Plenary Talk 10:30 - 11:30
New developments in the field of filtering dust separation techniques
Prof. Dr. Wilhelm Höflinger, Vienna Technical University - Institute of Chemical Engineering, Austria

Survey Lecture 13:15 - 14:30
International standardization in the field of filtration and separation
Prof. Dr. Chikao Kanaoka, Ishikawa National College of Technology, Japan
Dr. Hisao Makino, Central Research Institute of Electric Power Industry, Japan
Takeshi Yoneda, Yoneda Professional Engineer Office, Japan

L1 Filter Media - New Developments I 13:15 - 14:30
Filter belts for vacuum belt filters - trends and new developments, C. Maurer*, SEFAR AG, Switzerland

Innovative low pressure plasma coatings for gas and liquid filter media, F. Legein*, Europlasma N.V., Belgium

Clean and easy union of filter materials by using ultrasonic, F. Weber, M. Pasternak*, Herrmann Ultraschalltechnik GmbH & Co. KG, Germany

L2 Centrifugal Sedimentation Technology I 13:15 - 14:30
Using numerical flow and particle simulation to predict the separation performance of a centrifuge, X. Romani Fernández*; H. Nirschl, Karlsruhe Institute of Technology (KIT), Germany

Effect of critical process parameters on the operation of a decanter centrifuge, T. Kinnaninen*, M. Louhi-Kultanen, A. Häkkinen, Lappeenranta University of Technology, Finland; E. Meshcheryakov, Saint Petersburg State Technological University of Plant Polymers, Russia

Selective separation of magnetic particles by magnetic field enhanced centrifugation, J. Lindner*, K. Wagner, H. Nirschl, Karlsruhe Institute of Technology (KIT), Germany

G1 Measurement Techniques 13:15 - 14:30
Large drop re-entrainment from an oil-mist filter, D. Kampa*, J. Meyer, G. Kasper, Karlsruhe Institute of Technology (KIT), Germany; B. Mullins, Curtin University of Technology, Australia

Monitoring and control of particulate matter emitted by biomass burning using scrubber venturi, M.A. Martins Costa*, F.A. Filho, S.P. Morais, B.A. Lima, R.A.D. Ribeiro, University Estadual Paulista - UNESP; N.A. G. Puentes, University São Carlos - UFSCAR, Brazil

Portable instrument for real time monitoring of airborne dust and nanoparticles, H. Grimm*, M. Pesch, F. Schneider, Grimm Aerosol Technik GmbH & Co KG, Germany

Survey Lecture 15:00 - 16:15
Membrane processes for the treatment of water and wastewater,
Dr. Thomas Peters, Consulting for Membrane Technology, Germany

L3 Filter Media – New Developments II 15:00 - 16:15
Monolithic melt blown process and applications, R.A. Steele*, Oerlikon Neumag, Germany

Development of innovative fiber materials for technical applications – fine polyvinylidene-fluoride filaments and fabrics, S. Walter, W. Steinmann*, G. Seide, T. Gries, G. Roth, RWTH Aachen University, Germany
New lube & fuel media technology increases element lifetime, D. Guimond*, T. Lawson, I-153
G. Jeide, P. Wijns, Hollingsworth & Vose, Germany

**L4 Centrifugal Sedimentation Technology**
15:00-16:15

Vökel, N. Chang, B. Hsieh, K. Melde, PARC Palo Alto Research Center, Inc., USA

Spiral plate technology with soft discharge system, H.A. Boele*, Evodos B.V., Netherlands I-168

Particles trajectories in a hydrocyclone measured by PEPT, Y.F. Chang*, C.G. Ilea, ØL. I-173
Aasen, A.C. Hoffmann, University of Bergen, Norway

**G2 Filter Test Systems I**
15:00-16:15

Data analysis of agglomerate filtration measurements for polydisperse diesel challenging aerosol, J. Wang*, ETH Zurich University, Switzerland; D.Y.H. Pui, University of Minnesota, USA; S. Haep, H. Fissan, Institute for Energy and Environmental Technology (IUTA), Germany

Influence of the dust on the filter efficiency and emissions of cleanable filter media, M. Schmidt*, Palas® GmbH, Germany

Effects of post-coating by generating a thin secondary particle layer on surface filtration, Q. Zhang*, E. Schmidt, University of Wuppertal, Germany

