WCPT9

EXPLORING BEYOND LIMITS

WORLD CONGRESS ON PARTICLE TECHNOLOGY

September 18-22
MADRID 2022
wcpt9.org

SCIENTIFIC PROGRAM

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ASOCIACIÓN NACIONAL DE QUÍMICOS E INGENIEROS QUÍMICOS DE ESPAÑA

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SUNDAY SEPTEMBER 18th

18:00 - 19:00

PLENARY SESSION - WILLIE HENDRICKSON - CHALLENGES AND OPPORTUNITIES IN PARTICLE PROCESSING: AN INDUSTRIAL PERSPECTIVE

CONVENCION ROOM

CHALLENGES AND OPPORTUNITIES IN PARTICLE PROCESSING: AN INDUSTRIAL PERSPECTIVE
Willie Hendrickson.

19:00 - 20:00

WELCOME COCKTAIL

CONVENCION ROOM

MONDAY SEPTEMBER 19th

09:00 - 10:00

OPENING & AWARDS

CONVENCION ROOM

10:00 - 11:00

PLENARY LECTURE - JESÚS SANTAMARÍA - NANOPARTICLES AS THERAPEUTIC AGENTS. EXPECTATIONS, REALITY AND PERSPECTIVES

CONVENCION ROOM

NANOPARTICLES AS THERAPEUTIC AGENTS. EXPECTATIONS, REALITY AND PERSPECTIVES
Jesús Santamaría.

11:00 - 11:30

COFFEE BREAK - EXHIBITORS' AREA

11:30 - 13:00

T1 - MECHANICS OF PARTICULATE SOLIDS I

OSLO ROOM

KN - ACOUSTIC BEHAVIOR OF INNER EAR CANALITHS
George Klinzing *. Christopher Dumm. Jefrey S. Vipperman. Carey Balaban. Shailesh Ozarkar.

OC - BENDING STRESSES IN ELONGATED CRYSTALS UNDER SHEAR FLOW
Francois Hallac. Frans Muller*. Andrew Bayly.

*Speaker

OC - ASSESSING BULK CAKING BEHAVIOUR OF PHARMACEUTICAL POWDERS USING A SMALL-SCALE DEVICE
Ameer Alshukri*. Ali Hassanpour. Sven L. M. Schroeder. Elizabeth Willnef.

PRESENTATION FROM THE WINNER OF THE EXCELLENCE AWARD ON MECHANICS OF PARTICULATE SOLIDS EFCE-WPMPS

11:30 - 13:00

T2 - FUNDAMENTALS AND STANDARDS

MADRID ROOM

KN - APPLICATION OF BOOTSTRAP METHOD TO PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS
Tatsushi Matsuyama*.

OC - CHARACTERIZING THE DYNAMICS OF CRYSTALLIZATION THROUGH ANALYSIS OF TEMPORALLY VARYING LIGHT TRANSMISSION PROFILES OF CRYSTALLIZING SUSPENSION SETTLING IN A VERTICAL TUBE
Rutuja Amrale. Jyoti Seth*. Vinay Juvekar.

OC - EVALUATION OF DEEP LEARNING METHODS FOR PARTICLE CHARACTERISATION FROM IN-LINE IMAGING AND CHORD LENGTH DISTRIBUTION MEASUREMENTS
Christopher Boyle*. Cameron Brown. Jan Sefcik. Javier Cardona. Vaclav Svoboda. Neda Nazemifard. Christopher L. Burcham. Francesca Perciballi. Jan-Sebastiaan Uyttersprot.

OC - COHESION OF ICE POWDERS AT VERY LOW TEMPERATURES : DYNAMICAL CHARACTERIZATION OF ANALOGS OF ICY REGOLITHS OF THE SOLAR SYSTEM
Benoit Jabaud*. Riccardo Artoni. Gabriel Tobie. Erwan Le Menn. Patrick Richard.

11:30 - 13:00

T3 - CATALYSIS, ADSORPTION AND INDUSTRIAL APPLICATIONS

VIENA ROOM

OC - APPLICATION OF NANOCELLULOSIC MATERIALS AS ADSORBENTS TO REMOVE NI2+ AND PB2+ FROM WASTEWATER
Francisco de Borja Ojembarrena Jiménez*. Sergio Garcia Ochoa. Noemí Merayo. Angeles Blanco. Carlos Negro.

OC - TOWARDS H2 PRODUCTION BY PILOT-SCALE PREPARATION OF NICKEL COBALT OXIDE ANODES: CHARACTERIZATION AND OPTIMIZATION
Vineetha Vinayakumar*. Adarsha Kumara Adagalale Jinadath. Faezeh Shahsavan Davoudi. Christian Marcks. Nicolas Wöhrl. Anna K. Mechler. Doris Segets.

OC - EXPLORING THE ELECTROCHEMICAL BEHAVIOR OF BI-BASED CATHODES FOR THE ELECTROCATALYTIC REDUCTION OF CO2 TO FORMATE
José Antonio Abarca. Beatriz Avila-Bolívar. José Manuel Vadillo. Guillermo Díaz Sainz*. Manuel Alvarez-Guerra. Jose Solla-Gullón. Vicente Montiel. Angel Irabien.

OC - DIFFERENT PARTICLE SIZES OF GRAPHITE IN MULTILAYER ANODES FOR LITHIUM-ION BATTERIES
Laura Gottschalk*. Jannes Müller. Arno Kwade.

OC - INVESTIGATION AND EVALUATION OF THE EFFECT OF DIFFERENT COMPRESSIONS ON BLEND ANODES CONTAINING GRAPHITE AND HARD CARBON
Nanny Strzelczyk*. Arno Kwade. Laura Gottschalk.

*Speaker

11:30 - 13:00

T9 - INDUSTRIAL APPLICATIONS I

BAHIA ROOM

KN - HOW CAN WE SIMULATE REAL POWDER HANDLING PROCESSES?

Satoru Watano*.

OC - SOLUBLE GAS ABSORPTION BY SLURRY DROPLETS AS A WAY TO INTENSIFY THE GRANULATION PROCESS DURING SPRAY DRYING

Boris Krasovitov. Yehonatan David Pour. Andrey Fominykh*. Ziba Hashemloo. Abdolreza Kharaghani. Evangelos Tsotsas. Avi Levy.

OC - PRESSURE-DEPENDENT TUNING OF A SEMI-EMPIRICAL BREAKAGE KERNEL FOR MODELING THE MICRONIZATION PROCESS OF PHARMACEUTICAL POWDERS

Carmine Sabia*. Tommaso Casalini. Marco Spaggiari. Luca Cornolti. Giovanni Frigerio. Luca Martinoli. Alberto Martinoli. Antonio Buffo. Daniele Marchisio. Maurizio Barbato.

OC - EXPERIMENTAL STUDY OF RED VOLCANIC SAND PARTICLES IN A DIRECTLY IRRADIATED FLUIDIZED BED FOR CSP APPLICATIONS

Leonel M. Cerutti-Cristaldo. Minerva Díaz-Heras. José A. Almendros-Ibáñez*.

FC - VIRTUAL OPTIMIZATION OF POLISHING PROCESSES BASED ON DEM SIMULATIONS

Bastian Helldörfer*. Birgit Fruggel.

FC - SIMULATING LARGE SCALE PARTICULATE SYSTEMS USING A COMBINED 3D-1D APPROACH

Alice Koenig*.

11:30 - 13:00

T6 - CYCLONES & HYDROCYCLONES

LONDRES ROOM

OC - AEROSOL PARTICLE PENETRATION IN A RESPIRABLE CYCLONE SAMPLER AT THE DIFFERENT FLOW RATES

Dzmitry Misiulia*. Göran Lidén. Sergiy Antonyuk.

OC - DESIGN OF NOVEL SMALL DIAMETER GAS CYCLONES FOR ACCURATE PARTICLE CLASSIFICATION

Arjun Kumar Pukkella*. Jan CILLIERS. Kathryn Hadler.

OC - DEVELOPMENT AND NUMERICAL SIMULATION OF AN EFFICIENT CYCLONE SEPARATOR WITH A RECIRCULATION SYSTEM

Praveen Kumar Nedumaran*. Dzmitry Misiulia. Sergiy Antonyuk.

OC - ANALYTICAL AND NUMERICAL MODEL FOR THE DESCRIPTION OF THE SEPARATION AND PRESSURE DROP BEHAVIOR OF SMALL-SCALE UNIDIRECTIONAL CYCLONE SEPARATORS

Gunnar Dwars*. Carsten Mehring.

OC - NUMERICAL MODELING OF A GAS CYCLONE SEPARATOR USING A HYBRID CFD-DEM-DDPM APPROACH

Vinicius Daroz*. Rahul Bharadwaj.

*Speaker

11:30 - 13:00

T7 - AEROSOL TECHNOLOGY

PARIS ROOM

KN - PARTICLE-SURFACE IMPACTS AT SUPERSONIC SPEEDS: FROM AEROSOL DEPOSITION TO HIGH SPEED FLIGHT VEHICLE DAMAGE ASSESSMENT

Chris Hogan*. Guanyu Song. Chenxi Li. Devin McGee. Austin Andrews.

