

Monday morning, April 26 th									
9:00	Opening of WCPT6 – Rob Meesters								
9:05	Plenary Session I – Room Tokio – Chair B. van Laarhoven Keynote lecture: Wolfgang Peukert, University of Erlangen: Particle Technology for Materials Science								
10:00	Coffee Break – Set up posters								
Session I	T0121: Modelling and Simulations – DEM	T1021: Nanoparticles – Production and Functionalization via Gas Phase Routes	T0111: Modelling and Simulations – CFD	T0601: Particle Characterisation	T0411: Multiphase Flow and Separations – Fluidisation and Fluid Beds	T0931: Bulk Solids – Pneumatic Conveying & Mixing	T0301: Aerosols	T1201: Food/Pharma/Life Science Applications	T0811: Interface Controlled Systems and Processes – Aggregation and Dispersion
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Shanghai (3)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)
Chairs	T. Tsuji H. Krügel-Emden	L. Mädler J. van Erven	J. Li C. G. Ilea	H. G. Merkus T. Matsuyama	B. Formisani H. Li	T. Destoop	M. Weiss	V. Ilberg S. Watanabe	T. Sobisch S. C. Brown
10:30	Microscopic Simulation of Non-Spherical Particles in Suspensions under Shear Andreas Wöhrsch, Torsten Kraft ¹ , ¹ Fraunhofer Institute for Mechanics of Materials, Freiburg	Scaling-up the generation of monodisperse nanoparticles by mobility-based size fractionation Einar Krus ¹ , Marcel Rouenhoff ¹ , Esther Hönigsmann ¹ , Eladio Ramirez ¹ , Markus Kasper ¹ , ¹ Nanostrukturtechnik, Duisburg, ² RAMEM, Madrid, ³ Matter Engineering, Wohlen	Simulation of dense granular flows: rheology and dynamics of wall stress in silos Riccardo Artoni ¹ , Andrea Santomaso ¹ , Paolo Canu ¹ , ¹ Università di Padova, Padova	Preparation for PSD analysis Henk G. Merkus ¹ , ¹ Delft University of Technology, Delft	Modelling coating quality in fluidized bed coating: spray and particle sub-model Mike Vanderroost ¹ , Frederik Ronsse ¹ , Koen Dewettinck ¹ , J.G. Pieters ¹ , Mark Jones ¹ , ¹ The University of Newcastle, Callaghan Speaker: Mark Jones	Tracing System Pressure of Dense Phase Pneumatic Conveying for Industrial Applications Shengming Tan ¹ , Ken Williams ¹ , Mark Jones ¹ , ¹ The University of Newcastle, Callaghan	Coagulation of highly concentrated aerosols Sotiris E. Pratsinis ¹ , Beat Büsser ¹ , ¹ ETH Zurich, Zurich	Numerical investigation of die compaction processes for food powders by Finite Element analysis Jan-Dirk Prigge ¹ , Karl Sommer ¹ , ¹ TUNRA Bulk Solids, Callaghan	Surface modification of talc particles by dry coating: influence on the wettability and the dispersibility in aqueous solutions Guillaume Lefebvre ¹ , Laurence Galet ¹ , Alain Chamayou ¹ , ¹ RAPSODEE, Ecole des Mines d'Albi-Carmoux, Albi
10:50	An improved model for the fluid-particle interaction in two-phase systems involving different solid species or poly-disperse particles Alberto Di Renzo ¹ , Fernando Celio ¹ , Francesco Paolo Di Maio ¹ , ¹ Università della Calabria, Rende	Chemical aerosol engineering as a novel tool for large scale particle processing: From oxides to salt and metal nanoparticles Evangelos Athanassiou ¹ , Robert Grass ¹ , Wendelin Stark ¹ , ¹ ETH Zurich, Zurich	Application of CFD in predicting the breakage of protein precipitates during transport Kevin Hanley ¹ , Nixon Zumaeta ¹ , Edmond Byrne ¹ , John Fitzpatrick ¹ , ¹ University College Cork, Cork	Multi-scale agglomerates: relationship between morphology and optical properties Marthe Lagarrigue ¹ , Sandra Jacquier ¹ , Johan Debayle ¹ , Jean-Charles Pinoli ¹ , Frédéric Gruy ¹ , ¹ Ecole Nationale Supérieure des Mines de Saint-Etienne, Saint-Etienne	Fluidization Characteristics under Vertical Bed Vibration for Group A Powders Yoshihide Mawatari ¹ , Masahiro Morita ¹ , Masato Yamamura ¹ , Hiroaki Kuroki ¹ , ¹ Kyushu Institute of Technology, Japan	An Investigation of Transient Phenomena in Dense Phase Pneumatic Transport Mark Jones ¹ , Kenneth Williams ¹ , Shengming Tan ¹ , Isabel Jabs ¹ , ¹ The University of Newcastle, Callaghan	DEM-CFD modelling of fine powder dispersion in pharmaceutical inhalers Aibing Yu ¹ , Runyu Yang ¹ , Zhenbo Tong ¹ , Santoso Adi ¹ , Hak-Kim Chan ¹ , ¹ University of New South Wales, Sydney, ² University of Sydney, Sydney	Understanding the structure and dissolution of multi-component food powders Edgar Chávez Montes ¹ , Radboud Nelissen ¹ , Niha N Dogan ¹ , Alejandro Marabí ¹ , Grégoire Ricard ¹ , Laurence Ducasse ¹ , ¹ Nestlé PTC Orbe, Orbe, ² Nestlé Research Centre, Lausanne, ³ Nestlé PTC Konolfingen, Konolfingen	Tailoring Silica Nanotechnology in Aqueous Environments: A case study on Chemical Mechanical Planarization G. Bahar Basim ¹ , Scott Brown ² , Ivan Vakarelski ³ , Yakov Rabinovich ³ , Brij Moudgil ³ , ¹ Ozyegin Uni, Istanbul, ² Uni of Florida, Gainesville, ³ Inst. of Chemical and Engineering Sciences, Jurong Island
11:10	Comparison of continuous granular mixer periodic slice and full blender simulations Avik Sarkar ¹ , Carl Wassgren ¹ , ¹ Purdue University, West Lafayette	Spark Production of Magnesium Nanoparticles for Hydrogen Storage Vincent Vons ¹ , Andreas Schmidt-Ott ¹ , Rias Leegwater ¹ , Walter Legerstee ¹ , Stefan Peukert ¹ , ¹ Delft University of Technology, Delft	Simulation of liquid dispersion in powder beds using DEM-CIP coupling method Kimaki Washino ¹ , Hong Sing Tan ¹ , Michael Hounslow ¹ , Agba Salman ¹ , ¹ The University of Sheffield, Sheffield, ² PGC Technical Centres, Newcastle upon Tyne	Novel in-situ techniques for particle surface characterisation based on optical Second Harmonic Generation Benedikt Schärer ¹ , Wolfgang Peukert ¹ , ¹ Institute of Particle Technology, Erlangen	Observation of Reverse Core-Annular Flow in Risers with Geldart Group B Particles Jia Wei Chen ¹ , Christine M. Hrenya ¹ , Ray A. Cocco ¹ , John G. Findlay ¹ , S.B. Reddy Karri ¹ , Ted M. Knowlton ¹ , ¹ University of Colorado at Boulder, Boulder, ² Particulate Solid Research, Chicago	Investigation of Pressure and Gas Velocity in Bypass Pneumatic Conveying Systems Bin Chen ¹ , Mark Glyne Jones ¹ , Kenneth Charles Williams ¹ , Shengming Tan ¹ , Ying Wang ¹ , ¹ The University of Newcastle, Newcastle	Filter Media and Dust Particles Segregated by Vibration Sieve in Granular Bed Filtration Li-Shin Lu ¹ , Shu-San Hsiau ¹ , Ko-Yen Chi ¹ , ¹ Technology and Science Institute of Northern Taiwan, Taipei, ² National Central University, Jhongi City, Taoyuan County	Whey protein based food-grade microparticles for targeted release application Michael Betz ¹ , Alexander Tolkach ¹ , Ulrich Kulozik ¹ , ¹ TU München, Freising	Gelation, Gel Fragmentation and Consolidation of Precipitated Silica Hussein Sahabi ¹ , Kerstin Quarch ¹ , Matthias Kuhn ¹ , ¹ Institut für Thermische Verfahrenstechnik, Karlsruhe
11:30	Predicting the Mixing Behaviour of Discrete-Element-Method Sieves Rouven Weiler ¹ , Siegfried Ripperger ¹ , ¹ University of Kaiserslautern, Kaiserslautern	Synthesis and Functionalisation of Copper Nanoparticles in a spark discharge generator Henning Förster ¹ , Christine Funk ¹ , Wolfgang Peukert ¹ , ¹ Institute of Particle Technology, Erlangen	The Effect of Many-body Interactions on the Electrostatic Force in an Array of Spherical Particles A. O. Sharif ¹ , G. Hassan ¹ , A. Tate ¹ , U. Tuzun ¹ , ¹ University of Surrey, Surrey	Isomorphous reference material of defined non-spherical shape – A new tool for particle shape analysis Nadine Wenda ¹ , Holger Woehlecke ¹ , Ekkehard Richter ¹ , Dietmar Lerche ¹ , ¹ Dr. Lerche, Berlin, ² Humboldt University, Berlin	Relationship between Structure and Mass Transfer Coefficient in Fast Fluidized Beds Qing shan Zhu ¹ , Hongzhong Li ¹ , Baolin Hou ¹ , ¹ Institute of Process Engineering, CAS, Beijing	Friction force measurement in dense phase pneumatic conveying George Klinzing ¹ , Jae Bum Park ¹ , Nestor Vasquez ¹ , Karl Jacob ¹ , ¹ University of Pittsburgh, Pittsburgh, PA, ² Dow Chemical, Midland	A new portable instrument for real-time monitoring of airborne nanoparticles Friedhelm Schneider ¹ , Markus Pesch ¹ , Hans J. Grimm ¹ , Roland Hagler ¹ , ¹ Grimm Aerosol Technik, Ainning	Influence of chemical and structural characteristics of egg yolk granular and plasma fraction on the continuous centrifugal separation process of liquid egg yolk Thomas Strimmer ¹ , Ulrich Kulozik ¹ , ¹ TU München, Freising	Visualisation and modelling of the dissolution from air-alcohol compound drops dispersed in sunflower oil U. Tuzun ¹ , W. Duangsuwan ¹ , P.A. Serrano ¹ , ¹ University of Surrey, Surrey
11:50	From Powders to Collapsing Granular Suspensions: Discrete Modeling and Experiment Dirk Kadau ¹ , Jose S. Andrade Jr. ¹ , Hans J. Herrmann ¹ , ¹ ETH Zurich, Zurich, ² Federal University of Ceara, Fortaleza	Computational modelling of Silica nanoparticle formation in a flame reactor Markus Sander ¹ , Shradha Shekar ¹ , Weerapong Phadungsukanan ¹ , Raphael Shirley ¹ , Markus Kraft ¹ , Richard West ¹ , William Green ² , ¹ University of Cambridge, Cambridge, ² Massachusetts Institute of Technology, Cambridge	Numerical Simulation for the Transport of Solid Particles with a Vortex Ring Tomomi Uchiyama ¹ , Hisaroni Yamagi ¹ , ¹ Nagoya University, Nagoya, ² Mie University, Tsu Modelling pneumatic conveying and hopper discharge using the discrete element method Simon Lo ¹ , Vikrant Singh ¹ , ¹ CD-adapco, Dildot	A comparison between bulk powder flow properties and fluidized powder flow properties for glass beads conditioned in humid air Giovanna Landi ¹ , Diego Barletta ¹ , Paola Lettieri ¹ , Massimo Poletto ¹ , ¹ Università di Salerno, Fisciano, ² University College London, London	Investigations of the physical mechanisms leading to high pressure loss by horizontal slug flow pneumatic conveying Isabelle Lecrespes-Prigge ¹ , Karl Sommer ¹ , ¹ TUNRA Bulk Solids, Callaghan	Characterisation and Modelling of Milk Protein Concentrate Dissolution Kinetics via Focused Beam Reflectance Measurement Yuan Fang ¹ , Cordelia Selomulya ¹ , Sandra Ainsworth ¹ , Martin Palmer ¹ , Xiao Dong Chen ¹ , ¹ Monash University, Melbourne, ² Dairy Innovation Australia, Melbourne	Particle aggregation in papermaking: correlating kinetics with polyelectrolyte characteristics Maria da Graca Rasteiro ¹ , Christine Wandrey ¹ , Fernando Garcia ¹ , Paulo Ferreira ¹ , David Hunkele ¹ , Theresa Chimmakpam ¹ , Ineide Pinheiro ¹ , ¹ University of Coimbra, Coimbra, ² Ecole Polytechnique Federale de Lausanne, Lausanne, ³ AQUA+TECH, Geneve		