**S3 Survey Lecture**
16:45-18:00

Particle (size) characterization
Prof. Dr. Bernd Sachweh, BASF SE, Germany

**L5 Filter Media - Modelling, Simulation, Design**
16:45-18:00

CFD simulations for better filter element design, O. Iliev*, Z. Lakdawala, R. Kirsch, K. Steiner, I-181
E. Toroshchin, Fraunhofer ITWM; M. Dedering*, IBS Filtran, Germany; V. Starikovicius, Vilnius Gediminas Technical University, Lithuania

Applications of simulation processes in filter media, P. Jungbecker, T. Klietzing, H. Krieger, I-189
G. Seide*, T. Gries, RWTH Aachen University, Germany

Structure and pressure drop of real and virtual metal wire meshes, E. Glatt, S. Rief, A. Wiegmann, Fraunhofer Institute for Industrial Mathematics ITWM; M. Knefel*, E. Wegenke, GKD - Gebr. Kufferath AG, Germany

**L6 Mechanical Liquid-Liquid Separation**
16:45-18:00

Analysis of impact parameters on the water/diesel separation process with filter elements, S. Schütz*, D. Winkler, K. Kissling, University of Stuttgart; P. Trautmann, J. Reyinger, M. Veit, K. Brodesser, U. Staudacher, MANN+HUMMEL GmbH, Germany

Nanocoated filter media for oil-in-water emulsion separation, S. Bansal*, V. von Arnim, I-211
T. Stegmaier, H. Planck, Institute for Textile Technology and Processing Engineering Denkendorf (ITV), Germany

Laboratory scale evaluation of inclined creaming, T. Sobisch*, D. Lerche, LUM GmbH, I-219
Germany

**G3 Filter Test Systems II**
16:45-18:00

New device for In situ testing of filter media in pulse jet filter plants concept - Details and experimental results, F. Popovici, G. Gasparin*, Evonik Fibres, Austria

Test procedure to determine fine dust emissions of dust reduced street sweepers, D. Renschen*, J. Schambegg, E. Andrae, D. Glätzer, DMT GmbH & Co. KG; B. Schröer, AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Germany
Novel test rig for adsorption of toxic substances, H. Finger*, G. Lauber, W. Möltzer-Siemens, S. Haep, Institute for Energy and Environmental Technology (IUTA); D. Bathen, University Duisburg-Essen, Germany

Wednesday, March 23, 2011

L7 Filter Media – Characterization and Porometry 08:30 - 09:45

In situ cake formation and pore structure characterization of filtration media, A. Jena, I-226
K. Gupta*, Porous Materials, Inc., USA

Measuring the maximum pore size of small profile filter elements, G.R. Rideal*, J. I-234
Storey, A. Stewart, Whitehouse Scientific Ltd, UK

How to reduce filtration costs of complex hydraulic systems, C. Peuchot*, IFTS Institute I-242
of Filtration and Techniques of Separation, France

L8 Poster Session I 08:30 - 09:45

FILTER MEDIA - NEW DEVELOPMENTS

Next generation filter media containing electrospun nanofibers - pathway for improved filtration properties, J. Macak*, P. Popp, M. Vanicek, Elmarco Ltd., Czech Republic

CENTRIFUGAL SEDIMENTATION TECHNOLOGY


CAKE FILTRATION TECHNOLOGY

Novel BASP biotech filtration system for commercial scale “High density microbial fermentation biomass” - commercial scale, H. Katinger, University of Natural Resources and Applied Life Sciences, Austria; B. Patil*, V. Patil, BASP Industries, India

WISY filter for separation of solids from water - Presentation of a new and unique filter system, J. Maurer*, WISY AG, Germany

SEPARATION ENHANCEMENT BY CHEMICAL ADDITIVES

Compaction of multiwalled carbon nanotubes at high centrifugal acceleration and in the presence of a surfactant, N. Lebovka, M. Loginov, E. Vorobiev*, University of Compiègne, France

SORTING OF DIFFERENT MATERIALS

Simulation of a liquid fluidized bed classifier for polydisperse suspensions of equal-density solid particles: design and operation strategies, A.I. Garcia Alvear*, Universidad Católica del Norte; G. Lopez, Sierra Miranda S.C.M., Chile