OC - RESPONSIVE NANOSTRUCTURED MATERIALS AND DEVICES AGAINST INFECTIONS

Georgios Sotiriou*.

OC - SILVER NANOPARTICLE BASED POINT OF CARE DIAGNOSTIC AMMONIA SENSOR

Padryk Merkl*. Georgios Sotiriou.

OC - FLAME AEROSOL FABRICATION OF ROBUST SERS CHEMICAL SENSORS FOR FOOD SAFETY DIAGNOSTICS

Haipeng Li*. Padryk Merkl. Jens Sommertune. Thomas Therslef. Georgios Sotiriou.

11:30 - 13:00

T9 - FUNDAMENTALS AND DEVELOPMENTS I

CONVENCION ROOM

KN - NEWS ON MODELING COHESIVE POWDERS: FROM COMPRESSION TO TENSION

Stefan Luding*.

OC - MULTIPHASE MIXTURE THEORY FOR TURBULENT FLOWS

Charles Petty*. Andre Benard.

OC - SIMPLE MODELING OF THE AGAROSE GEL ELECTROPHORESIS OF SPHERICAL AND ROD-SHAPED AU NANOPARTICLES IN DEPENDENCE ON THE MESH SIZE

Matthäus Barasinski*. Julia Hilbig. Stefan Neumann. David Rafaja. Georg Garnweitner.

OC - TWIST, SPLAY AND BEND VISCOSITY FROM SINGLE PARTICLE DYNAMICS IN NEMATIC MEDIA

Deyvi Alan Parientes Sánchez*. Aldo Acevedo-Rullán.

FC - NUMERICAL ANALYSIS OF TENSILE STRENGTH OF ANNULAR AGGLOMERATE DURING RING COMPRESSION TEST

Jiawei Hu*. Chuan-yu Wu.

FC - DRY POWDER MODELLING THROUGH AI AS BASIS FOR NUMERICAL SIMULATION

Christoph Thon*. Somayeh Hosseinhahsemi. Ann-Christin Böttcher. Arno Kwade. Carsten Schilde.

11:30 - 13:00

T8 - NANOCELLULOSES

CARACAS ROOM

KN - DEVELOPMENT AND CHARACTERIZATION OF HYDROPHOBIC NANOCELLULOSE PARTICLES THROUGHT ESTERIFICATION REACTION AS ADDITIVE IN COATINGFORMULATIONS

Ana Balea*. Ana Gutierrez. Angeles Blanco. Carlos Negro.

OC - CATIONIC MICRO/NANOFIBRILLATED CELLULOSE: ASSESSMENT OF THE DECONSTRUCTION EFFECT OF TWO DISTINCT CATIONIZATION METHODS

Jorge Pedrosa*. Maria Graça Rasteiro. Carlos Neto. Paulo Ferreira.

*Speaker

OC - KINETIC STUDY OF TEMPO - MEDIATED OXIDATION AND REAL - TIME MONITORISING STRATEGY
Andre Mazega Fontes*.

FC - APPLICATION OF CELLULOSE MICROFIBRILS FOR STABILIZATION OF PICKERING EMULSIONS IN FOOD INDUSTRY
Hongyu Xu*. José Luis Sanchez-Salvador. M. Concepción Monte. Angeles Blanco. Carlos Negro.

FC - RHEOLOGICAL PROPERTIES OF MICRO-/NANOFIBRILLATED CELLULOSE BASED COATING FORMULATIONS
Mohit Sharma*. Artur J. M. Valente. Paulo Ferreira.

11:30 - 13:00

JE - PARTICLE TECNOLOGY SHAPING THE FUTURE I

LA PAZ ROOM

KN - IMPORTANCE OF PARTICLE TECHNOLOGY FOR CIRCULAR PRODUCTION OF TODAY´S AND FUTURE BATTERIES
Arno Kwade*. Peter Michalowski. Julian Mayer. Alexander Schoo. Christine Burmeister.

KN - THERMAL ENERGY STORAGE IN THERMAL SOLAR POWER PLANTS BY MOLTEN SALTS: PAST, PRESENT AND FUTURE WITH NANO-PARTICLES
Francisco Javier Pérez Trujillo*.

KN - BRIDGING THE VALLEY OF DEATH: THE ROLE OF PARTICLE TECHNOLOGY IN BRINGING FUNCTIONAL MATERIALS INTO TECHNICAL ELECTROCHEMISTRY ON INDUSTRIAL
Doris Segets*.

13:00 - 14:30

LUNCH - DUQUE ROOM & TERRACE

14:30 - 15:30

PLENARY LECTURE - JUDITH BONSALL - SUDS, SOUP AND SHAMPOO – UNILEVER: MY WORLD OF POWDERS

CONVENCION ROOM

SUDS, SOUP AND SHAMPOO – UNILEVER: MY WORLD OF POWDERS
Judith Bonsall.

15:30 - 16:00

COFFEE BREAK - EXHIBITORS' AREA

16:00 - 17:30

T1 - MECHANICS OF PARTICULATE SOLIDS II

OSLO ROOM

KN - OPTIMISATION OF MATERIAL HANDLING EQUIPMENT FOR BIOMASS – HOW TO OPTIMISE ORANGE PEEL GRAB DESIGN FOR WOOD CHIPS
André Katterfeld *. Hendrik Otto.

*Speaker

OC - CONCEPTUAL DESIGN OF A NOVEL GRASPING GRIPPER WITH ACTIVELY STIMULATED PARTICLES
Qianyi Chen*. Jovana Jovanova. Dingena Schott.

OC - INFLUENCE OF MOISTURE CONTENT ON THE BULK DENSITY OF THREE GRANULAR MATERIALS USUALLY STORED IN AGRICULTURAL SILOS
Manuel Moya*. David Sánchez. José Ramón Villar.

OC - A MACHINE LEARNING-BASED MULTI-SCALE COMPUTATION FRAMEWORK FOR GRANULAR MATERIALS
Shaoheng Guan*.

OC - AN INVESTIGATION INTO MOISTURE MIGRATION THROUGH TWO DISTINCT MOISTURE LAYERS OF IRON ORE FINES
Kenneth Williams. Peter Robinson. Kylie Nettleton*.

16:00 - 17:30

T2 - PARTICLE PROPERTIES AND EFFECTS I

MADRID ROOM

OC - HYDROGEN ELECTROLYZER RECYCLING - CHARACTERIZATION OF THE LAYERS AND PARTICLE COMPONENTS OF MEMBRANE ELECTRODE ASSEMBLIES TO ASSESS THE ULTRAFINE PARTICLE SEPARATION ABILITY
Sohyun Ahn*. Thomas Mütze. Martin Rudolph.

OC - IMPACT OF PARTICLE SIZE DISTRIBUTION ON THE EXTRACTION OF KEY COMPOUNDS IN COFFEE
Mauricio Vaca Guerra*. Lennart Fries. Yogesh M. Harshe. Stefan Heinrich.

OC - TOWARDS INTUITIVE TITANIA PHOTOCATALYST DESIGN: USING PARTICLE SIZE DISTRIBUTIONS-BASED CHARACTERIZATION FOR DETERMINING HANSEN PARAMETERS
Osama Anwar*. Shalmali Bapat. Doris Segets. Xiaofeng Xie. Jing Sun.

OC - INFLUENCE OF PLANT MATERIAL ON PLANT-BASED MILK POWDER CHARACTERISTICS
Kathrin Kramm*. Jana Christina Kammerhofer. Vincent Meunier. Swantje Pietsch-Braune. Stefan Heinrich.

FC - TRACKING THE ORDER OF MIXING EFFECTS IN TERNARY ADHESIVE MIXTURES USING A COLOURED TRACER
Vikram Karde*. Marv Khala. Colin Hare. Jerry Heng.

16:00 - 17:30

T3- CLASSIFICATION AND COMMINUTION I

VIENA ROOM

KN - PREDICTION OF SLURRY-PARTICLE FLOW WITHIN A SAG MILL USING AN EFFICIENT AND SCALABLE DEM-SPH FULLY-COUPLED APPROACH
Vinicius Daroz. Rahul Bharadwaj*. Lucilla Almeida. Alexander Potapov.

OC - THE ROLE OF NOZZLES NUMBER AND INCLINATION ANGLE IN THE SPIRAL JET MILLING OF PHARMACEUTICAL SUBSTANCES
Giovanni Frigerio*. Carmine Sabia. Luca Martinoli. Alberto Martinoli. Maurizio Barbato.

OC - THREE-DIMENSIONAL MICROSTRUCTURE ANALYSIS AND BREAKING MECHANISMS IN HETEROGENEOUS STRUCTURES
Thu Trang Vo*. Thomas Leißner. Urs Alexander Peuker.

*Speaker

OC - AUTOGENOUS GRINDING OF SILICON IN WET-OPERATED STIRRED MEDIA MILLS: INVESTIGATION OF PROCESS AND PRODUCT PARAMETERS
Marcel Filipe Möller*. Arno Kwade.