Monday midday, April 26 th										
12:10	Lunch and Posters									
Session II	T0431: Multiphase Flow and Separations – Dispersions	T0321: Aerosols – Spray Technology	T0122: Modelling and Simulations – DEM	T1011: Nanoparticles – Production and Functionalization via Liquid Routes	T1031: Nanoparticles – Characterisation	T0211: Crystallisation – Design, Scale-up and Control	T0511: Granulation – Wet Granulation	T1111: Science and Engineering of Particulate Materials – Composite materials	T0711: Grinding – Fundamentals	
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Shanghai (3)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)	
Chairs	U. Teipel G. K. Auerhammer	C. U. Yurteri J. C. M. Marijnissen	A. Hassanpour Rudbari J. Theuerker	R. Dave	W. Peukert O. Diwald	R. Ulrich A. Paterson	M. J. Hounslow S. Palzer	R. N. Klupp Taylor U. Peukert	F. Saito P. Guigon	
13:50	Driven motion of colloidal particles in external fields: from single particle motion to mean-field behaviour Günter K. Auerhammer ¹ , Doris Vollmer ¹ , Jinyu Zhao ¹ , ¹ Max Planck Institute for Polymer Research, Mainz	EHD – A preferred method for producing nano and nano structured pharmaceutical particles Caner Umit Yurteri ¹ , J.C.M. Marijnissen ¹ , ¹ Delft University of Technology, Delft	Bubble formation at a single orifice in a 2D gas-fluidised bed Olasaju Oloafe ¹ , M. van der Hoef ¹ , J.A.M. Kuipers ¹ , ¹ University of Twente, Enschede	Processing of W/O-emulsions for multiple emulsion in food applications Frederik Wulf ¹ , ¹ Universität Karlsruhe, Karlsruhe	Photoluminescent nanoparticle surfaces: The potential of alkaline earth oxide powders for optical applications Andreas Sternig ¹ , Slavica Stanick ¹ , Markus Mueller ¹ , Johannes Bernardi ¹ , Erich Knoezinger ¹ , Oliver Diwald ¹ , ¹ Vienna Uni of Technology, Vienna, ² Inst. des Nanosciences de Paris, Paris, ³ Friedrich-Alexander Uni, Erlangen	Characterisation of sono-chemical flow reactors Birte Pohl ¹ , Nagihan Ozyilmaz ¹ , Gunter Brenner ¹ , Urs Peukert ¹ , ¹ TU Bergakademie Freiberg, Freiberg, ² TU Clausthal, Clausthal-Zellerfeld	Characterisation of sono-chemical flow reactors Karen Haggood ¹ , Thanh Nguyen ¹ , Nicky Eshtiaghi ¹ , Wei Shen ¹ , ¹ Monash University, Clayton	Wet granulation of hydrophobic powders: structure of liquid marbles and hollow granules Karen Haggood ¹ , Thanh Nguyen ¹ , Nicky Eshtiaghi ¹ , Wei Shen ¹ , ¹ Monash University, Clayton	Production of Metal Nanoparticle Polymer Nanocomposites by Laser Ablation in Liquid for Fabrication of Medical Devices Andreas Schwenke ¹ , Philipp Wagnen ¹ , Heinz Wiegand ¹ , André Weiler ¹ , Klaus Klimenta ¹ , Anneke Loos ¹ , Jutta Fuhrrott ¹ , Eveline Sowa-Söhle ¹ , Gudrun Brandes ¹ , Stephan Barckowski ¹ , ¹ Laser Zentrum Hannover, Hannover, ² B. Braun Melsungen, Melsungen, ³ Primed Halberstadt Medizintechnik, Halberstadt, ⁴ BioMediPlant, Hannover, ⁵ Medizinische HS Hannover, Hannover	Microprocesses in confined particle bed comminution Thomas Mützel ¹ , Klaus Husemann ¹ , Urs Peukert ¹ , ¹ Institut für Mechan. Proc. Engineering and Mineral Processing, Freiberg
14:10	Measurement of hindrance factors to describe the separation behaviour of concentrated dispersions Takuya Tsuji ¹ , Keizo Yabumoto ¹ , Toshihiro Kawaguchi ¹ , Toshitsugu Tanaka ¹ , ¹ Osaka University, Suita, Osaka	Nanoparticle spray drying of small sample quantities at highest yield: separation behaviour of concentrated dispersions Cordin Arpagaus ¹ , Nina Schafroth ¹ , Marco Meuri ¹ , ¹ Büchi Labortechnik, Flawil	Validation of Discrete Element Model simulations using Magnetic Resonance Measurements in a 3-D gas-fluidized bed Christoph Müller ¹ , Daniel Holland ¹ , Mick Mantle ¹ , Andrew Sederman ¹ , Stuart Scott ¹ , Lynn Gladden ¹ , John Dennis ¹ , ¹ University of Cambridge, Cambridge	Emulsion Droplets as Reactors: A Model-Based Analysis of the Metal Oxide Nanoparticle Synthesis by Diffusive Mass Transfer across the Droplet Interface Michael Fricke ¹ , Andreas Voigt ¹ , Kai Sundmacher ¹ , ¹ MPI for Dynamics of Complex Technical Systems, Magdeburg, ² Otto von Guericke University, Magdeburg	Characterization of Gas-Borne Nanoparticle Aggregates by Wide-Angle Light Scattering (WALS) Stefan Will ¹ , Hergen Oltmann ¹ , Jörg Reimann ¹ , ¹ Universität Bremen, Bremen	Fast and rigorous development of industrial crystallization processes Pieter Vlieg ¹ , Huub Grooten ¹ , ¹ DSM Research, Geleen	Advanced In Situ Tools for the Optimization and Scale-up of Crystallization Processes Jochen Schoell ¹ , Jan Haley ¹ , Des O'Grady ¹ , Brian O'Sullivan ¹ , Benjamin Smith ¹ , ¹ METTLER TOLEDO, Columbia	Predicting liquid surface coverage of a particle in distribution nucleation Karen Haggood ¹ , Waihora Karuki ¹ , Rachel Smith ¹ , ¹ Monash University, Clayton	Synthesis of Highly Filled Nanomagnetic Polymeric Composites via Sterically Stabilized Organosols and the Spray Drying Process Martin Rudolph ¹ , Stefan Kirchberg ¹ , Cem Turan ¹ , Gerhard Ziegmann ¹ , Urs A. Peukert ¹ , ¹ TU Bergakademie Freiberg, Freiberg, ² TU Clausthal, Clausthal-Zellerfeld	Relationship between breakage force and energy by compression test Kamran Aman ¹ , Juan Tomas ¹ , Rozenblat ¹ , ¹ University of the Negev, Be'er Sheva, ² Otto-von-Guericke-University, Magdeburg
14:30	Aerodynamic Dispersion of Cohesive Powders: An Evaluation of Dry Powder Dispersers Graham Calvert ¹ , Margaret Dyson ¹ , Paul Kippax ¹ , Richard Tweedie ¹ , Mojtaba Ghadiri ¹ , ¹ Institute of Particle Science and Engineering, Leeds, ² Malvern Instruments, Malvern	A new system to characterize highly concentrated aerosols and sprays of pharmaceutical inhalers and nebulisers Maximilian Weiß ¹ , Leander Möller ¹ , ¹ Pais, Karlsruhe	DEM modelling of solids transport in mixed-flow dryers Jochen Mellmann ¹ , Kingsley Lawrence Iroba ¹ , Thomas Metzger ¹ , Evangelos Isotsas ¹ , ¹ Leibniz Institute of Agricultural Engineering Potsdam, Potsdam, ² Otto-von-Guericke University, Magdeburg, Magdeburg	Emulsion droplets serving as Nanoreactors: Prospects and Limitations of the Miniemulsion Technique to precipitate Nanoparticles Marion Gedrat ¹ , Tobias Schuler ¹ , Heike Petra Schuchmann ¹ , Wolfgang Gerlinger ¹ , ¹ Institute of Process Engineering in Life Sciences, Karlsruhe, ² IP 3 – JointLab Incorp. in KIT, Ludwigshafen & Development, Beese	Accurate and high-resolution particle size distribution characterization of pharmaceutical nano-suspensions by means of disk centrifuge based differential sedimentation Arida Tinkler ¹ , Ruxandra Govoreanu ¹ , Dinda Lauwersen ¹ , Ilse Weuts ¹ , Koen Vanhoutte ¹ , ¹ Johnson-Johnson Pharmaceutical Research & Development, Beese	A Population Balance Based Continuous Crystallizer Model Validated against Experimental Data Tian Li ¹ , Itzok Livk ¹ , ¹ CSIRO, Waterford	Influence of interparticle forces on separation efficiency by selective wet agglomeration Hitoshi Takase ¹ , ¹ Toyama University, Toyama-shi	Graphene-encapsulated nanoparticles of non-noble metals for electromagnetic applications Heather Emady ¹ , Defne Kayrak-Talay ¹ , Jim Littler ¹ , William Schwen ¹ , ¹ Purdue University, West Lafayette, ² UOP, a Honeywell Company, Des Plaines	Dispersion of a metal powder – another type of comminution Alan Rawle ¹ , ¹ Malvern Instruments, Westborough	
15:10	Shear-induced gelation phase diagram for repulsive particles Delong Xie ¹ , Hua Wu ¹ , Leonie Braun ¹ , Massimo Morbidelli ¹ , ¹ ETH-Zurich, Zurich, ² BASF, Ludwigshafen	Dispersibility of spray dried powders for inhalation Claudius Weiler ¹ , Marc Egen ¹ , ¹ Boehringer Ingelheim Pharma, Ingelheim	An On-line Expert System for the Selection of Equipment for Particle Characterization Richard Holdich ¹ , ¹ Loughborough University, Loughborough	Liquid-phase Synthesis-assisted Preparation of Novel Full-color-emitting BCNO Phosphors Under Low Temperature Process Kikuo Okuyama ¹ , Takashi Matsuda ¹ , Aseer Eshy ¹ , ¹ Hiroshima University, Higashi Hiroshima	Advancement in Zeta Potential Measurement Renliang Xu ¹ , ¹ Beckman Coulter, Miami	Continuous Precipitation of Active Pharmaceutical Ingredients (API) in High Energy Input Mixers Jörg Brozio ¹ , ¹ Novartis Pharma, Basel	Impact behaviour of water-soluble amorphous food agglomerates: agglomeration and breakage phenomena Sergiy Antonyuk ¹ , Lennart Fries ¹ , Stefan Heinrich ¹ , Stefan Palzer ¹ , ¹ Hamburg University of Technology, Hamburg, ² Nestlé Research Centre Lausanne, Lausanne	Magnetic Gelation Marco Fulani ¹ , Marco Lattuada ¹ , Massimo Morbidelli ¹ , ¹ ETH, Zurich	Segregation in Ball Size during Tumbling Ball Milling with Two Different Ball Sizes Keisuke Yagi ¹ , Riko Sada ¹ , Junya Kano ¹ , Fumio Saito ¹ , ¹ Tohoku University, Sendai	