A technical interpretation of three-phase system diagrams for KCl separation from carnallite using MATLAB software, E.R. Borujeny*, S.N. Khorasani, F.T. Esfahani, Isfahan University of Technology, Iran

WASHING AND EXTRACTION

Effective separation of cadmium and iron from phosphoric acid by solvent extraction with trioctylamine, M.H.H. Mahmoud*1,2, M.M. Al-Qahtani 2, 1 CMRDI Central Metallurgical R&D Institute, Helwan, Cairo, Egypt; 2 Chem. Dept. College of Science, Taif University, KSA

M1 Poster Session I 08:30 - 09:45

Electrically driven back flushing during membrane ultrafiltration of whey, J. Pridal*, J. II-469
Pridal, A. Urban, Mikropur s.r.o.; Z. Bubnik, V. Pour, ICT Institute of Chemical Technology Prague, Czech Republic
Membrane filtration of hyaluronic acid solution in constant pressure cell, T.-W. Cheng*, C.-J. Hsu, Y.-L. Chiu, Tamkang University, Taiwan

Mass transfer of TransMembrane Chemistry Sorption using microporous hollow fiber membrane contactors, M. Ulbricht*, J. Schneider, M. Stasiak, Membrana GmbH, Germany; J. Munoz, B. Kitteringham, Membrana Charlotte, USA

Drinking water, cryptosporidium, membrane filtration and the "long term 2 enhanced surface water treatment rule", U. Kolbe*, I. Lomax, Dow Water & Process Solutions, Germany; D.J. Gisch, The Dow Chemical Company Midland, USA

Effects of membrane pore size on the performance of cross-flow microfiltration of BSA/Dextran mixtures, K.-J. Hwang*, P.-Y. Sz, Tamkang University, Taiwan


Extraction of polyphenols from grape seeds by high voltage electrical discharges and extract concentration by membrane process, D. Liu, E. Vorobiev*, J-L. Lanoiselle, University of Compiègne; R. Savoire, ESCOM - Ecole Supérieure de Chimie Organique et Minérale, France

Dynamic cross-flow filtration for isolation of extracellular products, G. Grim*, KMPT AG, Germany

High-recovery reverse osmosis desalination using wastewater twice from Tigris river water, O.A. Mohamed*, The Pilot Project for Co-generation of Water and Electricity Using Solar Thermal Energy System, Iraq; A.O. Sharif, University of Surrey, Great Britain

Velocity influence on the filtration regeneration of filter media, S.M.S. Rocha*, Federal University of Espirito Santo; L.G.M Vieira, J.J.R Damasceno, Federal University of Uberlândia; M.L. Aguiar, Federal University of Sao Carlos, Brazil

Performance of cellulose filter in gas filtration at high pressure conditions, E.H. Tanabe*, M.L. Aguiar, J.R. Coury, Federal University of Sao Carlos, Brazil

Simulation of the dust cake build-up on regenerated surface filters, S.M.S. Rocha*, Federal University of Espirito Santo; E.R. Nucci, Universidade Federal de São João Del Rei; M.L. Aguiar, Federal University of Sao Carlos, Brazil

Evaluation of the influence of operational conditions on gas filtration cake removal, P.M. Barros*; A.L.R. Cezar, M.L. Aguiar, Federal University of Sao Carlos, Brazil

A study of the compressibility of gas filtration talc cakes on fabric filters, A.G. Fargnoli, M.L. Aguiar, E.H. Tanabe*, Federal University of Sao Carlos, Brazil

Oil repellent nano-coatings for increased filtration performance, S.R. Coulson, M. McCarthy*, D.R. Evans., P2i Ltd., UK

New functionalities for textile media with GEA Tex technology, T. Stoffel*, M. Sauer-Kunze, GEA Air Treatment GmbH, Germany

Filtration of gases using textile filters, V.K. Midha*, National Institute of Technology Jalandhar, India

Measuring the Inline available adsorption capacity of Zorflex* activated carbon cloth using electro conductive techniques, A. Smith*, Chemviron Carbon Cloth Division, UK
L9 Wet Particle Classification

Wet particle classification below 1μm Challenge for basic research and technical deve-
lopment, H. Anlauf*, Karlsruhe Institute of Technology (KIT), Germany

Screening of colloidal particles in centrifuges, L.E. Spelter*, H. Nirschl, Karlsruhe Institute of Technology (KIT), Germany