OC - WET NANOMILLING OF DRUG MATERIALS USING A NOVEL STABILIZATION MECHANISM VIA ZIRCONIUM COMPLEXATION
Scott Maar*. Cornelia Damm. Wolfgang Peukert.

16:00 - 17:30

T4 - HYDRODYNAMICS OF FLUIDS CONTAINING BUBBLES, DROPS, AND PARTICLES

BAHIA ROOM

OC - NUMERICAL SIMULATION OF EVAPORATION BEHAVIOR OF SLURRY DROPLETS IN SPRAY DRYING PROCESS
Shuji Ohsaki*. Naoya Kaneda. Hideya Nakamura. Satoru Watano.

OC - PRESSURIZED GAS-SOLID FEEDER FOR BIOMASS INJECTION INTO GAS- SOLID FIXED AND FLUIDIZED BEDS
Sina Tebianian*. Lucas Massaro Sousa. Benjamin Amblard.

OC - FLUIDIZATION OF A GELDART C POWDER IN A MICRO-FLUIDIZED BED
Awad Alamri*.

OC - EXPERIMENTAL AND NUMERICAL STUDY OF FRICTIONAL FLOWS IN A VERTICAL MILLIFLUIDIC TUBE
Anis Ouchene*. Eric Serris. Guillaume Dumazer. Guilhem Mollon.

OC - OPTIMIZE GAS SOLID DISTRIBUTION USING COMPUTATIONAL MODELING
Raj Singh*. Paul Marchant. Steve Shimoda.

16:00 - 17:30

T6 - INDUSTRIAL APPLICATIONS

LONDRES ROOM

KN - APPLYING CIRCUALR ECONOMY TOWARDS TURBIDITY REDUCTION OF SUGARCANE JUICE
Maria Graça Rasteiro*. Sofia Leão. Solange Magalhães. José Gamelas. Fernando Garcia. Cláudio Lima. Bruno Stein.

OC - PARTICLE FILTRATION WITH INNOVATIVE SUBMERGED MICRO- AND ULTRAFILTRATION MEMBRANE ELEMENTS
Gerd Braun*. Christine Klefner.

OC - MODELLING THE MOTION OF DUST PARTICLES IN ELECTROSTATIC TRAVELLING WAVE FIELDS
Yue Yu. Kathryn Hadler. Jan Cilliers. Stanley Starr. Yanghua Wang.

OC - NUMERICAL STUDY OF THE TRANSPORT AND RETENTION OF PARTICLES IN THE SLURRY THROUGH THE POROUS MEDIA
Dan Sun*.

FC - MONITORING AND OPTIMIZATION OF COLLOIDAL FRACTIONATION IN TUBULAR CENTRIFUGES
Marvin Winkler*. Marco Gleiß. Hermann Nirschl.

*Speaker

16:00 - 17:30

T7 - AEROSOL IMPACT ON ENVIRONMENT AND CLIMATE CHANGE AND AEROSOLS AND HEALTH

PARIS ROOM

KN - ENHANCED LIGHT ABSORPTION AND RADIATIVE FORCING BY BLACK CARBON AGGLOMERATES
Georgios Kelesidis*. David Neubauer. Liang-Shih Fan. Ulrike Lohmann. Sotiris Pratsinis.

OC - SAND IMPACT ON SNOW ALBEDO
Lapuerta Magín. Sofía González-Correa*. Diego Gómez-Doménech. Rosario Ballesteros.

OC - AEROSOL NUMBER CONCENTRATION AND SIZE DISTRIBUTION IN SARS- COV2 POSITIVE PATIENTS
Frederik Weis*.

OC - IMPACT OF NONTHERMAL PLASMA IONIZER ON PARTICULATES FROM COMBUSTION OF BIOMASS
Zakariah Adu Adejoh*. Adam Harvey. Kui Zhang.

OC - COMPARISON OF AEROSOL SIZE DISTRIBUTION OF VULCANIC ASHES AND SAHARA DUST AND ITS SPATIAL DIFFERENCES ON LA PALMA ISLAND
Ann-Kathrin Goßmann*. Frederik Weis. Maximilian Weiß. Agnes Sauleda Brossa. Jon Vilches Sarasate. Víctor Gallo Acosta.

16:00 - 17:30

T9 - EXTENDED DISCRETE ELEMENT METHOD (XDEM) AND UPSCALING OF PARTICLE SYSTEMS

CONVENCION ROOM

KN - VIRTUAL FORMULATION LABORATORY FOR PREDICTION AND OPTIMISATION OF MANUFACTURABILITY OF ADVANCED SOLIDS BASED FORMULATIONS
Csaba Sinka*.

OC - DEM-BPM MODELLING FOR FROZEN PARTICLE FLUID SYSTEMS MECHANICS
Tsz Tung Chan *. Jürgen Grabe. Stefan Heinrich.

OC - WET MILLING OF MEFENAMIC ACID FOR SEED GENERATION: MODEL- DRIVEN SIZE REDUCTION FOR MAXIMIZING YIELD
Bhavik Mehta. Cameron Brown. Niall Mitchell*.

OC - IMPROVING THE ACCURACY OF COARSE-GRAINING BIDISPERSE PARTICLE FLOWS BY TUNING FRICTION PARAMETERS
Hossein Zeidabadinejad*. Daniel Queteschiner. Simon Schneiderbauer.

OC - DEM–PBM COUPLING SIMULATION OF WET GRANULATION WITHOUT EMPIRICAL PARAMETERS
Hideya Nakamura*. Tomoya Baba. Shuji Ohsaki. Satoru Watano. Kenta Takehra. Takahide Higuchi.

16:00 - 17:30

T9 - FUNDAMENTALS AND DEVELOPMENTS II

CARACAS ROOM

OC - SIMULATION OF EMULSION RHEOLOGY FOR HIGHER THAN CRITICAL CAPILLARY NUMBERS
Ioannis Bagkeris*. Vipin Michael. Adam Kowalski.

OC - A DISCRETE DIFFERENTIAL GEOMETRIC FORMULATION OF MULTIPHASE SURFACE INTERFACES FOR SCALABLE MULTIPHYSICS EQUILIBRIUM SIMULATIONS
Stefan Endres*. Lutz Mädler. Marc Avila.

*Speaker

OC - APPROXIMATING THE VAN DER WAALS INTERACTION POTENTIALS BETWEEN AGGLOMERATES AND THEIR COAGULATION ENHACEMENT EFFECT
José Morán*. Jérôme Yon. Christophe Henry. Reza Kholghy.

OC - ANALYSIS OF PARTICLE IMPACT DAMAGE BY MATERIAL POINT METHOD
Saba Saifoori*. Saeid Nezamabadi. Mojtaba Ghadiri.

OC - DEM SIMULATION OF SOLIDIFICATION OF COHESIVE PARTICLES IN SIMPLE SHEAR FLOW BY USING DYNAMIC ADHESION FORCE MODEL
Toshitsugu Tanaka*. Seiya Tanaka. Kimiaki Washino. Takuya Tsuji.

OC - ACCES: AUTONOMOUS CHARACTERISATION AND CALIBRATION USING EVOLUTIONARY SIMULATION
Andrei-Leonard Nicusan*. Dominik Werner. Jack Sykes. Jonathan Seville. Kit Windows-Yule.

16:00 - 17:30

JE - PARTICLE TECNOLOGY SHAPING THE FUTURE II

LA PAZ ROOM

KN - FROM CO2 TO VALUE-ADDED PRODUCTS: PARTICLES FOR THE ELECTROCATALYTIC CONVERSION OF CO2
Manuel Alvarez-Guerra*.

KN - ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF PARTICLE TECHNOLOGY
Carsten Schilde*. Somayeh Hosseinhahsemi. Marvin Röhl. Ann-Christin Böttcher. Arno Kwade. Christoph Thon.

KN - ON OPTIMIZATION OF PARTICULATE PRODUCTS: FROM SYNTHESIS TO COLOUR
Lukas Pflug*.

17:35 - 19:00

POSTER SESSION - T1. PARTICULATE SOLIDS HADLING

OSLO ROOM

PO - CAPILLARY WATER TRANSPORT IN BIOMASS PELLETS AND ITS INFLUENCE ON STRUCTURE AND STABILITY
Abdullah Sadeq. Swantje Pietsch-Braune. Stefan Heinrich*.

PO - RESEARCH ON MULTIPHASE FLUIDIZED BED SEPARATION TECHNOLOGY FOR WASTE MIXTURES
Jan Nečas. David Žurovec*.

PO - OPTIMISATION OF BALL INDENTATION FLOWABILITY MEASUREMENT TECHNIQUE: BED PREPARATION AND INDENTATION CONDITIONS
Azza Mahmoud. Colin Hare*. Chuan-yu Wu. Ali Hassanpour.

PO - ESTIMATE THE IMPACT OF EXTENT OF LUBRICATION ON DOWNSTREAM TABLET PROPERTIES.
Neeru Bala*. Jim Litster. Rachel Smith.