Monday afternoon, April 26 th									
Session III	T1022: Nanoparticles – Production and Functionalization via Gas Phase Routes	T0621: Particle Characterisation – Control of Particle Size	T0101: Modelling and Simulations	T1012: Nanoparticles – Production and Functionalization via Liquid Routes	T0421: Multiphase Flow and Separations – Powder Flow	T0941: Bulk Solids – Bulk Solids Handling	T0531: Granulation – Effect of Formulation	T0331: Aerosols – Measurements	T0801: Interface Controlled Systems and Processes
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Shanghai (3)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)
Chairs	W. Stark G. Kasper	A. Tricoli	W. Ge P. Schwarz	T.-J. Wang M. Voigt	S. Matsusaka B. van Laarhoven	J. Tomas A. Salman	R. Wengeler P. K. Seville	L. Morawska A. Schmidt-Ott	M. da Graca Rasteiro F. Babick
16:00	Chemical vapour synthesis of silicon nanoparticles Anna Lähde ¹ , Mika Ihalainen ¹ , Unto Tapper ¹ , Jorma Jokinen ¹ , ¹ University of Kuopio, Kuopio, ² Technical Research Centre of Finland, VTT	Size Selected Flame-made Agglomerates of SnO ₂ nanoparticles as Gas Sensors Antonio Tricoli ¹ , Helmi Keskinen ¹ , Matteo Mariani ¹ , Jyrki Makela ¹ , Sotiris Pratsinis ¹ , ¹ ETH Zurich, Zurich, ² Tampere University of Technology, Tampere	Design of gas-phase coating of nanoparticles Beat Büsser ¹ , Sotiris E. Pratsinis ¹ , ¹ ETH Zurich, Zurich	Precipitation of ZnO semiconductor nanoparticles in organic solvents Doris Segels ¹ , Wolfgang Peukert ¹ , ¹ Institute of Particle Technology, Erlangen	Experimental and theoretical analysis of friction force on vertical plug flows Evgeny Novitskiy ¹ , Nir Freund ¹ , Haim Kalman ¹ , George Klinzing ¹ , ¹ Ben Gurion University of the Negev, Beer Sheva, ² University of Pittsburgh, Pittsburgh	Pilot scale investigation of the influence of silo insert on flow pattern and wall pressure Johannes Hartl ¹ , Jin Y. Ooi ¹ , Gisle Ertas ¹ , ¹ BASF, Ludwigshafen, ² University of Edinburgh, Edinburgh, ³ POSTEC, Porsgrunn	Wetting and sinking of grains: experiments and modelling Julien Dupas ¹ , Laurent Fornay ¹ , Marco Ramaioli ¹ , ¹ Nestle Research Center, Lausanne	A new type of aerosol charge neutralizer on the basis of an electrostatic discharge Markus Wild ¹ , Jörg Meyer ¹ , Gerhard Kasper ¹ , ¹ Karlsruhe Institute of Technology (KIT), Karlsruhe	Development of microstructured systems for the encapsulation of hydrophilic bioactive ingredients: Interactions between anthocyanins and matrix ingredients Kerstin Fries ¹ , Heike P. Schuchmann ¹ , ¹ Universität Karlsruhe, Karlsruhe
16:20	Nanocrystalline Zinc Oxide – Routes to Functional Nanomaterials Moazzam Ali ¹ , Markus Winterer ¹ , Ruzica Djendjic ¹ , ¹ Nanoparticle Process Technology, Duisburg	Heating properties of magnetic nanoparticles in solid and liquid matrices Mandeep Singh ¹ , Ales Zadrazil ¹ , Ruzica Djendjic ¹ , ¹ Institute of Chemical Technology Prague, Prague	Markov chain modelling of particle motion in an internal fluidized bed Kevin Conin ¹ , Muammer Catak ¹ , ¹ University College Cork, Cork	Weather durability of Titanium dioxide particles coated with transition metal oxides Ting-Jie Wang ¹ , Bing-Xin Wei ¹ , Hai-Xia Wu ¹ , Bei Li ¹ , ¹ Tsinghua University, Beijing	Comparison between CFD Numerical Results and PIV Experimental Data for the Gas-Solid Flow in a Vertical Duct Rodrigo Koerich Decker ¹ , Dirceu Noriler ¹ , Mônica Círcio ¹ , Vinicyus Rodolfo Wiggers ¹ , Milton Mori ¹ , Henry França Meier ¹ , ¹ Regional University of Blumenau (FURB), Blumenau, ² State University of Campinas, Campinas	Investigation of flow characteristics in vertical and inclined pipes using tomography measurements and DEM simulations Tim Donohue ¹ , Ken Williams ¹ , ¹ University of Newcastle, Callaghan Speaker: Mark Jones	Shelf life of granules – what about surface roughness? Torsten Stelzer ¹ , Joachim Ulrich ¹ , ¹ Thermische Verfahrenstechnik, Halle	Measurement of deposition and agglomeration of charged aerosol along a cylindrical pipe Nathalie Bardin-Monier ¹ , Marwen Rabhi ¹ , Jean-Christophe Appert-Collin ¹ , Dominique Thomas ¹ , Denis Bemer ² , ¹ LSGC CNRS- Nancy Université, Nancy, ² INRS, Vandoeuvre-les-Nancy	Sedimentation and consolidation behaviour of flocculated dispersions characterized by different methods measuring transmission Titus Sobisch ¹ , Dietmar Lerche ¹ , Anne-Katrin Zierau ¹ , ¹ LUM, Berlin
16:40	Aerosol processing and stabilization of catalytically active nanoparticles Jiri Dohnal ¹ , Pavel Kovacic ¹ , Avel Binder ¹ , Martin Seipenbusch ¹ , Gerhard Kasper ¹ , ¹ Karlsruhe Institute of Technology (KIT), Karlsruhe	Formation and transport properties of hard-shell microparticle avel nanoparticles Jiri Dohnal ¹ , Pavel Kovacic ¹ , Avel Binder ¹ , Martin Seipenbusch ¹ , Gerhard Kasper ¹ , ¹ Karlsruhe Institute of Technology (KIT), Karlsruhe	Probabilistic modelling of particle motion in a circulatory fluidized bed including inter-particle collisions Kevin Conin ¹ , Muammer Catak ¹ , Kevin Hanley ¹ , Dario Tellez-Medina ¹ , Edmond Byrne ¹ , John Fitzpatrick ¹ , ¹ University College Cork, Cork	A flexible, cost-effective production method for high-quality nanoparticles Alex Silvia Suciu ¹ , Cristina Alexandru ¹ , Ivar Waernhus ¹ , ¹ Prototech AS, Bergen, ² University of Bergen, Bergen	Influence of humidity cycling on the caking behaviour of three food powders Kevin Hanley ¹ , Nicolas Descamps ¹ , Kilian O'Meara ¹ , Conor Jones ¹ , Donncha Walsh ¹ , John Fitzpatrick ¹ , ¹ University College Cork, Cork	Effect of Particle Size on Packing Fraction Obtained by Dry Compaction of Powders Having Sizes in the Range from Micron to Nano-meter Kuniki Gotoh ¹ , Shusaku Maeda ¹ , Erika Nakahara ¹ , Mikio Yoshida ¹ , Jun	Design of granules for the pressing by organic compaction aids Manfred Fries ¹ , ¹ Fraunhofer Institut Keramische Technologien und Systeme IKTS, Dresden	New Instrument for the Morphology Characterization of Nanoaerosols Michael Mertler ¹ , Bernd Sachweh ¹ , David Y. H. Pui ¹ , Jing Wang ¹ , Heinz Fissan ¹ , ¹ BASF, Ludwigshafen, ² Particle Technology Laboratory, Minneapolis, UTA, Duisburg	Local properties of clay based materials under tribological testing Viet Hai Hoang ¹ , Yannick Melinge ¹ , Arnaud Perrot ¹ , Damien Rängeard ¹ , ¹ LeB – LGCCM – INSA, Rennes, ² LeB – LIMAFB – UBS, Loriet
17:00	Control over the diameter, density and positioning of Multi Wall Carbon Nanotubes on Insulators Marco Valentini ¹ , Christiaan Zonniville ¹ , Vincent Vons ¹ , Kees Hagen ¹ , Rued van Ommen ¹ , Andreas Schmidt-Ott ¹ , ¹ Delft University of Technology, Delft	Several methods to quantify the dispersion progress of concentrated dispersions on insulators André Nogowski ¹ , Frank Babick ¹ , Michael Stritz ¹ , ¹ TU Dresden, Dresden	Stochastic modeling of fluidized bed spray drying: effect of particle porosity and bed temperature on agglomeration kinetics Korina Terrazas-Velarde ¹ , Mirko Peglow ¹ , Evangelos Tsotsas ¹ , ¹ Otto-von-Guericke Universität, Magdeburg, Magdeburg	Characterization of photo- and electroactive phosphonic acids adsorbed to the surfaces of ZnO nanorods Michael Voigt ¹ , Martin Klauemper ¹ , Alexander Ebel ¹ , Michael Janik ¹ , Bernhard Meyer ¹ , Lothar Frey ¹ , Andreas Hirsch ¹ , Wolfgang Peukert ¹ , ¹ Friedrich-Alexander University Erlangen-Nürnberg, Erlangen	Development of mesoporous ZSM-5 type catalysts upon desiccation in alkaline medium: a way to enhance the catalytic performance of the direct oxidation of benzene to phenol Sofia Lopez-Orozco ¹ , Saiprasath Gopalakrishnan ¹ , Alessandro Zampieri ¹ , Wilhelm Schwieger ¹ , ¹ Lehrstuhl für Chemische Reaktionstechnik, EAM Cluster/FAU, Erlangen	Segregation of Formulated Bulk Powders due to Electrostatic Effects Mojtaba Ghadiri ¹ , Enes Šupuk ¹ , Alexandra Ebel ¹ , Michael Janik ¹ , Bernhard Meyer ¹ , Lothar Frey ¹ , Andreas Hirsch ¹ , Wolfgang Pe			