Noozle disc stack disc centrifuge use in wet classification in the fine grain range, T. Hartmann*, GEA Westfalia Separator Process GmbH, Germany

L10 Cake Filtration – Cake Formation and Consolidation

Downscaling cake-filtration - An investigation of a separation process for crystallized proteins, B. Corneh*, H. Nirschl, Karlsruhe Institute of Technology (KIT), Germany

Local filtration properties for hard-to-filter compressible materials, T. Mattsson*, M. Sedin, H. Theiander, Chalmers University of Technology; M.E. Lindström, Wallenberg Wood Science Centre - Royal Institute of Technology, Sweden

Dewatering behaviour of ultrafine particle packings, S. Stein*, W. Hintz, J. Tomas, Otto-von-Guericke-University Magdeburg, Germany

M2 Cross Flow Techniques

Process development, optimization and cycle-time reduction in cross flow filtration by applying a design of experiments approach, L. Mathe*, K. Kuss, GE Healthcare Europe GmbH, Germany

Effect of colloidal interaction on the reversibility and structure of the concentration polarization layers probed by in-situ SAXS during crossflow separation process of Laponite clay dispersions, M. Abyan, F. Pignon*, A. Magnin, University Joseph Fourier Grenoble; M. Sztucki, European Synchrotron Radiation Facility, France

Influence of experimental parameters on (electro) filtration of positively charged particles, M. Hakimhashemi*, H. Saveyn, A.Y. Gebreyohannes, P. Van der Meeren, Ghent University, Belgium

G5 Particle Deposition

Simulation and measurement of dust loading of pleated air filters, P. Hettkamp*, J. Meyer, G. Kasper, Karlsruhe Institute of Technology (KIT), Germany

Numerical and experimental investigation of soot deposition in wall-flow diesel particu-
late filters, P. Kopf*, T. Deuschle, M. Piesche, University of Stuttgart, Germany

Deposition-dependent particle collection efficiency of model filter fibers in parallel arrays, T.K. Müller*, G. Kasper, J. Meyer, Karlsruhe Institute of Technology (KIT), Germany

S4 Survey Lecture

Nonwovens in filtration, Dr. Jörg Sievert, Freudenberg Filtration Technologies KG, Germany

L11 Cake Filtration – Washing and Extraction

The influence of adsorption properties - effects on the filter cake washing, M. Wilkens*, U.A. Peuker, Technical University Bergakademie Freiberg, Germany

Filter cake washing of mesoporous particles, S. Noerpel*, H. Nirschl, Karlsruhe Institute of Technology (KIT), Germany

The non-aqueous filtration of oil sand - recovery of bitumen by organic solvents, E. Schmidt*, S. Hade-Schmidt, U.A. Peuker, Technical University Bergakademie Freiberg; F. Schmidt, Siemens AG, Germany
**M3 Membrane Bio Reactor 13:15-14:30**

Investigation of mechanical membrane cleaning for enhanced MBR application, S. II-546
Krause*, A. Rach; W. Lamparter, Microdyn-Nadir GmbH, Germany

Optimized hydrodynamics for membrane bioreactor with immersed flat sheet membrane modules, L. AL-Shamary*, L. Böhm, M. Kraume, Technical University of Berlin, Germany

Highly efficient, low-energy membrane method in MBR technology based on Berghof external tubular membranes, S. Goodwin, G. Catley, Aquabio Limited, Great Britain; E. Wildeboer*, Berghof Membrane Technology GmbH & Co KG, Netherlands

**G6 Modelling and Simulation 13:15-14:30**

Studies of different numerical models for a turbulent particle flow in a square pipe with 90° bend, D. Schellander*, D. Kahrmanovic, S. Pirker, Johannes Kepler University Linz, Austria

Flow and particle simulations of air cleaner filter media on microscopic scales, C. II-184
Fechter*, MAHLE Filtersysteme GmbH, Germany

Fugitive dust suppression by optimized bulk solids moistening, J. Faschingleitner*, W. II-193
Hoflinger, Vienna University of Technology, Austria

**S5 Survey Lecture 15:00-16:15**

Equipment selection and process design for solid/liquid separation processes
Dr. Steven Tarleton, Loughborough University, Department of Chemical Engineering, UK