PO - SENSITIVITY ANALYSES OF BINARY MIXTURE PARAMETERS ON BLAST FURNACE SEGREGATION AND BED PERMEABILITY
Raïsa Roeplal*.

PO - CONCEPT FOR THE SIMULTANEOUS DUST RELEASE AND SEPARATION BY MEANS OF ELECTROSTATICALLY ASSISTED SPRAY NOZZLE SYSTEMS
Marcus Weidemann*. Eberhard Schmidt.

*Speaker

PO - AN AERATED VIRTUAL COUETTE POWDER RHEOMETER: A CFD-DEM ANALYSIS
Ivan Marchante Gracia. Victor Francia*.

PO - SCALE-UP STUDIES OF BATCH MIXERS
Angga Herman. Zongyan Zhou*. Jieqing Gan. Aibing Yu.

17:30 - 19:00

POSTER SESSION - T2. PARTICLE AND PARTICULATE SYSTEMS CHARACTERIZATION

MADRID ROOM

PO - FULLERENE AND SILICA NANOPARTICLE DIFFUSIVITIES IN AIR FROM MOLECULAR DYNAMICS SIMULATIONS
Katerina S. Karadima. Dimitrios Tsalikis*. Vlasis G. Mavrantzas. Sotiris Pratsinis.

PO - EFFECT OF PARTICLE SHAPE ON VOID-FRACTION AND FLOWABILITY
Haim Kalman*.

PO - CHARACTERIZATION OF THE PHYSICAL AND FLOW PROPERTIES OF NON-CONVENTIONAL SOLIDS FOR PNEUMATIC CONVEYING (PHOBARS PROJECT)
Manuela Quezada Henry*. Mikel Leturia. Elias Daouk. Thierry Destoop. Fabrice Bonny. Antoine Flament. Mathieu Morin. Sina Tebianian. Khashayar Saleh.

PO - THE USE OF X-RAY COMPUTED TOMOGRAPHY TO QUANTIFY PACKING AND CONSOLIDATION BEHAVIOURS OF MEFENAMIC ACID AND D-MANNITOL
Bridgit Etbon*. Parmesh Gajjar. Daniel Sykes. Philip Withers. Ali Hassanpour. Kevin J. Roberts.

PO - AUTO-AGGLOMERATION OF DRY IBUPROFEN POWDER: EFFECT OF SURFACE CHEMISTRY AS A RESULT OF RECRYSTALLISATION
Svetlana Bibiceva*. Ali Hassanpour. Sven L.M. Schroeder.

PO - CHARACTERIZATION OF COMPLEX COLLOIDAL NANOMATERIALS BY MEANS OF ANALYTICAL ULTRACENTRIFUGATION
Lisa Stiegler*.

PO - STABILITY OF CARBON PARTICLES SUSPENDED IN A HIGH VISCOSITY SOLUTION
Weiyu Deng*. Benjamin Gregoire. Yulong Ding. Yongliang Li.

PO - INFLUENCE OF ELECTROSTATIC CHARGE ON PARTICLE VELOCITY IN PNEUMATIC CONVEYING
Mohsen Isaac Nimvari*. Milad Taghavivand. Andrew Sowinski. Poupak Mehrani.

PO - METHOD OF MEASUREMENT & ANALYSIS OF INDIVIDUAL CRYSTAL DISSOLUTION RATE USING ULTRAFAST TOMOGRAPHY IMAGING
Filip Hládek*. David Zůza. Ondrej Navratil. Jan Tomas. Aleš Zadražil. Vladimír Novák. František Štěpánek.

PO - ANALYSIS OF A ROTARY GRANULATOR PROCESS BY MAGNETIC PARTICLE TRACKING
Tobias Oesau. Philipp Grohn*.

PO - INFLUENCE OF MOISTURE CONTENT ON THE MECHANICAL PROPERTIES OF THREE GRANULAR MATERIALS USUALLY STORED IN AGRICULTURAL SILOS
Manuel Moya*. David Sanchez. José Ramón Villar.

*Speaker

17:35 - 19:00

POSTER SESSION - T3. PARTICLE PROCESSING

VIENA ROOM

PO - TRANSITION TO A NEW CIRCULAR ECONOMY MODEL BY SLUDGE- BASED ACTIVATED CARBONS FOR THE SUSTAINABILITY REMOVAL OF ORGANIC COMPOUNDS

Pablo Gutiérrez Sánchez*. Eva Sanz Santos. Silvia Álvarez Torrellas. Marcos Larriba Martínez. V. Ismael Águeda Maté. Juan García Rodríguez.

PO - LOW-COST MICROPLASTIC DETECTION AND IDENTIFICATION USING MICROFLUIDIC ATR PLATFORM FOR OCEAN APPLICATION

Camila Maria Ramos Aires Moreira Penso*. Clarisse Ribeiro. Maria Conceição Paiva. Luís Miguel Gonçalves.

PO - GEOPOLYMERS AS POTENTIAL ADSORBENTS TO REMOVE WATER- BASED FLEXOGRAPHIC INKS.

María Isabel Martín Hernández*. Nagore Acha Uriarte. María Concepción Monte Lara. María Ángeles Blanco Suárez.

PO - EFFECT OF SURFACE MODIFICATION OF CACO3 NANOPARTICLES BY A SILANE COUPLING AGENT ON THE STABILITY OF FOAM AND EMULSION

Jongchoo Lim*. JuYeon Lee. HeeDong Shin.

PO - ELECTROCATALYTIC REDUCTION OF CO2 TO FORMATE: ASSESSMENT OF PARTICLES WITH DIFFERENT NATURE

Iván Merino-García. Kevin Fernández-Caso. Jonathan Albo. Manuel Alvarez-Guerra. Guillermo Díaz Sainz*.

PO - CHARACTERIZATION OF NEW HETEROGENEOUS CATALYSTS OBTAINED FROM URBAN AND INDUSTRIAL SEWAGE SLUDGE. APPLICATION IN EMERGING CONTAMINANTS REMOVAL

Pablo Gutiérrez Sánchez*. Eva Sanz Santos. Silvia Álvarez Torrellas. Marcos Larriba Martínez. V. Ismael Águeda Maté. Juan García Rodríguez.

PO - DEVELOPMENT OF A HETERO-AGGREGATION PROCESS OF SUBMICRON PARTICLES BY MIXING AND DESUBLIMATION IN A SUPERSONIC FLOW

Luca Schädler*. Oleg Urazmetov. Marc Weirich. Sergiy Antonyuk.

PO - ACOUSTIC AGGLOMERATION OF MICROPARTICLES IN A HUMID ENVIRONMENT

Kristina Kilikevičienė*. Rimantas Kačianauskas. Maximilian Kerner. Sergiy Antonyuk. Darius Vainorius.

PO - IMMOBILIZATION OF AMYLASE AND PROTEASE IN IRON OXIDE MICROPARTICLES. APPLICATION IN FOOD CLEANING

Rubén González Beneded. Ismael Lobato Guarnido*. Manuela Lechuga Villena. Juan Francisco Martínez Gallegos. José María Vicaria Rivillas. Encarnación Jurado Alameda.

PO - CHARACTERIZATION OF THE DEFORMATION BEHAVIOR OF METAL POWDERS AT DIFFERENT STRESS INTENSITIES IN WET-OPERATED GRINDING MEDIA MILLS

David Sterling*.

PO - MODELLING SPECIFIC ENERGY REQUIREMENTS FOR KNIFE-MILLED WHEAT STRAW AND BEECH CHIPS AT DIFFERENT MOISTURES AND MILL VARIABLES

Lukas Kratky*. Tomas Jirout. Mehmet Ayas. Martin Dostal.

PO - THEORETICAL AND EXPERIMENTAL INVESTIGATION OF ACOUSTIC AGGLOMERATION OF AEROSOL PARTICULATES

Kristina Kilikevičienė*. Rimantas Kačianauskas. Algirdas Maknickas. Algis Džiugys. Artūras Kilikevičius.

PO - DRYING OF AVOCADO WASTES FROM GUACAMOLE PRODUCTION IN A CONICAL SPOUTED BED DRYER

Maria J San Jose*. Sonia Alvarez. Raquel Lopez.

*Speaker

PO - EFFECT OF ROTOR GEOMETRY ON PHYSICAL PROPERTIES AND ENERGY CONSUMPTION OF BEECH WOOD CHIPS
Carlos Arce Gutiérrez*. Lukas Kratky.

17:30 - 19:00

POSTER SESSION - T4. PARTICLE-FLUID SYSTEMS: FLUIDIZATION AND MULTI-PHASE FLOW

BAHIA ROOM

PO - PHASE SEPARATION OF PHASE CHANGE MATERIALS FOR COLD ENERGY STORAGE
Zeyu Niu*. Zhubing He. Yulong Ding.

PO - LIQUID-SOLID PHASE CHANGE AND HEAT TRANSFER IN A PHASE- CHANGE-MATERIAL (PCM) BASED HEAT EXCHANGER: A NUMERICAL STUDY
Siyuan Dai*. Yulong Ding.