Tuesday morning, April 27 th									
9:00 Plenary Session I – Room Tokio – Chair G. Meesters Keynote lecture: Paul Mort, Proctor and Gamble: Optimization of particulate processes – implications of intermediate flows for batch and continuous processes									
10:00 Coffee Break									
Session IV	T0123: Modelling and Simulations – DEM	T0932: Bulk Solids – Pneumatic Conveying & Mixing	T1032: Nanoparticles – Characterisation	T0832: Interface Controlled Systems and Processes – Assemblies and Properties	T0622: Particle Characterisation – Control of Particle Size	T0311: Aerosols – Particle Production and Functionalization	T0241: Crystallisation – Computational Techniques	T0412: Multiphase Flow and Separations – Fluidisation and Fluid Beds	T1202: Food/Pharma/ Life Science Applications
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Shanghai (3)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)
Chairs	J. Favier, C. Biewers	G. Klinzing, K. Gotoh	I. G. Loscertales, V. A. Vons	M. Kappel, R. Rabinovich	T. Koch, N. Marchet	S. E. Pratsinis, S. G. Lorentales	P. Vonk, B. Biscans	R. van Ommen, A. W. Weimer	G. Meesters, S. Palzer
10:30	Yield locus from a single DEM simulation Stefan Luding ¹ ¹ UWente, Enschede	Binder Distribution: Comparison of Continuous and Batch Granulation Processes James D. Osborne ¹ , James J. Cartwright ² , David G. Dougherty ³ , Michael J. Hounslow ⁴ , Agba D. Salman ⁵ ¹ Department of Chemical and Process Engineering, University of Sheffield, Sheffield, Sheffield, UK ² GlaxoSmithKline R&D, Harlow, Essex	Nanotoxicology: Physico-chemical differences between nanoparticle and molecule derived toxicity Wendelin Stark ¹ , Ludwig Limbach ¹ ¹ ETH Zurich, Zurich	Microwires Network induced by Drying Liquid Bridge of Gold Nanoparticles Suspensions Ko Higashitani ¹ , Ivan U. Vakarelski ¹ , Derek T. C. Chan ² , Takashi Nonoguchi ¹ , Hiroyuki Shimto ¹ ¹ Kyoto University, Kyoto, Kyoto, Japan ² University of Melbourne, Parkville, Victoria 3010	Combining size and shape analyses for a more complete particle size characterization Nicolas Marchet ¹ ¹ CILAS, Orléans	Morphology-Controllable of Porous Hyaluronic Acid Prepared using Template-driven Self-assembly technique via spray routes Kikuo Okuyama ¹ ¹ Asep Bayu Dami Nandiyanto ¹ , Ferry Iskandar ¹ ¹ Hiroshima University, Higashi Hiroshima	Comparison of several thermodynamic models for the prediction of drug molecule solubility Baptiste Bouillot ¹ , Sébastien Teychené ¹ , Béatrice Biscans ¹ ¹ Université de Toulouse, Toulouse	Design of new fluidized bed reactors for CVD-processes Timo Sterm ¹ , Karl-Ernst Wirth ¹ ¹ Institute of Particle Technology, Erlangen	Physico-chemical, mechanical, electrokinetic and stabilizer-solution properties of aqueous and non-aqueous API nanosuspensions produced by stirred media milling Michael Juhnke ¹ , Arun-Kumar Jain ¹ , Novartis Pharma, Basel ¹ Institute of Pharmaceutical Sciences, ETH Zurich, Zurich
10:50	Calculation of Stresses on Inserts in Bulk Silos by Discrete Element Method (DEM) Marcus Ripp ¹ , Günter Dau ¹ , Siegfried Ripperger ¹ ¹ TU Kaiserslautern, Kaiserslautern	Pneumatic conveying of fluidizable, abrasive or fragile powders Thierry Destoop ¹ ¹ NEU International Process, Marçq en Baroeul	Molecular Information from Gold Nanoparticle Surfaces by Sum Frequency Generation Armin Rumpel ¹ , Wolfgang Peukert ² ¹ Institute of Particle Technology and Erlangen Graduate School, Erlangen, Erlangen, Germany ² Institute of Particle Technology, Erlangen	Thin layer coating of the surface of solid particles with a composite material: application to the coating of food powders Fabien Laboulié ¹ , Sylvain Diquet ¹ , Mehdi Hemati ² , Alain Lamure ² , Harold Maffre ² ¹ DSM Nutritional Products Ltd, Kaiseraugst, LGC, Toulouse, CIRIMAT, Toulouse ² OCchio, Angleur	Influence of particle flatness and elongation on size distributions obtained from laser diffraction, static and dynamic image analysis. Eric Pirard ¹ , Calice Arnaud ¹ , Frédéric Michel ¹ , Godefroid Dislaire ² ¹ University of Liège, Liège ² OCchio, Angleur	Cancelled	Prediction of Molecular Crystal Morphology using Surface Free Energy Minimization Boris Shekunov ¹ , Gregory Astrakharchik ² ¹ Bristol-Myers Squibb, New Brunswick ² UPC-Universitat Politècnica de Catalunya, Barcelona	Residence Times in Fluidized Bed Granulation Matthias Bömer ¹ , Mirko Peglow ¹ , Maureen S. van Buijtenen ² , Niels G. Deen ² , Evangelos Tsotsas ³ , J.A.M. Kuipers ³ , Stefan Heinrich ³ ¹ Thermal Process Eng., Magdeburg ² Science and Technology, Enschede ³ Solids Process Eng. and Particle Technology, Hamburg	Magnetic Iron Oxide-Polymer for Gene Delivery: Insights into Vector Design for High Transfection Efficiency May Lim ¹ , Maria Arisanti ¹ , Christopher Marquis ¹ , Rose Amal ¹ ¹ The University of New South Wales, Sydney
11:10	Investigation of Grinding Ball Movement and Energy Distribution in Planetary Balls Mills Stefan Rosenkranz ¹ , Sandra Breitung-Faes ¹ , Arno Kwade ¹ ¹ Institute for Particle Technology, Braunschweig	Predicting the dynamics of a continuous powder mixer in transitory regimes Chawki Amarcha ¹ , Cendrine Gutmel ¹ , Jean-Louis Diron ¹ , Michel Cabassud ² , Henri Berthiaux ³ , Vadim Mizonov ³ ¹ Ecole des Mines Albi, Albi ² CNRS – INPT – UPS, Toulouse ³ ISPEU, Ivanovo	On-line quantification of the coating on aerosol nanoparticles in CVD-processes Martin Seibenbusch ¹ , Axel Binder ¹ , Frederik Weis ¹ , Gerhard Kasper ¹ ¹ Universität Karlsruhe, Karlsruhe	Oxygen Adsorption on Titanium Dioxide Particle Networks Michael J. Eiser ¹ , Nicolas Siedl ¹ , Alexander Riss ¹ , Oliver Divald ¹ ¹ Vienna University of Technology, Vienna ² Friedrich-Alexander-University Erlangen-Nuremberg, Erlangen	Automated image processing for in-situ observation and control of multiphase dispersions occurring in chemical and process engineering Sebastian Kraam ¹ , Jürgen Rohjahn ¹ , Michael Michel ¹ , Matthias Kraume ¹ ¹ University of Duisburg-Essen, Duisburg ² TU Berlin, Berlin	Luminescing silicon nanoparticles: Synthesis, surface functionalization and properties Anoop Gupta ¹ , Mark T. Swihart ² , Hartmut Wiggers ¹ ¹ University of Duisburg-Essen, Duisburg ² University at Buffalo (SUNY), Buffalo	Large-Scale Discrete Element Modeling of Gas-Solid and Solid-Liquid Flows Mikio Sakai ¹ , Yoshinori Yamada ¹ , Yusuke Shigetou ¹ , Seiichi Koshizuka ¹ ¹ The University of Tokyo, Tokyo	The residence time distribution of the gas phase in circulating fluidized beds Jan Baeyens ¹ , S. Mahmoudi ¹ , J. Degève ² , J.P.K. Seville ³ ¹ University of Warwick, Coventry ² Catholic University of Leuven, Leuven	Magnetic Metal Nanoparticles as Carrier for targeted Drug Delivery Inge Hermann ¹ , Robert Grass ¹ , Wendelin Stark ¹ ¹ ETH Zurich, Zurich
11:30	Analysis of Tribo-Electric Charging of Spherical Beads using Distinct Element Method Tatsushi Matsuyama ¹ , Enes Şupuk ² , Hossein Almadani ³ , Ali Hassanpour ⁴ , Shuji Matsusaka ⁵ , Mojtaba Ghadiri ² ¹ Soka University, Tokyo ² University of Leeds, Leeds ³ University of Leeds, Leeds ⁴ University of Leeds, Leeds ⁵ University of Leeds, Leeds	Analysis of the influence of surface roughness of globular tower particles on their flow properties and adhesion behavior Motoharu Tanaka ¹ , Hidehiro Kamiya ² ¹ Ricoh Company, Numazu-shi ² Tokyo University of Agriculture & Technology, Koganei	Interface-controlled property changes of titane nanostructures Oliver Divald ¹ , Alexander Riss ² , Michael Eiser ² , Johannes Bernardi ³ ¹ Institute of Particle Technology, Erlangen ² Institute of Materials Chemistry, Vienna ³ USTEM, Vienna	Fiber-optical inline measurement of particle size distributions in fluidized bed processes Christian Fischer ¹ , Andreas Bück ¹ , Mirko Peglow ¹ , Evangelos Tsotsas ¹ ¹ Otto-von-Guericke Universität, Magdeburg	Carbon coated metal nanoparticles prepared by reducing flame synthesis: a high performance magnetic separation technology platform Robert Grass ¹ , Inge Herrmann ¹ , Michael Rossier ¹ , Wendelin Stark ¹ ¹ ETH Zurich, Zurich	Discrete Element Study Mixing in an Industrial Sizer Mixer Andre Katterfeld ¹ , Akash Gupta ² , Stefan Luding ³ , Bastian Soeteman ⁴ ¹ Uni of Magdeburg, Magdeburg ² Indian Inst. of Technology, Kanpur ³ University of Twente, Enschede ⁴ Lindor, Dordrecht	Particle measurement sensor: in situ phase structure of fluidized bed determination Feng Jiang ¹ , Qiang Zhang ¹ , Cheng Huang ¹ , Dong Wang ¹ , Xiaobo Wei ¹ , Zhen Qian ¹ ¹ Tsinghua University, Beijing	Development of a Novel High Speed Kneading Granulation and its Application to Production of Multi-Functional Granules Satoru Watanabe ¹ , Hiroki Oishi ¹ , Takaaki Hayashi ¹ , Yoko Hara ¹ , Tomohiro Iwasaki ¹ ¹ Osaka Prefecture University, Sakai, Osaka ² Shingawa Machinery Works, Isoki-gun, Nara	
11:50	DEM investigation of the friction behaviour of multi-sphere particle models Rimantas Kacianauskas ¹ , Algis Dziugys ² , Dariusz Markauskas ³ , Robertas Navakas ⁴ ¹ Vilnius Gediminas Technical University, Vilnius ² Lithuanian Energy Institute, Kaunas	Laser Microtopography for soft materials Pascal Bruj ¹ , Christelle Tisserand ¹ , Laurent Brunel ¹ ¹ Formulation, L'Union	Enhancement of particle de-agglomeration during dissolution using agglomerate modifiers Tracy Jay ¹ , Peter Stewart ¹ ¹ Monash University, Parkville	Monitoring nano-particles in the presence of larger particles in liquids using Acoustics and Electron microscopy Andrei Dukhin ¹ , Philip Goetz ¹ ¹ Dispersion Technology, Bedford Hills	The influence of dry powder coating methods, including mechanofusion, on the flow properties of inhalable grades of lactose monohydrate David Morton ¹ , Reg Freeman ² , Tony Qi Zhou ¹ , Peter Stewart ¹ , Ian Larson ¹ ¹ Monash University, Melbourne ² Freeman Technology, Malvern	Discrete Element Method Simulation of Screw Feeders Joerg Theuerkauf ¹ , Shrikant Dhodapkar ¹ ¹ The Dow Chemical Company, Freeport-Texas	Set up of lab-scale apparatus and procedures for the characterization of attrition under circulating fluidized bed conditions Fabrizio Scala ¹ , Piero Salatino ² ¹ Istituto di Ricerca sulla Combustione – CNR, Napoli ² Università degli Studi di Napoli Federico II, Napoli	The application of advanced powder characterisation techniques to pharmaceutical Quality by Design protocols Jamie Clayton ¹ , Tim Freeman ¹ , Reg Freeman ¹ , Brian Armstrong ¹ ¹ Freeman Technology, Malvern	