**L12 Cake Filtration - Deliquoring 15:00-16:15**

Experimental study of filter cake cracking during deliquoring, A. Barua*, F. Stepanek, Imperial College London; G. Giorgio, W. Eagles, GlaxoSmithKline Ltd., UK

Comprehensive characterisation of material properties for dewatering: How much is enough?, R.G. de Kretser, A. Stickland*, S. Usher, P.J. Scales, University of Melbourne, Australia

Experimental and numerical investigation of the dewatering process of sewage screenings, H. Gregor*, U. Janoske, University of Wuppertal; W. Rupp, University of Cooperative Education Mosbach; M. Kuhn, Kuhn GmbH, Germany

**M4 Waste Water Treatment 15:00-16:15**

Recovery of polyphenols from paper industry effluent using pretreatment assisted ultrafiltration, D. Trebouet*, S.K. Singh, S. Ghnimi, IPHC University of Strasbourg, France

Clever, economical solutions for process media and wastewater recycling with membrane technology, P. Messerli*, W. Hochstrasser, L. Solinger, VP-Hottinger AG, M. Haller, aqua-System AG, Switzerland


**G7 Surface Filtration 15:00-16:15**

An L9 orthogonal design methodology to study the impact of operating parameters on pulse-jet filtration process, A. Mukhopadhaya*, National Institute of Technology Jalandhar, India

Prediction of cake-structure and pressure-drop evolution during filtration of polydisperse nanoparticles, T.D. Elmae*, Technical University of Denmark, Denmark; D. Werz, A. Tricoli, S.E. Pratsinis, ETH Zürich University, Switzerland
**Investigation of filter cake removal with different puff-back cleaning modes in a panel bed filter**, K.P. Gaarder*, L. Wang, O.K. Sanju, J.E. Hustad, Norwegian University of Science and Technology, Norway

**Simulation in the field of gas filtration and separation**, I-78
Prof. Paolo Tronville, Politecnico di Torino, Dipartimento di Energetica, Italy

**Pushing the limits - How to continue a success story - The BHS-high performance rotary pressure filter**, D. Steidl*, BHS- Sonthofen, Germany

**Hi-Bar steam pressure filtration of an organic acid-process simplification by a hybrid separation process**, R. Bott*, T. Langeloh, E. Ehrfeld, BOLEKA GmbH, Germany

**Exploring the influence of feed material properties on full cycle optimisation of fill, squeeze and blow plate and frame pressure filters**, R.G. de Kretser, A. Stickland*, P.J. Scales, University of Melbourne, Australia

**Electrokinetic flotation of wastewater in a kinetic model tank**, J.Q. Shang*, Y. Xu, The University of Western Ontario, Canada; F. Yono, Chrysler Group LLC, USA

**Sorptive deep bed filtration by the application of embedded ion exchangers in cellulosic filter sheets**, S. Lösch*, U.A. Peuker, Technical University Bergakademie Freiberg, Germany

**Method of testing metal working fluid mist separators**, T. Laminger*, M. Stecher, W. Hoflinger, Vienna University of Technology, Austria

**Temporal evolution of the saturation profile of an oil-mist filter**, D. Kampa*, J. Buzengeiger, J. Meyer, G. Kasper, Karlsruhe Institute of Technology (KIT), Germany; B. Mullins, Curtin University of Technology, Australia

**The importance of drainage in mechanical fibrous filters**, M. Dalemo*, Absolent AB, Sweden

**Thursday, March 24, 2011**

**On some macroscopic models for depth filtration: Analytical solutions and parameter identification**, O. Iliev, R. Kirsch*, Z. Lakdawala, Fraunhofer Institute for Industrial Mathematics ITWM, Germany; V. Starikovicius, Vilnius Gediminas Technical University, Lithuania

**A novel experimental method to determine dirt particle distribution inside filter material samples**, G. Boiger*, ICE Strömungsforschung GmbH; G. Reiss, W. Brandstätter, University of Leoben, Austria

**Nonwovens: Effect width fibre size distribution**, H.H. Kleizen, Parker Filtration BV & Delft University of Technology, Netherlands

**Hyperbaric disc filter for dewatering of copper flotation concentrate**, R. Raberger, G. Krammer*, Andritz AG, Austria

**Continuous pressure filtration at high temperatures - Fundamentals and process design**, R. Bott*, T. Langeloh, Bokela GmbH, Germany