PO - A PACKED-BED BASED GAS-SOLID THERMOCHEMICAL SYSTEM FOR THERMAL ENERGY STORAGE - AN EXPERIMENTAL STUDY
Mingxi Ji*. Binjan Nie. Yulong Ding.

PO - SOLID SUSPENSION AND SOLID-LIQUID-LIQUID DISPERSION USING A FUNDAMIX VIBROMIXER
Sara Almasi*. Barat Ghobadian. Martine Poux. Joëlle Aubin.

PO - EXPERIMENTAL CHARACTERIZATION OF THE BEHAVIOUR OF AGGLOMERATES IN GAS-SOLID FLUIDIZED-BED REACTORS
Matteo Errigo*. Massimiliano Materazzi. Paola Lettieri.

PO - EFFECT OF FLUID RHEOLOGY ON SAND SCREEN PERFORMANCE
Noor Ismail. Shibo Kuang*. Aibing Yu.

PO - CPFD NUMERICAL SIMULATIONS OF A FLUIDIZED BED WITH AN IMMERSED TUBE BUNDLE
Minerva Díaz-Heras. Juan I. Córcoles. Antonio Acosta-Iborra. José A. Almendros-Ibáñez*.

17:30 - 19:00

POSTER SESSION - T6. PARTICLE SEPARATION

LONDRES ROOM

PO - DEFLECTOR WHEEL CLASSIFIER FOR FINEST PARTICLES WITH INTEGRATED MATERIAL SORTING
Mohamed Saad Elsayed Abohelwa*. Alfred Weber. Annett Wollmann. Leonard Hansen.

PO- NANOBUBBLE-INDUCED CENTRIFUGAL FIELD FLOTATION OF NANOPARTICLES
Bernd Benker*. Juliana Rivas-Botero. Annett Wollman. Alfred Weber.

PO - PREDICTION AND MULTI-OBJECTIVE OPTIMIZATION OF HYDROCYCLONE BY COMBINING CFD AND DATA-DRIVEN MODEL
Qing Ye. Peibo Duan. Shibo Kuang. Ruiping Zou*. Aibing Yu.

*Speaker

TUESDAY SEPTEMBER 20th

08:30 - 10:00

T1 - MECHANICS OF PARTICULATE SOLIDS III

OSLO ROOM

OC - SIMULATION OF THE GAS FLOW IN A FIXED BED OPERATED DEGASSING SILO WITH ANALYSIS OF THE GAS DISTRIBUTION AND THE HEAT TRANSFER ZONE
Hans Schneider*. Pia Rist.

OC - MICROMECHANICAL ANALYSIS OF FLOW AND ENERGY DISSIPATION DURING THE DISCHARGING PROCESS OF A RECTANGULAR HOPPER HANDLING POLYDISPERSE PARTICLES
Patricio Jacobs*. Shibo Kuang. Aibing Yu.

OC - HOPPER DISCHARGE OF COHESIVE POWDERS USING MODULATED PULSED AIRFLOW
Lizhuo Zhu*. Haifeng Lu. Massimo POLETTO. Xiaolei Guo. Haifeng Liu.

FC - ENERGY EFFICIENCY: ECONOMIC USE OF COMPRESSED AIR IN PNEUMATIC CONVEYING FOR BULK SOLIDS
Adriano Gomes de Freitas. Ognjen Orozovic. Patricio Jacobs*. Luis Alberto Martinez Riascos. Aibing Yu.

08:30 - 10:00

T2 - PARTICLE PROPERTIES AND EFFECTS II

MADRID ROOM

OC - FINE PARTICLE SEPARATION IN LITHIUM ION BATTERY BLACK MASS RECYCLING - THE CHALLENGE OF PARTICLE WETTABILITY CHARACTERIZATION
Martin Rudolph*. Anna Vanderbruggen. Johanna Sandbrink.

OC - SELECTIVE LIQUID-LIQUID EXTRACTION OF FINE PARTICLES
Claudia Kerstin Heilmann*. Urs Peuker.

OC - EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF THE MECHANICAL PROPERTIES OF PARTICLES FOR COLD SPRAYING OF WALL SURFACES
Mustafa Bozoglu*. Sergiy Antonyuk.

FC - MASS TRANSFER IN FOUNTAIN CONFINED CONICAL SPOUTED BEDS: ASCERTAINING THE EFFECT OF OPERATING CONDITIONS AND GEOMETRIC FACTORS OF THE INTERNAL DEVICES
Xabier Sukunza*. Roberto Aguado. Aitor Pablos. Mikel Tellabide. Idoia Estiati. Martin Olazar.

08:30 - 10:00

T3 - AGGLOMERATION, DEAGGLOMERATION AND DISPERSION I

VIENA ROOM

OC - CONTINUOUS PARTICLE AGGREGATION AND QUICK SEDIMENTATION FOR AQUEOUS SLURRIES BY USING DC ELECTRIC FIELD
Takamsa Mori*. Fuki Koike. Yu Ito. Kenta Kitamura.

*Speaker

OC - SYSTEMATIC SCREENING OF BINDER FUNCTIONALITY FOR AGGLOMERATION OF SKIM MILK POWDER
Tobias Raiber*. Reinhard Kohlus.

OC - STABILITY/AGGREGATION OF BINARY COLLOIDAL DISPERSIONS IN SOLVENT MIXTURES
Azita Rezvani*. Doris Segets.

OC - SCALE-UP OF HIGH-SHEAR WET GRANULATION THROUGH MODEL-DRIVEN DESIGN
Stefan Bellinghausen*. Matthew Reading. Emmanuela Gavi. Laura Jerke. Jim Litster. Dana Barrasso. Sean K Bermingham.

FC - IMPROVING THE IONIC CONDUCTIVITY OF HYBRID SOLID POLYMER ELECTROLYTES BY SURFACE MODIFIED FILLER PARTICLES
Laura Helmers*. Peter Michalowski. Arno Kwade.

08:30 - 10:00

T4 - INDUSTRIAL APPLICATIONS I

BAHIA ROOM

OC - FLUIDIZED BED REACTOR APPLICATION FOR CATALYTIC PYROLYSIS OF WASTE PLASTIC
Raj Singh. Carlo Badiola. Song Wang*. Alexander Maller. Paul Marchant.

OC - THE DRAG CONUNDRUM: MODELING FLUID-PARTICLE MOMENTUM EXCHANGE IN FLUIDIZED BEDS
Casey LaMarche*. Jia Chew. Ray Cocco.

OC - COATSIM: A SIMULATION BASED DIGITAL SOLUTION FOR OPTIMIZATION OF PRODUCTION PROCESSES FOR PARTICLE LADEN FLOWS
Bercan Siyahhan*. Gernot Boiger.

OC - DESIGN ASSESSMENT OF PELTON TURBINE INJECTOR FOR HYDRO- ABRASIVE EROSION PERFORMANCE
Rahul Tarodiya. Subodh Khullar. Avi Levy*.

OC - A COMBINED PEPT/X-RAY STUDY OF THE INFLUENCE OF LIQUID LOADING ON FLUIDISED BEDS DYNAMICS
Dominik Werner*. Jack Sykes. Franklin Putra. Nikita Simarmata. Jonathan Seville. Kit Windows-yule.

08:30 - 10:00

T6 - FILTRATION I

LONDRES ROOM

KN - FUNDAMENTAL ANALYSIS OF PARTICLE-BASED PORE SYSTEMS IN FILTRATION USING X-RAY MICROSCOPY
Urs Peuker*. Erik Löwer.

OC - THE EFFECT OF THE PULSE JET CLEANING CONDITION ON THE PERFORMANCE OF PLEATED FILTER IN THE DUST COLLECTOR
Kunihiro Fukui*. Kazuki Furumoto. Tomonori Fukasawa. Toru Ishigami.

OC - SMALL SCALE FILTRATION EXPERIMENTS BY ANALYTICAL MULTISAMPLE PHOTO-CENTRIFUGAL FILTRATION (ACF)
Philipp Loesch*. Sebastian Boldt. Daniel Krause. Dietmar Lerche. Sergiy Antonyuk.

OC - FREQUENCY-MODULATED DIELECTROPHORETIC PARTICLE CHROMATOGRAPHY
Jasper Giesler*. Georg Pesch. Michael Baune. Jorg Thöming.

*Speaker

FC - DEVELOPMENT OF COMPOSITE FILTER MEDIA FOR CONTINUOUS CAKE FILTRATION WITHOUT GAS THROUGHPUT
Nikolai Benz*. Philipp Lösch. Kai Nikolaus. Sergiy Antonyuk.

FC - NONLINEAR REGRESSION OF CAKE FILTRATION EXPERIMENTS
Edgar Schach*. Thomas Buchwald. Urs Peuker.

FC - REDUCTION OF THE RATE OF PRESSURE DROP INCREASE IN SURFACE FILTERS FOR DUST SEPARATION THROUGH ADDITIVE DOSING OR COARSE DUST RECIRCULATION
Eberhard Schmidt*.