Tuesday midday, April 27 th									
12:10 Lunch and Posters									
Session V	T0112: Modelling and Simulations – CFD	T0413: Multiphase Flow and Separations – Fluidisation and Fluid Beds	T0821: Interface Controlled Systems and Processes – Adhesion and Friction	T0602: Particle Characterisation	T1001: Nanoparticles	T0124: Modelling and Simulations – DEM	T0731: Grinding – Ultra fine grinding	T0501: Granulation	
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Shanghai (3)	Oslo (2)	Kopenhagen (2)	Riga (2)	
Chairs	T. Uchiyama, M. van Sint Annaland	Z. Pakic, C. Müller	O. Pakic, C. Müller	S. L. Chen, W. Witt	H.-J. Schmid	S. Luding, D. Kadav	M. C. Francis	F. Depypere, R. Boerefijn	
13:50	Multi-scale HPC system for multi-scale discrete simulation – Development and application of a supercomputer with 1 Petaflops peak performance in single precision Wei Ge ¹ , Feigu Chen ¹ , Li Guo ¹ , Xiaowei Wang ¹ , Xiaolong Yuan ¹ ¹ Institute of Process Engineering, Chinese Academy of Science, Beijing	The Role of Particle Clusters on Entrainment in Fluidized Beds Ray Cocco ¹ , Frank Shaffer ² , S.B. Reddy Karr ¹ , Roy Hays ¹ , Ted Knowlton ¹ ¹ Particulate Solid Research, Chicago ² National Energy Technology Laboratory, Pittsburgh	Capillary Forces and Diffusion Kinetics Yakov Rabinovich ¹ , Scott Brown ¹ , Amit Singh ¹ , Brj Moudgil ¹ ¹ University of Florida, Gainesville	Standards in Laser Diffraction: The Picket Fence Distribution Wolfgang Witt ¹ , Thomas Stübinger ¹ , Jens Jordan ¹ ¹ Sympatec, System-Partikel-Technik, Clausthal-Zellerfeld	Cancelled	Generation of nanoparticles by wood combustion in stoves and particle control Andrei Bolaga ¹ , Hans-Rudolf Paur ¹ , Helmut Seifert ¹ , Klaus Woletz ¹ ¹ Forschungszentrum Karlsruhe, Eggenstein-Leopoldshafen	DEM Simulations of Bender Elements Tests on an Ideal Granular Material Catherine O'Sullivan ¹ , Stanislas Clement ¹ ¹ Imperial College London, London	Mechanisms of nanogrinding Catharina Kneke ¹ , Stefan Romeis ¹ , Wolfgang Peukert ¹ ¹ Institute of Particle Technology, Erlangen	Assessment of microparticle coating quality and functionality Frédéric Despates ¹ , Katarzyna Niemiłowska ¹ , Giacomo Perletti ¹ , Gabriele Meesters ¹ , Koen Dewettinck ¹ ¹ Ghent University, Ghent ² Delft University of Technology, Delft
14:10				Laser-Diffraction Results from Dynamic Image Analysis Data Ulrich Köhler ¹ , Thomas Stübinger ¹ , Joachim List ¹ , Wolfgang Witt ¹ ¹ Sympatec, System-Partikel-Technik, Clausthal-Zellerfeld	SrGa254: Eu nanoparticle phosphors prepared by a ball milling method Masakazu Kobayashi ¹ , Sayako Hamaguchi ¹ , Takuma Yamamoto ¹ ¹ Waseda University, Shinjuku, Tokyo	Calibration of DEM Material Models to Approximate Bulk Particle Characteristics John Favier ¹ , David Curry ¹ , Richard LaRoche ¹ ¹ DEM Solutions, Edinburgh		Intensive Granulation in Powder Coating Production Bandara Dissanayake ¹ , Andy Morgan ² , Galip Akay ¹ ¹ Newcastle University, Newcastle upon Tyne ² AkzoNobel Powder Coatings, Gateshead	
14:30	Improvement of three-phase flow numerical simulations by means of novel hybrid methods Lucia Diez ¹ , Cornelia Rauh ¹ , Antonio Delgado ¹ ¹ Institute of fluid mechanics, Erlangen	Influence of Fines on Fluidized Bed Behaviour Naoko Eiji ¹ , Ruid van Ommen ¹ ¹ Delft University of Technology, Delft ² University of British Columbia, Vancouver	Control of particle cohesion by the thermal modification of surface properties Jonathan Bouffard ¹ , François Bertrand ¹ , Jamal Chaouki ¹ ¹ École Polytechnique de Montréal, Montréal	Laser Diffraction for Particle Size Analysis at Absolute Precision Wolfgang Witt ¹ , Thomas Stübinger ¹ , Joachim Köhler ¹ , Joachim List ¹ ¹ Sympatec, System-Partikel-Technik, Clausthal-Zellerfeld	Particle precipitation correlated with jet fluid-dynamics and phase equilibria in the supercritical antisolvent process Andreas Brauer ¹ , Enza Torino ² , Stefan Dowd ³ , Ernesto Reverchon ⁴ ¹ Erlangen Graduate School in Advanced Optical Technologies, Erlangen ² Uni of Salerno, Fisciano ³ LS für Tech. Thermodynamik und SAOT, Erlangen	From particle simulations to nanoscopic constitutive relations Fatih Göncü ¹ , Stefan Luding ¹ ¹ University of Twente, Enschede	Enabling novel drug delivery therapies by nanomilling of APIs: Acceleration of preclinical and clinical pharmaceutical development using a screening approach Michael Juhnke ¹ , Jörg Berghausen ¹ , Carsten Timpe ¹ ¹ Novartis Pharma, Basel	Effect batch size on tablet properties Agba D. Salman ¹ , Chirangano Mangwandi ¹ , Mike, J. Adams ¹ , Michael, J. Hounslow ¹ ¹ The University of Sheffield, Sheffield ² University of Birmingham, Birmingham	
14:50	Modelling the wet scrubbing process with increasing levels of complexity Christoph Goniva ¹ , Christoph Fellmayr ² , Thomas Burgler ³ , Stefan Pirker ¹ ¹ JKU Linz, Linz ² voestalpine Stahl, Linz	On the extension of the theory of fluidization to beds of two solids subjected to segregation by density or size Brunello Formisani ¹ , Rossella Girimonte ¹ , Vincenzino Vivacqua ¹ ¹ Università della Calabria, Arcavacata di Rende (Cosenza)	Nanoscale Friction and Wear of Metallic Microparticles Michael Kappel ¹ , Xing Ling ¹ ¹ Max-Planck-Institut für Polymer Research, Mainz	Particle Characterization with Digital Image Processing in a size range from a few microns to a few millimeters Gert Beckmann ¹ ¹ Retsch Technology, Haan	Nanoparticle separation from rising bubbles in aqueous solutions Alfred Weber ¹ , Maik Hermeling ¹ ¹ Institute of Particle Technology, Clausthal-Zellerfeld	Implementation of comminution functions in jet-mill DEM simulation Tahir Brosh ¹ , Avi Levy ¹ , Haim Kalman ¹ , Francois Ricard ¹ , Isabelle Peyron ¹ ¹ Ben-Gurion University of the Negev, Beer-Sheva ² GlaxoSmithKline, Stevenage ³ GlaxoSmithKline, Evreux	Effects of operating parameters on product quality in stirred media mills for production of nanoparticles M. Asif Inam ¹ , Christine Frances ¹ , W.J. Wildeboer ² , G.M.H. Meesters ³ ¹ Laboratoire de Génie Chimique (CNRS/INPT/UPS UMR 5075), Toulouse ² University of Queensland, Brisbane ³ Purdue University, West-Lafayette, DSM, Delft	Particle impact experiments for validation of agglomeration penetration regime map Martijn van der Hoeven ¹ , Tony Howes ¹ , Jim Litster ¹ , Ian Cameron ¹ , Gabriele Meesters ¹ , Hans Wildeboer ³ ¹ University of Queensland, Brisbane ² Purdue University, West-Lafayette ³ DSM, Delft	
15:10	Numerical Investigation of the 3-D Unsteady Reactive Flow within a Gas Dynamic Particle Reactor Nisar S. Al-Hasan ¹ , Marcus Gijgmaier ¹ , Günther H. Schnerer ¹ ¹ Lehrstuhl für Fluidmechanik – Fachgebiet Gasdynamik, Garching	The solids flow in the riser of a CFB viewed by positron emission particle tracking (PEPT) Jan Baeyens ¹ , C.W. Chan ¹ , J.P.K. Seville ¹ , D. Parker ¹ ¹ University of Warwick, Coventry ² University of Birmingham, Birmingham	Adhesion of SiO ₂ particles and particle systems on ceramic membranes Tobias Quadt ¹ , Eberhard Schmidt ¹ ¹ University of Wuppertal, Wuppertal	High concentration zeta potential measurement using laser light scattering Fraser McNeil-Watson ¹ , Jason Corbett ¹ , Paul Kippax ¹ , David Strickland ¹ , Michael Kaszuba ¹ , Andrew Jones ¹ ¹ Malvern Instruments, Malvern	Filtration of nanoparticles: Evolution of cake structure and pressure-drop Tobias D. Elmoe ¹ , Antonio Tricoli ² , Jean-Dirk Grundwald ¹ , Sotiris E. Pratsinis ² ¹ Technical University of Denmark, Lyngby ² ETH Zurich, Zurich	Numerical and experimental study of the effect of multiple spouts on the flow fluidized bed dynamics Maureen van Buijtenen ¹ , Niels G. Deen ¹ , J.A.M. Kuipers ¹ ¹ University of Twente, Enschede	Stability of particle suspensions after fine grinding Stephen Hennart ¹ , P van Hee ¹ , W.J. Wildeboer ² , G.M.H. Meesters ¹ ¹ DSM Food Specialties, Delft ² DSM, Delft	Numerical Analysis of Single Granule Topography Data Sets R.P.J. Sochon ¹ , D. Barrera-Medrano ² , A.D. Salman ¹ , M.J. Hounslow ¹ ¹ University of Sheffield, Sheffield ² University of Sheffield, Sheffield ³ BASF, Ludwigshafen	

Tuesday afternoon, April 27 th									
Session VI	T0102: Modelling and Simulations	T1103: Nanoparticles – Production and Functionalization via Liquid Routes	T1023: Nanoparticles – Production and Functionalization via Gas Phase Routes	T0611: Particle Characterisation – Equipment	T0901: Bulk Solids	T1121: Science and Engineering of Particulate Materials – Particle-based devices	T0451: Multiphase Flow and Separations – Solid-Gas Separations	T0512: Granulation – Wet Granulation	
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Shanghai (3)	Oslo (2)	Kiew (2)	Kopenhagen (2)	
Chairs	S. Horender, M. van der Hoeven	A. P. Schaeffgen, Silvia Ilea	A. Schmidt-Ott, W. Witt	T. Koch, R. Davies	D. A. V. Morton	L. Mäder, Y. Mori	A. Paterson, Y. Tsuchida	A. Salman, P. Avontuur	
16:00	Modelling confined compression and compaction of granular materials Göran Frénning ¹ ¹ Uppsala University, Uppsala	Cerium-doped yttrium aluminum garnet phosphor nanofibers prepared by electrospinning and its properties Adi Bagus Suryamas ¹ , Muhammad Miftahudin ¹ , Ferris Iskandar ¹ , Kikuo Okuyama ¹ ¹ Hiroshima University, Higashi Hiroshima	Experimental results of nanoparticle production by shock-induced synthesis Alexander Weiss ¹ , Andreas Grzono ¹ , Herbert Olivier ¹ , Thomas Gawehns ¹ , Ali Gülhan ² ¹ Shock Wave Laboratory, Aachen ² Institute of Aerodynamics and Flow Technology, Wind Tunnels, Köln	Towards the optimum detector for wide dynamic range laser diffraction measurements Anne Virden ¹ , Nigel Lightfoot ¹ , Paul Kippax ¹ , David Strickland ¹ , Alan Rawle ¹ ¹ Malvern Instruments, Malvern	Novel Plasma Device for Particle Surface Modification at Atmospheric Pressure Patrick Reichen ¹ , Axel Sonnenfeld ¹ , Philipp Rudolf von Rohr ¹ ¹ Institute of Process Engineering, Zurich	Silicon nano-particles: production and application to novel Li-Ion battery negative electrodes David Munao ¹ , Mario Valvo ¹ , Philipp Rudolf von Rohr ¹ , Erik Kelder ¹ ¹ Delft University of Technology, Delft	Characterisation of the clogging behaviour of cleanable filter media Josef Schuberth ¹ , Gerd Mauschtitz ¹ , Wilhelm Höllinger ¹ ¹ Institute of chemical engineering, Vienna	Effect of Binder Interaction with Water on Granulation and Granule properties in High Shear Wet Granulation Jinjiang Li ¹ , Mario Hubert ¹ , Li Tao ¹ , David Buckley ¹ , Zhuhui Gao ¹ ¹ Bristol-Myers Squibb, North Brunswick	
16:20	Predicting properties of binary mixtures for a finite element model of pharmaceutical powder compaction Tuhin Sinha ¹ , Jennifer Sinclair Curtis ² , Carl Wassgren ³ , Bruno C. Hancock ³ ¹ Purdue University, West Lafayette ² University of Florida, Gainesville ³ Pfizer, Groton	Synthesis of Pore Size- and Outer Diameter-Controllable Mesoporous Silica Nanoparticle using a Novel Water/Oil-Phase Technique Kikuo Okuyama ¹ , Asep Bayu Dami Nandiyanto ¹ , Ferry Iskandar ¹ ¹ Hiroshima University, Higashi Hiroshima	Experimental Study of Shock-induced Nanoparticle Growth Verena Goertz ¹ , Hermann Nirschl ¹ ¹ Karlsruher Institut für Technologie (KIT), Karlsruhe	Automated Image Analysis – Particle characterisation beyond size and a reference technique for particle size measurements Deborah Huck ¹ , Ulf Willén ¹ , Carl Levoguer ² , Anders Tomrcona ³ , Steve Ward-Smith ⁴ ¹ Malvern Instruments, Worcestershire ² Eika Chemicals, Bohus	Clarification of Significant Mechanisms for Dust Suppression with Water Sprays in Enclosed Bulk Solid Systems Jörg Faschingleitner ¹ , Wilhelm Höllinger ¹ , Gerd Mauschtitz ¹ ¹ Institute of Chemical Engineering, Vienna	Co-synthesis of LiMn ₂ O ₄ and carbon electrodes for high power batteries Robert Büchel ¹ , Oliver Waser ¹ , Timothy J. Patey ² , Petr Novak ² , Sotiris E. Pratsinis ³ ¹ ETH Zurich, Zurich ² Paul Scherrer Institut, Villigen ³ Technical University of Denmark, Lyngby	On the modelling of wall roughness and wall structure in pneumatic conveying and cyclone separation Dami Kahrmanovic ¹ , Georg Aichinger ¹ , Stefan Pirker ¹ ¹ Christian-Doppler Laboratory on Particulate Flow Modelling, Linz ² Siemens VAI Metals Technologies, Linz	Affinity of powders to binder droplets in high shear granulation Martijn van der Hoeven ¹ , Kees van der Voort Maarschalk ¹ , Erik Frijlink ¹ , Erik Gout ¹ ¹ Novartis Pharma, Basel ² Chering-Plough, Oss ³ University of Groningen, Groningen	
16:40	Comparison of the Discrete Element Method with a Finite Volume Approach for Predicting Bulk Flows and for Designing Silos Sebastian Schmidt ¹ , Arnulf Latz ¹ , Dariusz Niedziela ¹ , Rouven Weiler ¹ , Siegfried Ripperger ¹ ¹ Fraunhofer ITWM, Kaiserslautern ² University of Kaiserslautern, Kaiserslautern	Nanoscale Hollow Spheres – A novel Materials Morphology, its Properties and Application Claus Feldmann ¹ ¹ University of Karlsruhe (TH), Karlsruhe	Pilot scale production of silicon nanoparticles by a laser pyrolysis process Jan van Erven ¹ , David Munao ¹ , Zhao Fu ¹ , Tomasz Trzeciak ² , Erik Kelder ¹ , Jan C.M. Marijnissen ¹ ¹ TU Delft, Delft ² University of Exeter, Exeter	Innovations in Dynamic Image Analysis: Down to 1 µm Joachim List ¹ , Ulrich Köhler ¹ , Wolfgang Witt ¹ ¹ Sympatec, System-Partikel-Technik, Clausthal-Zellerfeld	A Study on Anti-seismic Design of Silo Group using 3-D Dynamic Finite Element Analysis Jun Yoshida ¹ , Hiroyuki Ebihara ² , Koichi Ichimura ² , Hiromitsu Koshida ³ ¹ Ohlshi Research Institute, Tokyo ² Nissin Engineering, Tokyo ³ Yokogawa Techno-Information Service, Chiba	Direct Synthesis and Deposition of Nano-Electrodes Antonio Tricoli ¹ , Sotiris E. Pratsinis ¹ ¹ Particle Technology Laboratory, Zurich	Effects of Post-coating by Generating a Thin Secondary Particle Layer on Surface Filters for Dust Separation Qian Zhang ¹ , Eberhard Schmidt ¹ ¹ University of Wuppertal, Wuppertal	Optimization and Scale-up of High Shear Wet Granulation Processes Using FBRM® and PVM® In Situ Particle Characterization Benjamin Smith ¹ , Zane Arp ¹ , Thomas Vermeire ¹ , Eric Dycus ¹ , Ian Haley ¹ ¹ METTLER TOLEDO, Columbia ² GlaxoSmithKline, King Of Prussia ³ IGEA Pharma Systems, S-Hertogenbosch	
17:00	Modelling of Gas-Solid Flows in Packed Beds Wei Yang ¹ , Paal Skjeltne ¹ ¹ SIATEF Materials & Chemistry, Chemical Engineering Group, Trondheim	Formation of Core-Shell-Nanoparticles using High Pressure Homogenisation Lena Hecht ¹ , Heike Petra Schuchmann ¹ , Caroline Wagner ¹ , Katharina Landfester ² ¹ University of Karlsruhe, Karlsruhe ² Max-Planck-Institut für Polymerforschung, Mainz	Gas-phase synthesis of highly-specific nanoparticles on the pilot-plant scale Tim P. Hülsler ¹ , Sophie Marie Schürne ¹ , Hartmut Wiggers ¹ , Christof Schultz ¹ ¹ Institute for Energy and Environmental Technology (IUT), Duisburg ² University Duisburg-Essen, Duisburg	Attrition Shearing of Granules Using Rotating Rollers: Experimental Study and DEM Simulation Hossein Ahmadian ¹ , Mojtaba Ghadiri ¹ , Stephen Wiche ¹ ¹ University of Newcastle, Callaghan	Hoop Stress Theory Applied to Funnel-Flow and Live Capacity Determinations of Gravity Reclaim Stockpiles Alan Roberts ¹ , Tobias Krull ¹ , Stephen Wiche ¹ ¹ University of Newcastle, Callaghan	Silica-coated Ag nanoparticles by flame spray pyrolysis Georgios A. Sotiriou ¹ , Sotiris E. Pratsinis ¹ ¹ ETH Zurich, Zurich	Use of colloidal gas aphanors for separation of water based printing inks and impurities from paper stock suspensions Jens Bömer ¹ , Dennis Voß ¹ , Samuel Schabel ¹ ¹ Paper Technology and Mechanical Process Engineering, Darmstadt	Foam Granulation: liquid drainage or mechanical dispersion? Melvin Tan ¹ , Karen Haggood ¹ ¹ Monash University, Victoria	
17:20	Wave Motion in Granular Materials: a Comparison of Discrete and Continuum Models Chris Wensrich ¹ , Richard Stratton ¹ , Roberto Moreno-Atanacio ¹ ¹ University of Newcastle, Callaghan	Shell microstructures of nano-sized hollow silica particles synthesized by an inorganic particle template method Hideo Watanabe ¹ , Masayoshi Fujii ¹ , Takashi Shirai ¹ , Minoru Takahashi ¹ ¹ Nagoya Institute of Technology, Tajimi	Production of single walled carbon nanotubes in a fluidized bed reactor using FeMgAl layered double hydroxides Fei Wei ¹ , Meng-Qiang Zhao ¹ , Qiang Zhang ¹ , Jia-Qi Huang ¹ ¹ Tsinghua University, Beijing	SEM Supported Manipulation and Compression of Micro- and Nanoparticles Thomas Koch ¹ , Stefan Romeis ¹ , Patrick Armstrong ¹ , Wolfgang Peukert ¹ ¹ Institute of Particle Technology, Erlangen	Extrusion of Unsaturated Powders: Impact of System Parameters on Stress Fields Tim O. Althaus ¹ , Erich J. Windhab ¹ ¹ Laboratory of Food Process Engineering, Zurich	Synthesis and characterization of hybrid PNIPAM-silica microcapsules prepared by inverse Pickering emulsion polymerization Jitka Krivkova ¹ , Nina Savasova ¹ , Frantisek Stepanek ¹ ¹ Institute of Chemical Technology Prague, Prague	Scaling Law in Performance of a New Accurate High-throughput Triple-pot Classification System using Almost Rigidly Rotating Flow Yoshiki Tsuchida ¹ , Mikitaka Saba ² , Akira Hirose ¹ ¹ Nagoya Institute of Technology, Nagoya ² NTN Corporation, Kuwana	Continuous Granulation of Pharmaceutical Powder Using Twin Screw Extruder Kai Lee ¹ , Andy Ingram ¹ , Neil Rowson ¹ ¹ University of Birmingham, Birmingham	