**Benefits of hi-bar filtration in counterpressure design**, R. Bott*, T. Langeloh Bokela GmbH, Germany
**M5  New Membranes**  
08:30 - 09:45

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<td>Innovative coating technologies for membrane media</td>
<td>T. Kolbusch*, C. Dittrich, J. Hanel</td>
<td>Coatema Coating Machinery GmbH, Germany</td>
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<td>Membranes in conjunction with functional water-soluble polymers to remove pollutants</td>
<td>B.L. Rivas, S.A. Pooley, E. Pereira*, M. Palencia, J. Sanchez</td>
<td>University of Concepción, Chile</td>
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<td>Gas permeation of tubular buckypaper membrane</td>
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<td>Modares University; M. Fotukian, A. Rashidi*, Research Institute of petroleum Industry RIPI, Iran</td>
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<td>Application of electrostatic precipitators on road sweepers for fine dust reduction</td>
<td>M. Kaul*, E. Schmidt</td>
<td>University of Wuppertal, Germany</td>
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<td>Study of the electrostatic effect in the filtration of micrometer particles</td>
<td>M.V. Rodrigues*</td>
<td>Federal University of Alfenas; F.B. Fenara, M.L. Aguiar, University of São Carlos, Brazil</td>
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<td>Measurement and simulation of nanoparticle deposition at microstructured filter</td>
<td>A. Hellmann*, K. Schmidt, S. Ripperger</td>
<td>Kaiserslautern University of Technology; S. Rieß, A. Wiegmann, Fraunhofer Institute for Industrial Mathematics ITWM, Germany</td>
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<td>Validating the simulation of diesel soot agglomerate deposition in microstructured filter media by means of microscopic examinations</td>
<td>K. Schmidt*, S. Ripperger</td>
<td>Kaiserslautern University of Technology; *formerly Fraunhofer ITWM, Germany</td>
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<td>Comparison of loaded DPF backpressure from different engine cycles and the cam- bustion DPF testing system</td>
<td>K. StJ Reavell*, G.I. Inman, T. Hands, M.G. Rushton, A.H. Bown, C. Nickolaus, Cambustion Ltd., Great Britain</td>
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<td>Reduction of NOx, SO2 &amp; mercury emission from coal fired fluidized bed boilers</td>
<td>M. Jedrusik*, M.A. Gostomczyk, A. Swierczok</td>
<td>Wrocław University of Technology, Poland</td>
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<td>Industrial sampling and gas emission monitoring in stationary source</td>
<td>F. de Almeida Filho, M. A. Martins Costa</td>
<td>UNESP - São Paulo State University; M.L. Aguiar*, E.H. Tanabe, F. Hiromitus, UFSCAR - Federal University of São Carlos, Brazil</td>
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<td>Investigations into the collection of fine dust by facade greenery</td>
<td>D. Bracke*, A. Reznik</td>
<td>University of Wuppertal, Germany</td>
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<td>A new approach to deriving particle size fractions from a laser optical dust cloud measurement</td>
<td>S. Bach*, E. Schmidt</td>
<td>University of Wuppertal; M. Weiß, Palas® GmbH, Germany</td>
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**L17  Depth Filtration - Modelling and Simulation II**  
11:00 - 12:15

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<td>Modelling and simulation of filter media loading and of pleats deflection</td>
<td>H. Andrä, O. Iliev, M. Kabel*, Z. Lakdawala, R. Kirsch</td>
<td>Fraunhofer Institute for Industrial Mathematics ITWM, Vilnius Gediminas Technical University, Lithuania</td>
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<td>The influence of filter material deformation on permeability and pressure loss</td>
<td>M. Matlín*, G. Boiger</td>
<td>ICE Strömungsforschung GmbH; W. Brandstätter, University of Leoben, Austria</td>
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<td>Modelling of non-spherical dirt particle motion and deposition in fluid filtration processes</td>
<td>G. Boiger*, M. Matlín</td>
<td>ICE Strömungsforschung GmbH; W. Brandstätter, University of Leoben, Austria</td>
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**L18  Regenerable and Non-Regenerable Filters for Cleaning of low concentrated Liquids I**  
11:00 - 12:15