08:30 - 10:00

JE - THERMOMECHANICAL BEHAVIOUR OF GRANULAR MATERIALS (MATHEGRAM)

PARIS ROOM

OC - MODELLING AND VALIDATION OF ENERGY DISSIPATION DUE TO THE PLASTIC DEFORMATION OF AN ELASTO-PLASTIC SPHERE DURING NORMAL IMPACT
Tokio Morimoto*. Francisco Kisuka. Chuan-Yu Wu.

OC - THE MULTI-LEVEL COARSE-GRAIN MODEL USED IN CFD-DEM SIMULATIONS OF IRON ORE REDUCTION
Daniel Queteschiner*. Simon Schneiderbauer. Stefan Pirker. Thomas Lichtenegger.

OC - VISCOUS SINTERING OF MELTING GRAINS
Domenica Braile*. Colin Hare. Chuan-Yu Wu. Marco Ramaioli.

OC - EXPERIMENTAL INVESTIGATION OF HEAT GENERATION IN GRANULAR MIXES
Francisco Kisuka*. Vincenzino Vivacqua. Chuan-Yu Wu.

OC - A DEM STUDY OF HEAT TRANSFER MECHANISMS IN DENSE GRANULAR MATERIALS
Rafael Rangel*. Alessandro Franci. Alejandro Cornejo. Francisco Zárate. Eugenio Oñate.

08:30 - 10:00

T9 - DISCRETE ELEMENT METHOD AND COUPLED SIMULATIONS I

CONVENCION ROOM

OC - DEM BASED FLOWSHEET SIMULATION OF DRY GRANULATION IN ROLLER COMPACTION
Christian Eichler*. Stefan Heinrich. Maksym Dosta. Alexander Schmidt.

OC - SIMULATING THE COMPACTION OF ARBITRARILY SHAPED PARTICLES WITH LEVEL-SET DEM
Dingeman van der Haven*. Kaisa Naelapää. Ioannis Fragkopoulos. James Elliott.

OC - MODELING AND DEM SIMULATION OF HIGH STRESS COMPACTION FOR COHESIVE POWDERS WITH ELASTIC-PLASTIC CONTACT BEHAVIOR
Robert Hesse*. Sergiy Antonyuk.

OC - DEM SIMULATION OF NON-SPHERICAL PARTICLES: A COMPREHENSIVE ANALYSIS ON PACKING, PENETRATION RESISTANCE AND COMPUTATION TIME
M. Javad Mohajeri*. Dingena Schott. GertJan van Selm.

OC - APPLYING THE DISCRETE ELEMENT METHOD (DEM) TO OPTIMISE THE DESIGN OF A LUNAR MINERAL TRIBOCHARGER
Joshua Rasera. Jan Cilliers*. Kathryn Hadler.

*Speaker

FC - DEM MODELLING OF TRIBOELECTRIFICATION AND ELECTROSTATIC DISPERSION OF PARTICLES
Jiawei Hu*. Chuan-Yu Wu.

08:30 - 10:00

T8 - INDUSTRIAL APPLICATIONS: ENERGY, ENVIRONMENT, ... I

CARACAS ROOM

KN - UNIQUE APPROACH FOR MANUFACTURING LI-ION BATTERY ELECTRODES
Suman Pokhrel*. Michael Gockeln. Lutz Mädler.

OC - INFLUENCE OF PARTICULATE PROPERTIES ON THE PERFORMANCE OF NANO-SILICON GRAPHITE COMPOSITES FOR LITHIUM-ION BATTERY ANODES
Jannes Müller*. Peter Michalowski. Arno Kwade.

OC - MECHANOCHEMISTRY: A SUSTAINABLE ROUTE TO NOVEL METAL- SUPPORTED CERIA-BASED HETEROGENEOUS CATALYSTS
Maila Danielis*. Sara Colussi. Alessandro Trovarelli.

OC - THE IMPACT OF SUPPORT MATERIAL OF COBALT-BASED CATALYSTS PREPARED BY DOUBLE FLAME SPRAY PYROLYSIS ON CO2 METHANATION DYNAMICS
Jakob Stahl*. Suman Pokhrel. Lutz Mädler.

FC - THE "CCU+OX" COORDINATED PROJECT: DEVELOPMENT OF PROCESSES FOR CAPTURE AND ELECTROCHEMICAL VALORIZATION OF CO2 COUPLED TO USEFUL ELECTRO- OXIDATIONS
Manuel Alvarez-Guerra*. José Solla-Gullón. Vicente Montiel. Teresa Andreu. Aurora Garea.

08:30 - 10:00

JE - PARTICLE TECNOLOGY SHAPING THE FUTURE III

LA PAZ ROOM

KN - SELF-ASSEMBLY FOR THE FORMATION OF HIGHLY REGULAR PARTICLE STRUCTURES
Nicolas Vogel*.

KN - HIERARCHICAL, SELF-ASSEMBLED PARTICLE NETWORKS IN THIN FILMS AND IN BULK: FROM TRANSPARENT ELECTRODES TO FLEXIBLE CONDUCTORS
Tobias Kraus*.

KN - THE WORLD OF PARTICLES WE EMIT: HOW WELL DO WE UNDERTAND AND CRONTOL IT?
Lidia Morawska*.

10:00 - 11:00

PLENARY LECTURE - WOLFGANG PEUKERT - ADVANCED FUNCTIONAL PARTICLES: SCALABLE FORMATION, PROPERTY CLASSIFICATION AND MULTIDIMENSIONAL CHARACTERIZATION

CONVENCION ROOM

ADVANCED FUNCTIONAL PARTICLES: SCALABLE FORMATION, PROPERTY CLASSIFICATION AND MULTIDIMENSIONAL CHARACTERIZATION
Wolfgang Peukert.

11:00 - 11:30
COFFEE BREAK - EXHIBITORS' AREA

*Speaker

11:30 - 13:00

T1 - CONVEYING AND TRANSPORT

OSLO ROOM

OC - COHESIVE BULK SOLID DISCHARGE BEHAVIOR FROM VARIOUS BELT CONVEYOR CONFIGURATIONS
Liz Del Cid*.

OC - TUBULAR PUSH CONVEYOR – A NEW MECHANICAL CONVEYING SYSTEM WITH GAP EFFECT
André Katterfeld*. Matthias Pusch. Rolf Kamps.

OC - MEASURE PARTICLE VELOCITY IN PULSE INJECTION PNEUMATIC CONVEYING VIA ELECTRICAL CURRENT SIGNAL ANALYSIS
Mohsen Isaac Nimvari*. Milad Taghavivand. Andrew Sowinski. Poupak Mehrani.

OC - TRANSPORT AND DEPOSITION OF FINE PARTICLES USING ELECTROSTATIC ACCELERATION IN A POWDER PROCESS
Masahiro Ota*. Mizuki Shoyama. Masatoshi Yasuda. Shuji Matsusaka.

OC - COLLISION CHARACTERISTICS OF NON-SPHERICAL PARTICLES ON DUCTILE SURFACE UNDER NORMAL IMPACT: NUMERICAL INVESTIGATION
Rahul Tarodiya. Avi Levy*.

OC - WEAR DEFORMATION OF A CONVEX PATTERN SURFACE USING DEM AND DEFORMABLE GEOMETRY TECHNIQUE
Yunpeng Yan*. Rudy Helmons. Dingena Schott.

11:30 - 13:05

T2 - RHEOLOGICAL AND DYNAMICAL CHARACTERIZATION

MADRID ROOM

OC - NOVEL METHOD FOR EVALUATING THE EFFECT OF ELEVATED TEMPERATURE ON POWDER FLOW PROPERTIES
Amalia Thomas*. Jamie Clayton.

OC - EFFECT OF THE MIXING SEQUENCE AND ADSORPTION BEHAVIOR OF BINDERS ON RHEOLOGICAL CHARACTERISTICS AND PACKING ABILITY OF AQUEOUS GRAPHITE SLURRIES
Kenta Kitamura*. Masaki Tanaka. Takamasa Mori.

OC - A GENERAL FRAMEWORK FOR DATA EXTRACTION AND ANALYSIS OF DYNAMIC ANGLE OF REPOSE TESTS
Luca Orefice*. Johannes Khinast.

OC - DISPERSION IN HORIZONTAL STIRRED BED REACTORS
Sahar Pourandi*. Thomas Weinhart. Igor Ostanin. Anthony Thornton.

OC - INVESTIGATING THE SHEAR STABILITY OF SPRAY-DRIED SI/C MICROAGGLOMERATES IN LITHIUM-ION BATTERY ANODE SLURRIES
Fatih Özcan*. Jonas Watermann. Adil Amin. Theresa Waßmer. Julia Lyubina. Stefan Bade. Doris Segets.

FC - INFLUENCE OF RELATIVE HUMIDITY ON LOCALISED CAKING BEHAVIOUR IN FOOD POWDERS
Amalia Thomas*. Jamie Clayton.

*Speaker

11:30 - 13:00

T3 - AGGLOMERATION, DEAGGLOMERATION AND DISPERSION II

VIENA ROOM

OC - INFLUENCE OF THE SPECIFIC ENERGY INPUT OF DIFFERENT SLURRY- DEVICES ON THE PROPERTIES OF SI-ANODES
Tim Grenda*. Arno Kwade. René Jagau.