Wednesday morning, April 28th

9:00 Plenary Session I – Room Tokio – Chair A. Schmidt-Ott
Keynote lecture: Lidia Morawska, Queensland University of Technology: Is man or nature engineering indoor particles?

10:00 Coffee Break – Set up posters

Session VII	T1025: Modelling and Simulations – DEM	T1002: Nanoparticles	T1023: Food/Pharma/Life Science Applications	T0131: Modelling and Simulations – PBE	T0401: Multiphase Flow and Separations	T0911: Bulk Solids – Powder Testing	T1101: Science and Engineering of Particulate Materials	T1301: Other	
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Hongkong (1)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)
Chairs	C. O'Sullivan R. Smith	A. Tricoli A. Schmidt-Ott	H. P. Schuchmann	S. Schmidt C. Wensrich	B. Fornisani	A. Babitskiy D. Schulze	D. Volmer H.-J. Schmid	G. Rideal	
10:30	Analysis of Particle Motion in a Paddle Mixer: a Comparison between DEM Simulation and PEPT Measurement Ali Hassanpour ¹ , Hongsing Tan ² , Andrew Baij ³ , Prasad Gopalkrishnan ⁴ , Mojtaba Ghadiri ⁵ ¹ University of Leeds, Leeds, ² PSG Technical Centre, Newcastle Upon Tyne, ³ PSG, Cincinnati	Synthesis of Nano-sized Hollow Calcium Silicate Particles by Template Method Assisted with Hydrothermal Treatment Raymond V Rivera Virtudazo ¹ , Hideo Watanabe ² , Takashi Shirai ³ , Masayoshi Fujii ⁴ , Minoru Takahashi ⁵ ¹ Nagoya Institute of Technology, ² Tajimi ³ Delft University of Technology, ⁴ Delft	Lactose Activation by Electro-spraying for Dry Powder Inhalers J. Ruud van Ommen ¹ , Miguel A. Tavares Cardoso ² , Mojan Talebi ³ , Cander U. Yurteri ⁴ ¹ Delft University of Technology, ² Delft	Description of particle formation in fluidized beds with a stochastic modelling method Mathias Demeedt ¹ , Andreas Bückl ² , Mirko Peglow ³ , Evangelos Tsotsas ⁴ ¹ Thermal Process Engineering, Magdeburg	Using Particle Image Velocimetry to Study Particles Inside a Spray Dryer Guy Hassall ¹ , Mark Simmons ² , Carlos Amador ³ , Andrew Baij ⁴ , Prasad Gopalkrishnan ⁵ ¹ University of Birmingham, Birmingham, ² University of Newcastle, Newcastle-Upon-Tyne	Round Robin Test on Ring Shear Testers Dietmar Schulze ¹ ¹ University of Applied Sciences Braunschweig/Wolfenbüttel, Wolfenbüttel	Reactive nanoparticles for reconstructive bone surgery and dental applications Dirk Mohn ¹ , Oliver Schneider ² , Wendelin Stark ³ ¹ ETH Zurich, Zurich	Characterization of bismuth vanadate (BiVO ₄) micropowder synthesized from a low temperature hydrothermal method Pusit Pookmanee ¹ , Sumintra Paosom ² , Sukon Phanchiphant ³ ¹ Maajo University, Chiang Mai, ² Chiang Mai University, Chiang Mai	
10:50	Coupled DEM-CFD simulation of a Wurster coater Lennart Fries ¹ , Sergiy Antonyuk ² , Stefan Heinrich ³ , Stefan Palzer ⁴ ¹ Hamburg University of Technology, Hamburg, ² Nestlé Research Center Vers-Chez-Les-Blanc, Lausanne	The effect of Ca addition to Fe/Zn oxides made by flame spray pyrolysis for nutritional applications Jesper Klintjens ¹ , Alexandra Teleki ² , Florentine M. Hilty ³ , Richard F. Hurrell ⁴ , Michael B. Zimmermann ⁵ , Sotiris E. Pratsinis ⁶ ¹ Particle Technology Laboratory, Zurich, ² Human Nutrition Laboratory, Zurich	Enzyme degradation due to mechanical impact Sonja Simon ¹ , Wolfgang Peukert ² ¹ Institute of Particle Technology, Erlangen	Modelling of fluidized bed drying using population balance equations Miko Peglow ¹ , Ulf Cunaus ² , Evangelos Tsotsas ³ , Thomas Metzger ⁴ ¹ Otto-von-Guericke Universität Magdeburg, Magdeburg	Influence of drainage flow and holdup on the separation behaviour of mist separators Thomas Laminger ¹ , Wilhelm Höflinger ² ¹ Institute of Chemical Engineering, Vienna	Glass Transition Behaviour of Corn Dried Distillers Grains with Solubles (DDGS) Rose Prabin Kingsly Ambrose ¹ , Klein Iliel ² ¹ Purdue University, West Lafayette	Design and Fabrication of Nanostructured Particles with Tailored Optical Properties Robin Klupp Taylor ¹ , Monica Distaso ² , Volodymyr Lobaz ³ , Olexandr Zhurumskyi ⁴ , Franitsek Seifert ⁵ , Dina Ibragimova ⁶ , Andreas Hirsch ⁷ , Günter Leugering ⁸ , Ulf Peschel ⁹ , Wolfgang Peukert ¹⁰ ¹ University of Erlangen-Nuremberg, Erlangen	Surface modification of carbon and silicon carbide nanoparticles for their improvement of dispersion stability in liquid media Motoyuki Iijima ¹ , Chihiro Inuma ² , Wuled Lenggoro ³ , Hidehiro Kamiya ⁴ , Tokyo University of Agriculture and Technology, Kagane	
11:10	Intra-particle Coating Variation: Analysis and DEM Simulation Ben Freireich ¹ , Carl Wassgrett ² ¹ Purdue University, West Lafayette, Indiana	Highly magnetic nanocomposite actuator for artificial muscle applications Roland Fuhrer ¹ , Evagelos K. Athanassiou ² , Norman A. Luechinger ³ , Wendelin J. Stark ⁴ ¹ ETH Zurich, Zurich	Long-term stability of nano ground suspensions Carola Steinborn ¹ , Sandra Breitung-Faes ² , Arno Kwade ³ ¹ Institute for Particle Technology, Braunschweig	Evolution of moisture content distribution during fed-batch fluidized-bed drying Bernardus J Niltner ¹ , Michael J Hounslow ² ¹ The University of Sheffield, Sheffield	Imaging particulate multiphase flow with Electric Impedance Tomography Pedro Faia ¹ , Rui Silva ² , Maria da Graça Rasteiro ³ , Antonio Ferreira ⁴ , Jaime Santos ⁵ , Manio Santos ⁶ , Fernando Garcia ⁷ , Paulo Coimbra ⁸ ¹ University of Coimbra, Coimbra	Anisotropic consolidation behaviour of cohesive powders Thomas Ittershagen ¹ , Harald Zetzener ² , Jörg Schwedes ³ , Arno Kwade ⁴ ¹ Institute for Particle Technology, Braunschweig	Application of t-matrix methods to the simulation of the optical properties of complex particles and particle ensembles Oleksandr Zhurumskyi ¹ , Robin Klupp Taylor ² , Ulf Peschel ³ , Wolfgang Peukert ⁴ ¹ Institute of Optics, Erlangen, ² Institute of Particle Technology, Erlangen	Development of New Particle Size Analysis Standards Graham Rideal ¹ , Jamie Storey ² , Abigail Stewart ³ ¹ Whitehouse Scientific, Chester	
11:30	Numerical study of compaction of a wet coarse particles Runyu Yang ¹ , Mengxi Wang ² , Ruiqing Zou ³ , Aibing Yu ⁴ ¹ University of New South Wales, Sydney	Photocatalytic Nanocomposite Coatings for Disinfection on Surfaces Brij Moudgil ¹ , Vijay Krishna Reddy Indeglia ² , Benoit L. Boudry ³ ¹ University of Tennessee, Knoxville	Selecting a spectroscopic approach for the chemical analysis of pharmaceutical tablets Ulf Willen ¹ , Lisa Makein ² , Carl Levoguer ³ ¹ Malvern Instruments, Malvern	Population Balance Modelling of Precipitation in Turbulent Flows: the Transported PBE-PDF Formulation Stelios Rigopoulos ¹ , Giovanni Di Veroli ² ¹ The University of Manchester, Manchester	Understanding the links between Reheating and Particle Parameters John Duffy ¹ , Adrian Hill ² ¹ Malvern Instruments, Malvern	Drop test: a new method to measure the adhesion force between particles Umar Zafar ¹ , Ali Hassanpour ² , Rajan Talati ³ , Peyman Zoroufchian-Moghadam ⁴ , Mojtaba Ghadiri ⁵ ¹ University of Leeds, Leeds, ² University of Edinburgh, Edinburgh	Functionalisation of magnetic nanoparticles for protein purification Ilka-Marina Grabs ¹ , Georg Garmwetter ² ¹ Institute for Particle Technology, Braunschweig	Dispersion of Carbon Black Powder by a Bead-mill and Optimization Yasuhiro Yamamoto ¹ , Rikio Soda ² , Junya Kano ³ , Fumio Saito ⁴ ¹ Mitsui Color, Himeji, Hyogo, ² IRAM, Sendai, Miyagi	
11:50	Restructuring and Fragmentation of Agglomerates in Shear Flows Max L. Eggersdorfer ¹ , Dirk Kadau ² , Hans J. Herrmann ³ , Sotiris E. Pratsinis ⁴ ¹ Particle Technology Laboratory, Zurich, ² Computational Physics of Engineering Materials, Institute of Zurich	A New Particle Based Gas Sensor Concept Applied to Hydrogen George Biskos ¹ , Peter Kovacic ² , Andreas Schmidt-Ott ³ ¹ Particle Technology of Oxford, Oxford, ² Delft University of Technology, Delft	Monodisperse droplets generation by high viscosity inkjet R.J. Houben ¹ , K.J.C van Bommel ² , A.T. Poortinga ³ , J.M. Vollenbroek ⁴ ¹ TNO Science & Industry, Eindhoven, ² Friesland Campina Kievit, Meppel, ³ FrieslandCampina Research, Deventer	Computational Study of Liquid Distribution in an Air Fluidized Bed using a Single Particle Surface Coverage Fraction Rachel Smith ¹ , Graham Calvert ² , Ali Hassanpour ³ , Colin Hare ⁴ , Yujing Feng ⁵ , Karen Hapgood ⁶ , Mojtaba Ghadiri ⁷ ¹ Monash University, Melbourne, ² University of Leeds, Leeds, ³ CSIRO, Melbourne	Optimization of Fe-Al-Ce nano-adsorbent granulation by spray-coating in a fluidized bed for fluoride removal from drinking water Lin Chen ¹ , Hai-Xia Wu ² , Ting-Jie Wang ³ , Yong Jim ⁴ ¹ Singhua University, Beijing	Effect of Sample Amount on Particle Flowability Evaluation Based on Vibration Tube Method Shuji Matsusaka ¹ , Katsunori Ishii ² , Masahiro Suzuki ³ , Tomomi Segawa ⁴ , Yoshiyuki Kihara ⁵ , Masatoshi Yasuda ⁶ ¹ Yokyo University, Kyoto, ² Japan Atomic Energy Agency, Ibaraki, ³ IMP, Nara	Small, smaller, nano – laboratory mills for micro and nano grinding Andreas Theissen ¹		

