscopic Properties of Diesel Exhaust using the VH-TDMA</i> |
| 50 | Mohr M. | EMPA | <i>Research on Combustion Generated Nanoparticles at EMPA</i> |
| 18 | Olfert J. | University of Cambridge | <i>Measuring Particle Mass & Preliminary Results of the Couette Centrifugal Particle Mass Analyzer</i> |
| 34 | Onchang R. | TU Graz | <i>Investigation of Exhaust PM₁₀ Distribution in a Residential Area in the City of Graz, Austria</i> |
| 38 | Sasaki S. | JARI | <i>Potential of Nanoparticle Formation with Vehicles</i> |
| 19 | Schlatter J. | METAS | <i>Influence of Ambient Pressure on Combustion Aerosol Standard (CAST)</i> |
| 20 | Schlatter J. | METAS | <i>Memory Effect of Particles in the SMPS</i> |
| 49 | Schlatter J. | METAS | <i>Research on Nanoparticles at METAS</i> |
| 3 | Schmidhauser | PSI | <i>Biomass burning – an important source for aerosol particles in Alpine valleys</i> |

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| 33 | Schröter M. | LTTT | <i>Investigating Nanoparticle Processes and Optical Properties from Particle Size Distribution Measurements</i> |
| 47 | Tikhomirov K. | PSI | <i>MnOx-CeO2 for the Low-Temperature Oxidation of Diesel Soot</i> |
| 48 | Tikhomirov K. | PSI | <i>Investigation of Soot Deposition in Diesel Particle Filters by means of Non-destructive Neutron Radiography</i> |
| 21 | Tikkanen J. | DEKATI | <i>Significance of Sampling Technique and Measurement Method in improving Exhaust Particle Measurement Accuracy</i> |
| 22 | Uhrner U. | Institute for Tropospheric Research Leipzig | <i>Dilution and Aerosol Dynamics in a Diesel Car Exhaust Plume - Measurements and Simulations of On-road Conditions</i> |
| 37 | Wahl C. | DLR | <i>Soot Formation and Identification of Soot Precursors in a Fuel Rich Ethylene Flame</i> |
| 36 | Wichser A. | EMPA | <i>Influence of Different Lubrication Oils on Particle Formation and Emission</i> |
| 23 | Zervas E. | Renault | <i>Interlaboratory Measurement of Exhaust Particle Number Using CPC</i> |