OC - STIRRER DESIGN FOR IMPROVED FLUIDIZATION OF COHESIVE MICROSILICA
Rens Kamphorst*. Kaiqiao Wu. Jasper Ford. Gabriel Meesters. Ruud Van Ommen.

OC - SYSTEMATIC STUDY OF COMMINUTION OF CARBON CARRIER MATERIAL FOR FUEL CELL APPLICATION USING WET IMPACT MILL
Amin Said Amin*. / Volker Peinecke. Thomas Lange. Adib Caidi. Fatih Özcan. Doris Segets.

OC - SELECTIVE AGGLOMERATION OF SUBMICRON PARTICLES FROM WET FINE GRINDING WITH POTENTIAL FOR WEAR SEPARATION
Christoph Peppersack*. Arno Kwade. Sandra Breitung-Faes.

OC - AGGLOMERATION OF WET SOLID PARTICLES IN A FLUIDIZED BED
Ziv Greidinger*. Avi Levy. Sankaran Sundaresan. Benjamin J. Glasser.

FC - MODELLING THE TWIN SCREW GRANULATOR AS MIXING AGGREGATE - ON THE INHERENT BALANCING OF FEEDER FLUCTUATIONS
Jens Bartsch*. Till Steger. Hendrik Hallfarth. Robin Meier. Markus Thommes.

11:30 - 13:00

T4 - INDUSTRIAL APPLICATIONS II

BAHIA ROOM

KN - FLOW REGIME CHART FOR PNEUMATIC CONVEYING AND PLUGS ANALYSIS
Haim Kalman*.

OC - INVESTIGATION OF FLUID-PARTICLE FLOW IN GAS-SOLID CYCLONE SEPARATORS USING DEM-CFD SIMULATION
Alberto Di Renzo*. Erasmo Salvatore Napolitano. Francesca Orsola Alfano. Francesco Paolo Di Maio.

OC - MULTISCALE MODELLING OF MODERATELY DENSE GAS-SOLID FLOWS USING A HYBRID DISCRETE-CONTINUUM METHOD
Behrad Esgandari*. Stefanie Rauchenzauner. Christoph Goniva. Rouven Weiler. Simon Schneiderbauer.

OC - INFLUENCE OF PULSATILE FLOW ON SOLID-LIQUID MIXTURES IN MILLI FLOW REACTORS
Joris Claes*. Mumin Enis Leblebici. Simon Kuhn. Leen Thomassen.

11:30 - 13:00

T6 - FILTRATION II

LONDRES ROOM

OC - DIELECTROPHORETIC FILTRATION FOR SELECTIVE SEPARATION OF SUBMICRON PARTICLES AT HIGH THROUGHPUT
Mariia Kepper*. Malte Lorenz. Michael Baune. Jorg Thöming. Georg Pesch.

*Speaker

OC - ELECTRET FILTER MEDIA: EXPERIMENTAL AND NUMERICAL STUDY OF SUBMICRON AEROSOL DEPOSITION
Maximilian Kerner*. Sergiy Antonyuk. Kilian Schmidt.

OC - SELECTIVE REMOBILIZATION OF MICROPARTICLES IN A MESH-BASED DEP FILTER AT A HIGH THROUGHPUT
Laura Weirauch*. Jasper Giesler. Georg Pesch. Michael Baune. Jorg Thöming.

OC - FROM CLEAN ROOM INTO VEHICLE CABIN: USE OF HEPA FILTER TO REMOVE ULTRA-FINE PARTICLES IN VEHICLES
Matisse Lesage*. David Chalet. Jérôme Migaud. Christoph Krautner.

OC - NUMERICAL SIMULATION OF FILTRATION OF FINE PARTICLES IN THE GRANULAR BED GAS FILTERS
Dan Sun*.

OC - PARTICLE CAPTURE IN OPEN-CELL FOAMS: FILTRATION EFFICIENCY AND COMPARISON WITH GRANULAR BEDS
Enrico Agostini*. Marion Servel. Yacine Haroun. Maxime Moreaud. Frederic Augier. Gianluca Boccardo. Daniele Marchisio.

11:30 - 13:05

JE - CHALLENGES OF MICROPLASTICS ANALYSIS AND CONTROL

PARIS ROOM

OC - WHAT IMPLICATIONS TO FOOD SUSTAINABILITY AND SAFETY DO MICROPLASTICS HAVE IN THE FISHERIES AND AQUACULTURE SECTORS?
Ian Vázquez-Rowe*. Rubén Aldaco. Maria Margallo. Dian Ita-Nagy. Ramzy Kahhat.

OC - EVIDENCE OF MICROPLASTICS ACCUMULATION IN THE OCEAN IN LATIN AMERICA AND THE CARIBBEAN
Ian Vázquez-Rowe*. Rubén Aldaco. Jara Laso. Ana Fernández Ríos. Diana Ita-Nagy. Ramzy Kahhat.

OC - DEVELOPMENT OF A METHOD FOR IN-SITU REAL-TIME MONITORING OF MICROPLASTICS IN WASTEWATERS USING A PHOTO-OPTICAL MEASUREMENT TECHNIQUE
Dr. Katrin Schuhen. Michael Sturm. Raphael Klein. Sebastian Maaß*.

OC - EXTRACTION AND CHARACTERIZATION OF MICROPLASTICS FROM INDUSTRIAL EFFLUENTS: CONTINENTAL PORTUGAL ANALYSIS
Solange Magalhães*. Luís Alves. Bruno Medronho. Maria Graça Rasteiro.

OC - DYNAMIC MODELING TO CHARACTERIZE THE FATE OF PLASTICS IN THE LCA METHODOLOGY
Bilal Erradhouani*. Philippe Loubet. Guido Sonnemann.

PO - FROM MICROPLASTICS TO GARBAGE ISLANDS: CHALLENGES FOR THE LIFE CYCLE OF FISHERIES
Israel Ruiz Salmón. Jara Laso. Ana Fernández Ríos. Cristina Campos. Maria Margallo. Rubén Aldaco. Sandra Ceballos Santos*.

11:30 - 13:00

T9 - DISCRETE ELEMENT METHOD AND COUPLED SIMULATIONS II

CONVENCION ROOM

KN - STATE-OF-THE-ART MODELING OF COMPUTATIONAL GRANULAR DYNAMICS FOR A SIMULATION-BASED DIGITAL TWIN
Mikio Sakai*.

*Speaker

OC - EFFECT OF DRAG AND CONTACT FORCE SCALING USING COARSE GRAINED PARTICLES IN COUPLED DEM-CFD SIMULATIONS

Janna Grabowski*. Harald Kruggel-Emden. Matthias Kraume. Viktor Brandt. Nico Jurtz.

OC - FLUIDIZED BED DYNAMICS WITH CYLINDRICAL PARTICLES: DEM SIMULATION WITH THE SUPERQUADRIC APPROACH COUPLED WITH CFD

Luca Schädler*. Philipp Grohn. Aitor Atxutegi. Stefan Heinrich. Sergiy Antonyuk.

OC - A REVOLUTIONARY, EVOLUTIONARY FRAMEWORK FOR MODELLING MULTIPHASE SYSTEMS

Kit Windows-yule*.

OC - AN OVERVIEW OF DEM AND CFD-DEM MODELLING OF PARTICLE AND FLUID-PARTICLE APPLICATIONS, INCLUDING MULTI-SCALE AND MULTI- PHYSICS APPROACHES

Christoph Kloss*. Alice König. Riccardo Togni. Arno Mayrhofer. Augusto Moura. Andreas Aigner. Christoph Goniva.

11:30 - 13:00

T8 - INDUSTRIAL APPLICATIONS: ENERGY, ENVIRONMENT, WATER TREATMENT, HEALTH, ... II

CARACAS ROOM

KN - DRUG NANOPARTICLE SEEDED DESUPERSATURATION AND DISSOLUTION TESTS FOR DEVELOPMENT OF ROBUST AMORPHOUS SOLID DISPERSIONS

Ecevit Bilgili *. Gulenay Guner. Ayesha Amjad. Matthew Berrios. Manisha Kannan.

OC - EFFECT OF CONDUCTIVE PARTICLES AND SUBSTRATES ON ENHANCED METHANE PRODUCTION

Stella Chan*. Tatsushi Matsuyama. Junichi Ida. Kento Nishi. Tatsuki Toda.

OC - ORDERED PT NANOROD ARRAYS GROWN ON AU NANOSEEDS FOR PROTON EXCHANGE MEMBRANE FUEL CELLS

Yichang Yan *. Shangfeng Du. Yang Li.

OC - PRODUCTION OF MIXED PD, HF AND TA NANOPARTICLES BY ATMOSPHERIC-PRESSURE SPARK ABLATION

Klito Petallidou*. Andreas Sousanis. George Biskos.