Wednesday midday, April 28th

12:10 Lunch and Posters

Session VIII	T1122: Science and Engineering of Particulate Materials – Particle-based devices	T1014: Nanoparticles – Production and Functionalization via Liquid Routes	T0603: Particle Characterisation	T0541: Granulation – Simulation and Control	T0414: Multiphase Flow and Separations – Fluidisation and Fluid Beds	T1204: Food/Pharma/Life Science Applications	T0113: Modelling and Simulations – CFD	T0921: Bulk Solids – Flow of Powders	
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Hongkong (1)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)
Chairs	H. Yang W. Hintz	H. Yang W. Hintz	M. Seipenbush D. Petrak	S. Heinrich A. Hassanpour Rudbari	R. Cocco E. Wei	J. A. M. Kuipers L. M. Verweij	K. D. J. Diez	K. D. Johanson L. M. Verweij	
13:50	Rapid Synthesis of TiO ₂ and SiO ₂ Nanostructures for Anti-Fogging Coatings Antonio Tricoli ¹ , Marco Righettoni ² , Sotiris E. Pratsinis ³ ¹ Particle Technology Laboratory, Zurich	Surface-modification of Silica-particles by nano-scaled Titania-particles via Sol-Gel-Process Werner Hintz ¹ , Sebastian Kleinschmidt ² , Veselina Yordanova-Bineva ³ , Jürgen Tomas ⁴ ¹ Otto-von-Guericke University Magdeburg, Magdeburg	Studies on colloidal interactions in non-polar media Jochen Schmidt ¹ , Thomas Koch ² , Wolfgang Peukert ³ ¹ Institute of Particle Technology, Erlangen	Model-based Analysis and Design of Pharmaceutical Fluid Bed Granulation Frantisek Stepanek ¹ , Pavol Rajniak ² ¹ Merck, Inc., West Point, ² Institute of Chemical Technology, Prague	Fluidization of nanoparticles in a micro-jet assisted fluidized bed reactor J. Ruud van Ommen ¹ , David King ² , Robert Pfeffer ³ , Alan Weimer ⁴ , Mojtaba Ghadiri ⁵ ¹ Delft University of Technology, Delft, ² Arizona State University, Tempe	Adhesion forces between water soluble particles Stefan Palzer ¹ , Stefan Heinrich ² , Sergiy Antonyuk ³ , Lennart Fries ⁴ ¹ University of Colorado, Boulder, ² Nestlé Research Centre, Lausanne, ³ Hamburg University Hamburg-Harburg, Hamburg	Modelling pneumatic conveying and hopper discharge using the discrete element method Simon Lo ¹ , Vikrant Singh ² ¹ CD-adapco, Didcot	Assessing Flowability of Cohesive Powders from a Small Sample Quantity Massih Pashaj ¹ , Ali Hassanpour ² , Mojtaba Ghadiri ³ ¹ Institute of Particle Science and Engineering, Leeds	
14:10	Supercritical Hydrothermal Synthesis of Organic-Inorganic Hybrid Nanoparticles-Towards Superhybrid Nanomaterials- Tadafumi Adschiri ¹ ¹ WPI-Advanced Institute for Materials Research, Sendai	Speaker: Kano Junya	Multicomponent Population Balance Modeling of Granulation with Continuous Addition of Binder Pavol Rajniak ¹ , Themis Matsoukas ² , Carl Marshall Jr. ³ ¹ Merck, West Point, ² The Pennsylvania State University, University Park	Microstructure Modeling and Simulation of Nanoparticle Deposition Kilian Schmidt ¹ , Andreas Wiegmann ² , A. C. Bertham ³ , Jim Litster ⁴ , E. T. White ⁵ , Tony Howes ⁶ ¹ TU Kaiserslautern, Kaiserslautern	Flowability of Binary Mixtures of Ibuprofen and Lactose Lian X. Liu ¹ , Ivan Marziano ² , A. C. Bertham ³ , Jim Litster ⁴ , E. T. White ⁵ , Tony Howes ⁶ ¹ University of Queensland, Brisbane, ² Pfizer Sandwich, Sandwich, ³ Purdue University, West Lafayette				
14:30	Low-Temperature Fabrication of Functional Thin Films from Nanoparticle Dispersions Georg Garmwetter ¹ ¹ TU Braunschweig, Braunschweig	Laser ablation of corundum in liquid phase for an efficient generation of stabilized dispersed nanoparticle colloids Ramin Sattari ¹ , Csaba László Sajti ² , Xulia Fidalgo Naveira ³ , Stephan Barcikowski ⁴ ¹ Laser Zentrum Hannover, Hannover	Effect of solution concentration on the precipitation of paracetamol particles in the supercritical antisolvent process Stefan Downy ¹ , Andreas Brauer ² , Matthias Pemsel ³ , Matthias Rossmann ⁴ , Eberhard Schluucker ⁵ , Alfred Leipertz ⁶ ¹ Friedrich-Alexander University Erlangen, Erlangen, ² Erlangen Graduate School in Advanced Optical Technologies, Erlangen	Analysis of various granulation process structures by dynamic flow-sheet simulation of solids processes Maksym Dosta ¹ , Stefan Heinrich ² , Matthias Pogodda ³ , Claus Reimers ⁴ ¹ Hamburg University of Technology, Hamburg, ² SolidSim Engineering, Hamburg	Fluidization and Mixing of Nanoparticles using Magnetic Impaction Assistance Daniel Legak ¹ , Rajesh Dave ² , James Scicolone ³ , Lin Louie ⁴ , Fernando Rivas ⁵ ¹ The Cooper Union, New York, ² New Jersey Institute of Technology, Newark	Visualization and analysis of polymer film coating thickness, shell structure, uniformity and surface morphology of coated pellets using X-Ray Micro Tomography and Image Analysis Giacomo Perletti ¹ , Elke van de Castelele ² , Bernd Rieger ³ , Gabriele M.H. Meesters ⁴ ¹ Delft University of Technology, Delft, ² SkyScan, Kontich, ³ DSM Food Specialties, Delft	Multi-scale modelling and experimental measurements of soot filtration in diesel particulate filters Samir Bensaïd ¹ , Debora Fazio ² , Daniele Marchisio ³ , Nunzio Russo ⁴ ¹ Politecnico di Torino, Torino	Polymorphism driven caking of an active pharmaceutical ingredient (API) powder Edgar John ¹ ¹ Novartis Pharma, Basel	
14:50	Highly Efficient Nano-Silver Composites Enable Self-Disinfecting Polymer Lukas Cyril Gerber ¹ , Dirk Mohn ² , Wendelin Jan Stark ³ ¹ ETH Zurich, Zurich	Development and characterization of new sampling devices for cohesive systems Laura Susana ¹ , Andrea Santomaso ² , Paolo Canu ³ ¹ University of Padova, Padova	Parameter and uncertainty estimation for a multivariate granulation model using a projection method Andreas Braumann ¹ , Peter Man ² , Markus Kraft ³ ¹ University of Cambridge, Cambridge	Hydrodynamic study of a cylindrical flat-bottom spouted bed using Magnetic Resonance Imaging Kustaf Müller ¹ , Daniel Holland ² , Andrew Sederman ³ , Lynn Gladden ⁴ , John Dennis ⁵ ¹ University of Cambridge, Cambridge	Influence of cell lyses and flocc size on filtration performance of fermentation broth Pim van Hee ¹ , Martin Stefanov ² , Johan Vente ³ , Sandjai Sandjopeersad ⁴ , Arthur Janse ⁵ , Gabriele Meesters ⁶ ¹ DSM Food Specialties, Delft	Experimental and CFD Investigation of the Deposition Behaviour of Dairy Powders Songxin Zhao ¹ , Michael Walmsley ² ¹ University of Waikato, Hamilton	Flow properties of ductile ceramic granules – Challenges in characterization Liana Lang ¹ , Maria Schäfer ² , Detlef Höhne ³ , Manfred Neubling ⁴ ¹ Fraunhofer-Institute for Ceramic Technologies and Systems, Dresden, ² TU Bergakademie Freiberg, Freiberg		
15:10	Controlled release characteristics of active polymer microcapsules Ales Zadrazil ¹ , Jaroslav Hanus ² , Frantisek Stepanek ³ ¹ Institute of Chemical Technology Prague	Transitional drop penetration time: a guideline for an even drug distribution in heterogeneous - wetting formulations in wet granulation Speaker: Thanh Huynh Nguyen, Wei Shen, Karen Hapgood Monash University, Clayton	Improved heat transfer in structured fluidized beds by two innovative techniques: gas pulsation and fractal injection Bashar Hadi ¹ , Marc-Olivier Coppens ² , Ruud van Ommen ³ ¹ Delft University of Technology, Delft, ² Rensselaer Polytechnic Institute, Troy, New York	Detecting Nanoparticles in Cosmetics Mark Bumiller ¹ ¹ ROBBA Instruments, Westborough	A stochastic collision model to simulate aggregation and sintering of nano-scaled particles Stefan Horender ¹ , Martin Sommerfeld ² ¹ Martin-Luther-Universität Halle-Wittenberg, Merseburg	Influence of particle size on mechanical properties of powders produced of wheat Mateusz Stasiak ¹ , Marek Molenda ² , József Horváth ³ , Irena Opalinski ⁴ ¹ Institute of Agronomy, Lublin, ² Technical University Rzeszów, Rzeszów			