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<td>Experimental studies of the superposed filtration mechanisms in a candle filter</td>
<td>X. Romani Fernández*; H. Anlauf, H. Nirschl</td>
<td>Karlsruhe Institute of Technology (KIT), Germany</td>
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New methods of boiler- and process water microfiltration form an economical alter-native to replace traditional sand filters, S. Strasser*, J. Baumgartinger, R. Größwang,Lenzing Technik GmbH; Austria

Selection and Design a multi-purpose filter with existing resources and technology for cost effective utility and operation, K. Roy*, Suzikline Group, India

Dynamic washing of highly concentrated suspensions of finest particles by means of rotating disc filters, D. Goldnik*, R. Weiler, S. Ripperger, Kaiserslautern University of Technology, Germany

Reduction of membrane biofouling through effective removal of primary biofouling contaminant: Transparent exopolymer particles (TEP), H. Mowers, R. Komlenic*, Ahlstrom Filtration LLC, USA

Resuspensions' characterisation of membrane filter cake particles in liquid media via particle counter during a regeneration process, T. Quadt*, E. Schmidt, University of Wuppertal, Germany

The effect face velocity, pleat density and pleat orientation on the most penetrating particle size, pressure drop and fractional efficiency of HEPA filters, I.S. Al-Attar*, R.J. Wakeman, E.S. Tarleton, Loughborough University, UK; A. Husain, Kuwait Institute for Scientific Research, Kuwait

Determination of integral and local efficiency of HEPA and ULPA filters by application of an automated scanning technique, S. Große*, C. Peters, A. Rudolph, Topas GmbH, Germany

Improvements in the quick and reliable determination of HEPA and ULPA filter classes, S. Schütz*, M. Schmidt; Palas GmbH, Karlsruhe, Germany

On the recent progress in predicting filtration efficiency for filter elements, Z. Lakdawala*, O. Iliev, Fraunhofer Institute for Industrial Mathematics (ITWM); M. Dedering*, IBS Filtran, Germany; V. Starkinovicius, Vilnius Gediminas Technical University, Lithuania


Fast media-scale multipass simulations, J. Becker, S. Rief*, A. Wiegmann, Fraunhofer Institute for Industrial Mathematics (ITWM); M. Lehmann, S. Pfannkuch, MANN+HUMMEL GmbH, Germany

Treatment of highly viscous lubricants by high gradient magnetic separation technique, K. Menzel*, J. Lindner, H. Nirschl, Karlsruhe Institute of Technology (KIT), Germany

Modeling and predicting clogging behavior of the filtration process with fibrous filter media for used engine lube oils, F. Gruschwitz*, M. Förster, N. König, MAN Diesel & Turbo SE; H. Nirschl, H. Anlauf, Karlsruhe Institute of Technology (KIT), Germany

New tools to manage and optimize management of cleanliness requirement of fluid systems, C. Peuchot*, IFTS Institute of Filtration and Techniques of Separation, France
Cabin air filter media with bicomponent spunbond support layer, A. Maltha*, E. Koerntjes, Colbond B.V., Netherlands

Efficiency of electret cabin air filters using different test aerosols, A. Breidenbach*, F. Schmidt, University of Duisburg-Essen, Germany

Loaded adsorption filter - a solution for purgeable, volatile components and odours in automotive interiors?, F. Diederich*, TAG COMPOSITES & CARPETS GmbH, Germany

Comparing the operating behaviour of pulse cleaned filter bags with that of flat media in a VDI tester, O. Kurtz*, J. Meyer, G. Kasper, Karlsruhe Institute of Technology (KIT), Germany

Novel test rig for compressed air filters: background, layout, first results, W. Moelter*, Siemens*, G. Lauber, H. Finger, S. Haep, Institute for Energy and Environmental Technology IUTA; D. Bathen, University Duisburg-Essen, Germany

Optimising life cycle costs - Sandler AG's new synthetic pocket filter media, U. Hornfeck*, Sandler AG, Germany

Numerical simulation of agglomeration and filtration of colloidal suspensions, H. Nirschl*, F. Keller, C. Eichholz, B. Schäfer, Karlsruhe Institute of Technology (KIT), Germany

Effect of some additives on enhancing filtration rate of new valley oxidized phosphate concentrate, E.A. Abdel-Aal*, Central Metallurgical R&D Institute; E.A. Abdel Rahman, Egypt Phosphate Company; A.T. Kandil, Helwan University, Egypt

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