15:30 Coffee Break

Wednesday afternoon, April 28th

Session IX	T0126: Modelling and Simulations – DEM	T1033: Nanoparticles – Characterisation	T0103: Modelling and Simulations	T0521: Granulation – Dry Granulation	T0441: Multiphase Flow and Separations – Solid-Liquid Separations	T0012: Interface Controlled Systems and Processes – Aggregation and Dispersion	T0701: Grinding	T0902: Bulk Solids	
Room	Tokio (3)	St. Petersburg (2)	Seoul (3)	Istanbul (2)	Hongkong (1)	Oslo (2)	Kiew (2)	Kopenhagen (2)	Riga (2)
Chairs	R. Kacianauskas A. Katterfeld	J. C. M. Marijnissen S. Will	G. Frenning W. Yang	P. Mort C. Y. Wu	H. Kage W. Höflinger	C. Gauer S. C. Brown	J. Tomas A. Chamayou	H. Kaiman	
16:00	Making DEM-CFD simulations feasible by switching to Discrete Phase Model (DPM) in dilute regions – model synthesis and validation Christoph Kloss ¹ , Georg Aichinger ² , Stefan Pirker ³ ¹ JKU Linz, ² Fraunhofer IPT, Erlangen, ³ Siemens VAI Metals Technologies, Linz	Degradation of the Electrical Conductance of Silicon Nanoparticles Through Oxygen Exposure Sebastian Wess ¹ , Michael Janik ² , Richard Koerner ³ , Wolfgang Peukert ⁴ , Heiner Rysseck ⁵ , Lothar Frey ⁶ ¹ Chair of Electron Devices, Erlangen, ² Fraunhofer IISB, Erlangen, ³ Institute of Particle Technology, Erlangen	A Chimera Grid Technique for the Direct Numerical Simulation of Colloidal Particles Florian Keller ¹ , Markus Feist ² , Willy Dörfler ³ , Hermann Nirschl ⁴ ¹ University of Karlsruhe, Karlsruhe	The fundamental and scale-up of roller compaction of pharmaceutical powders Bindhu Gururajan ¹ , Chuan-Yu Wu ² ¹ AstraZeneca R&D, Loughborough, ² University of Birmingham, Birmingham	Improvement in Performance of a New Accurate High-throughput Triple-product Classification System using Almost Rigidly Rotating Flow Yoichi Tsuchida ¹ , Mikitaka Saba ² , Akira Hirose ³ ¹ Nagoya Institute of Technology, Nagoya, ² NTN Corporation, Kuwana	Dispersion kinetics of nano-sized particles for different dispersing machines Carsten Schilde ¹ , Arno Kwade ² ¹ Institute for Particle Technology, Braunschweig	Properties of reinforced hydrogels prepared by mechanochemical polymerization initiation Cornelia Damm ¹ , Wolfgang Peukert ² ¹ Chair of Particle Technology, Erlangen	Silo discharge of an ultrafine cohesive powder by vibrating hoppers Juegen Tomas ¹ , Daniela Pötsch ² , Guido Kache ³ , Arno Haack ⁴ ¹ Bombardier Transportation, Henningsdorf, ² Polysius, Beckum	
16:20	Brownian Dynamics Simulation of Chemical Swarm Robots Peter Granic ¹ , Frantisek Stepanek ² ¹ Institute of Chemical Technology, Prague	Influence of doping and Oxide Layer on the Conductivity of Silicon Nanoparticles Catalin Grigore Ilea ¹ , Anoop Gupta ² , Hartmut Wiggers ³ ¹ Institute for Combustion and Gasdynamics, Duisburg	Ordering of monosized particles during simulations of a fluid-solid flow under shear Catalin Grigore Ilea ¹ , Pawel Kosinski ² , Alex Christian Hoffmann ³ ¹ University of Bergen, Bergen	Real time, in situ particle monitoring during roller compaction Benjamin Smith ¹ , Ronak Vakil ² , Des O'Grady ³ , Harbhagwan Kalia ⁴ , Jane Riley ⁵ , Colleen Ruegger ⁶ ¹ Novartis Pharmaceuticals, East Hanover, ² Mettler-Toledo AutoChem, Columbia	Interaction between two fractal aggregates Karin Schiebl ¹ , Frank Babick ² , Michael Stritz ³ ¹ Technische Universität Dresden, Dresden	Polymorphic Transformation of anhydrous Caffeine under Compression and Grinding: Critical Review and New Results. Vincent Mazel ¹ , Céline Delplace ² , Virginie Busignies ³ , Bernard Legendre ⁴ , Bernard Leclerc ⁵ , Pierre Thoreloff ⁶ , Najet Yagoubi ⁷ ¹ Université Paris sud 11, Châtenay Malabry	New Insight into the Pneumatic Conveying Behaviour of Particulate Materials Near the Minimum Conveying Condition, Revealed by Improved Monitoring Techniques Michael S. A. Bradley ¹ , R. J. Farnish ² , I. Deng ³ , A. R. Reed ⁴ ¹ University of Greenwich, Chatham		
16:40	Effect of temperature on nanoparticle structuring in confined geometries: a numerical investigation Chane-Yuan Yang ¹ , Ching-Yu Wang ² , Yulong Ding ³ , Siyuan Wang ⁴ , Alan Baij ⁵ ¹ University of Leeds, Leeds, ² Process and Gamble, Newcastle	Characterization of iron oxide nanoparticles in a laser vaporization reactor using time-resolved laser-induced incandescence Alexandre Flügel ¹ , Johannes Kiefer ² , Roland Sommer ³ , Alfred Leipertz ⁴ , Heinz-Dieter Kurland ⁵ , Janet Grabow ⁶ , Gisbert Staupendahl ⁷ , Frank A. Müller ⁸ ¹ University Erlangen-Nuremberg, Erlangen, ² Friedrich-Schiller-University Jena, Jena	Application of SolidSim Flow-sheet Simulation to the Chemical Looping Combustion Ernst-Ulrich Hartge ¹ , Marvin Kramp ² , Andreas Thon ³ , Stefan Heinrich ⁴ , Joachim Werther ⁵ ¹ Solids Process Engineering and Particle Technology, Hamburg	Flow behaviour with random driving in sheared cohesive-frictional powder Abhinendra Singh ¹ , Stefan Luding ² ¹ University of Twente, Enschede	Dewatering and flow behaviour of fine limestone particle packings Sören Stein ¹ , Jürgen Tomas ² ¹ Institute Process Engineering Mechanical Process Engineering, Magdeburg	Dynamics of particles in solution: Correlation of structural and mechanical properties during aggregation Marcel Roth ¹ , Doris Vollmer ² , Günter K. Auerhammer ³ ¹ Max Planck Institute for Polymer Research, Mainz	Characterization of in situ Grafted Poly(vinylpyrrolidone) Polymer Layer on Silica Particles during Wet Grinding in Stirred Media Mill by Steady Flow Rheology and Thermal Analyses Madhusudhan Mallebakam ¹ , Thomas Koch ² , Cornelia Damm ³ , Wolfgang Peukert ⁴ ¹ Lehrstuhl für Feststoff- und Grenzflächenverfahrenstechnik F, Erlangen	Filling degree behaviour in a continuous dynamic powder mixer Eva Schlosser ¹ , Daniel Dopler ² , Kati Sommer ³ ¹ Technische Universität München – Weherstephan, Freising, ² Nestlé Research Center, Lausanne	
17:00	DEM Simulation and Spectroscopic Imaging of Pharmaceutical Tablet Dissolution James Kimber ¹ , Frantisek Stepanek ² , Sergei Kazianka ³ ¹ Imperial College London, London	Nanoparticle formation in flames and in microwave plasmas H. Mätzing ¹ , W. Baumann ² , H.-R. Paur ³ , H. Seifert ⁴ ¹ Karlsruhe Institute of Technology, Karlsruhe	Regime map for particle-droplet collisions Martin van der Hoeven ¹ , Tony Howes ² , Jim Litster ³ , Ian Cameron ⁴ , Gabriele Meesters ⁵ , Hans Wildeboer ⁶ ¹ University of Queensland, Brisbane, ² Purdue University, West-Lafayette, Delft	Size Reduction Mechanisms of Aggregate Assemblies in a Dynamic Dry Powder Bed Tofan Willems ¹ , Tien Thanh Nguyen ² , Onno de Vegt ³ , Riccardo A. A. Hooijmaijers ⁴ , Herman Vromans ⁵ , Hendrik W. Frijlink ⁶ , Kees Van der Voort Maarschalk ⁷ ¹ Schering-Plough, Oss, ² University of Groningen, Groningen	Magnetic nanoparticles functionalized for heavy and noble metal recovery Michael Rossier ¹ , Fabian M. Koehler ² , Evangelos K. Athanassiou ³ , Robert N. Grass ⁴ , Beat Aschlimann ⁵ , Markus Waelle ⁶ , Ludwig K. Limbach ⁷ , Detlef Günther ⁸ , Wendelin J. Stark ⁹ ¹ ETH Zurich, Zurich	The influence of structure of cohesive binary mixtures on dispersability behaviour under varying flow conditions Ravi Behara ¹ , Ian Larson ² , David Morton ³ , Peter Stewart ⁴ ¹ Monash Institute of Pharmaceutical Sciences, Melbourne	The Effect of "History" on the Strength Distribution, Selection Function and Breakage Function Heim Kalman ¹ , Yevgeny Rozenblat ² , Evgeny Grant ³ , Avi Levy ⁴ , Bastiaan Dickhoff ⁵ , Isabelle Peyron ⁶ , Ben-Gurion University of the Negev, Beer Sheva, ⁷ GlaosSmithKline, Ware, ⁸ GlaosSmithKline, Evreux	Determining an attrition index using lactose crystals Shaleeh Agrawal ¹ , Amandine Balandier ² , Anthony Henry John Paterson ³ ¹ Université de la Réunion, St Denis de la Réunion, ² Mossey University, Palmerston North	
17:20	Measurement of velocity field of particles in a two-dimensional spouted-bed by particle tracking velocimetry Satoshi Oh ¹ , Kaoru Yoshikawa ² , Takuya Tsuji ³ , Toshihiro Kawaguchi ⁴ , Toshitsugu Tanaka ⁵ ¹ Osaka University, Suita, Osaka	Synthesis of titania nanoparticles by premixed stagnation flames with different stabilization techniques Shuiqing Li ¹ , Yiyang Zhang ² , Junjing Wang ³ , Sili Deng ⁴ , Stephen Tse ⁵ ¹ Singhua University, Beijing, ² Rutgers, the State University of New Jersey, Piscataway	Ab initio Simulation of Second Harmonic Generation from the Surface of Nanoparticles Sarina Wunderlich ¹ , Benedikt Schürer ² , Ulf Peschel ³ ¹ Universität Erlangen-Nürnberg, Erlangen	Controlling the properties of pharmaceutical and food extrudates using a flat die press Stephan Stewin ¹ , Armand Kohl ² , Reinbeck	Acidified Zirconium Head-End Treatment Process for Zirconium Nitrate Solutions from Silica containing Zirconium Frit C.K. Asnani ¹ , B. Prakash ² , R.N. Jayaraj ³ ¹ Nuclear Fuel Complex, Hyderabad	Dispersion of carbon nanotubes in ionic liquids: Role of cosolvent and its influence in the degree of dispersion Yasmin Korth ¹ , Christian Friedrich ² ¹ Freiburger Materialforschungszentrum (FMF), Freiburg	Mechanochemical treatment of fly ash toward recycling as a cement material Yugo Nomura ¹ , Kazuo Fujiwara ² , Akihiko Terada ³ , Satoshi Nakai ⁴ , Masaki Hosomi ⁵ ¹ Tokyo University of Agriculture and Technology, Kagane, ² Hiroshima University, Higashi Hiroshima		

17:40–19:00 Poster viewing + drinks

Thursday morning, April 29th

9:00 Plenary Session I – Room Tokia – Chair T. Pfeiffer
Keynote lecture: Hans Kuipers, University of Twente: Multi-Scale Simulation of Poly-Disperse Dense Gas-Particle Flows

10:00 Coffee Break

Table with 10 columns (Session X, Room, Chairs, and 8 topic columns) and 5 rows of presentations. Topics include DEM, Particle Characterisation, Aerosols, Nanoparticles, Multiphase Flow, Granulation, Science and Engineering, Bulk Solids, and Modelling and Simulations.

Thursday midday, April 29th

12:10 Lunch and Posters

Table with 10 columns (Session XI, Room, Chairs, and 8 topic columns) and 5 rows of presentations. Topics include Interface Controlled Systems, Nanoparticles, Grinding, Nanoparticles, Nanoparticles, Nanoparticles, Particle Characterisation, Crystallisation, and Granulation.

15:30–16:00 Closing Ceremony – Gabriele Meesters