FC - UPGRADING TIO2 PERFORMANCE BY DEVELOPING NOVEL TIO2-BASED NANOHYBRIDS IN SUPERCRITICAL MEDIUM

Jesusa Rincón*. Rafael Camarillo. Fabiola Martínez. Carlos Jiménez. Isaac Asencio.

FC - ELECTROCHEMICAL REACTOR FOR CONTINUOUS CO2 VALORIZATION: SYNTHESIS AND USE OF NICKEL CARBON-SUPPORTED NANOPARTICLES TO CATALYZE THE OXYGEN EVOLUTION REACTION

Angel Irabien. Guillermo Díaz Sainz. Kevin Fernández Caso*. Sofia Delgado. Tiago Lagarteira. Manuel Alvarez-Guerra. Adelio Mendes.

11:30 - 13:00

JE - PARTICLE TECNOLOGY SHAPING THE FUTURE IV

LA PAZ ROOM

KN - THERMOPLAST FEEDSTOCKS FOR LASER POWDER BED FUSION OF POLYMERS - NOVEL APPROACHES FOR PRODUCTION AND PROCESS- ADAPTED CHARACTERIZATION

Jochen Schmidt*.

*Speaker

KN - DESIGN OF AL ALLOYS FOR ADDITIVE MANUFACTURING

María Teresa Pérez-Prado*. Carmen Cepeda-Jiménez. Clara Galera-Rueda. María Sansebastián. Emma Gil. Srdjan Milenkovic. Javier Llorca.

13:00 - 14:30

LUNCH - DUQUE ROOM & TERRACE

14:30 - 15:30

PLENARY LECTURE - MARÍA JOSÉ ALONSO - NANOSTRUCTURED MATERIALS TO DESIGN INNOVATIVE NANOMEDICINES

CONVENCION ROOM

NANOSTRUCTURED MATERIALS TO DESIGN INNOVATIVE NANOMEDICINES

María José Alonso.

15:30 - 16:00

COFFEE BREAK - EXHIBITORS' AREA

16:00 - 17:30

T1 - MIXING AND SEGREGATION

OSLO ROOM

KN - PARTICLE SHAPE-INDUCED AXIAL SEGREGATION OF BINARY MIXTURES OF SPHERES AND ELLIPSOIDS IN A ROTATING DRUM

Zongyan Zhou*. Siyuan He. Aibing Yu. David Pinson.

OC - ELUCIDATING PARTICLE FLOWS IN HORIZONTAL STIRRED BED REACTORS BY RADIOACTIVE PARTICLE TRACKING

Christian van der Sande*. Jack de Mooij. Evert Wagner. Gabriel Meesters. Ruud van Ommen.

FC - NUMERICAL ANALYSIS OF GRANULAR DYNAMICS IN A FULL-SCALE CONTINUOUS BLENDER USING DEM

Charley Wu*. Chao Zheng. Liang Li. Bernardus Joseph Nitert. Ling Zhang.

16:00 - 17:30

T2 - CHARACTERIZATION OF POWDERS FOR ADDITIVE MANUFACTURING I

MADRID ROOM

OC - RELEVANCE OF HIGHT TEMPERATURE PACKING DYNAMICS FOR ADDITIVE MANUFACTURING CHARACTERIZATION

Salvatore Pillitteri. Aurélien Neveu. Filip Francqui. Geoffroy Lumay. Stephane Caubergh*.

OC - SUITABILITY OF ERODED PARTICLES FROM ELECTRO DISCHARGE MACHINING (DIE-SINK EDM) FOR ADDITIVE MANUFACTURING – CHARACTERIZATION AND PROCESSING OF WASTE STREAM PRODUCTS

Oliver Paul Voigt*. Urs Peuker.

OC - PRE-ALLOYED POWDERS OF TI-FE ULTRAFINE EUTECTICS FOR LASER ADDITIVE MANUFACTURING

Akshya Kumar Pandey*. Paula Alvaredo. Srdjan Milenkovic. Federico Sket.

*Speaker

OC - SPREADABILITY VERSUS FLOWABILITY: TRANSIENT JAMMING MAKES THEM DIFFERENT
Mojtaba Ghadiri. Wei Pin Goh*. Wenguang Nan. Mehrdad Pasha.

FC - POLYAMIDE POWDER REJUVENATION FOR 3D PRINTING
Jamie Clayton. Amalia Thomas*.

FC - CHARACTERIZATION OF METAL POWDER FOR ADDITIVE MANUFACTURING PROCESS
Mozhdeh Mehrabi*. Ali Hassanpour. Andrew Bayly.

FC - INVESTIGATING THE POLYMERIC POWDER SPREADING PROPERTIES AT VARIOUS TEMPERATURES FOR SELECTIVE LASER SINTERING
Sina Zinatlou Ajabshir. Diego Barletta*. Daniele Sofia. Massimo Poletto.

16:00 - 17:30

T3 - AGGLOMERATION, DEAGGLOMERATION AND DISPERSION III

VIENA ROOM

OC - A WIDELY APPLICABLE METHOD TO STABILIZE NANOPARTICLES COMPRISING OXYGEN-RICH FUNCTIONAL GROUPS
Monica Distaso*. Wolfgang Peukert.

OC - PLANETARY ROLLER PROCESSING – THE NEW LEVEL OF CONTINUOUS GRANULATION
Daniel Nesges. Thomas Birr. Markus Thommes. Jens Bartsch*.

OC - SINGLE DROP GRANULATION OF PHARMACEUTICAL BINARY MIXTURES
Tianxiang Gao. Heather Emady*.

OC - MONITORING MICROCAPSULES FORMATION USING LASER DIFFRACTION SPECTROSCOPY
Fernando Bernardo*. Maria Graça Rasteiro.

OC - LIGHT SCATTERING FROM NANOPARTICLE AGGLOMERATES
Georgios Kelesidis*. Reza Kholghy. Joel Zuercher. Julian Robertz. Martin Allemann. Aleksandar Duric. Sotiris Pratsinis.

16:00 - 17:30

T4 - MEASUREMENT TECHNIQUES, MIXING AND REACTOR ENG., FLUIDIZATION OF IRREGULAR SHAPES AND CLC

BAHIA ROOM

KN - MAGNETIC RESONANCE IMAGING (MRI) OF PARTICULATE SYSTEMS
Christoph Müller*.

OC - DRAG FORCE ACTING ON IRREGULARLY SHAPED PARTICLES
Sadaf Maramizonouz*. Sadegh Nadimi.

OC - CHEMICAL LOOPING OXIDATIVE DEHYDROGENATION FOR INTENSIFIED LIGHT OLEFIN PRODUCTION
Fanxing Li*. Luke Neal.

OC - INTERPHASE TRANSFER TERMS IN THE REYNOLDS AVERAGED TWO FLUID MODEL FOR THE SIMULATION OF HIGH VOLUME FRACTION SUSPENSIONS OF PARTICLES IN TURBULENT LIQUIDS
Giuseppina Montante*. Francesco Maluta. Federico Alberini. Alessandro Paglianti.

*Speaker

16:00 - 17:30

T6 - HYBRID PROCESSES

LONDRES ROOM

KN - ACOUSTIC STREAMING AND PARTICLE FRACTIONATION IN ACOUSTIC FIELDS
Krischan Sandmann*. Udo Fritsching.

OC - BI-DIMENSIONAL FRACTIONATION OF RARE EARTH COMPOUNDS BY MAGNETIC FIELD CONTROLLED CHROMATOGRAPHY
Laura Kuger*. Matthias Franzreb.

OC - NANOPARTICLE DEPRESANTS IN FINE PARTICLE SEPARATION – THE EFFECT OF COLLOIDAL SILICA IN CALCIUM MINERAL FLOTATION
Martin Rudolph. Borhane Ben Said*. Lucas Pereira.

OC - INVESTIGATING THE INFLUENCE OF MULTIPLE PARTICLE PROPERTIES ON THE SEPARATION OF ULTRAFINE PARTICLES VIA ENHANCED FROTH FLOTATION
Johanna Sandbrink*. Martin Rudolph.

OC - HIGHLY SPECIFIC AND MULTIDIMENSIONAL SEPARATION OF FINE PARTICLE SYSTEMS WITH TECHNICAL RELEVANCE: UNDERSTANDING OF THE MICRO PROCESSES
Bernd Benker*. Harald Kruggel-Emden. Hermann Nirschl. Christian Cierpka. Udo Fritsching. Jeanette Hussong. Georg Pesch. Urs Peuker. Alfred Weber.

16:00 - 17:30

T9 - DISCRETE ELEMENT METHOD AND COUPLED SIMULATIONS III

CONVENCION ROOM

OC - HEAT TRANSFER AND DRYING IN A ROTATING DRUM: CFD-DEM SIMULATIONS
Aman Rastogi*. Vincenzino Vivacqua. Colin Hare. Darren Gobby. Hugh Stitt.

OC - ULTRA FAST CALCULATION OF CONDUCTIVE HEAT TRANSFERS IN A MOVING GRANULAR MEDIUM
Clara Haydar*. Sylvain Martin. Bonnefoy Olivier.

OC - CFD-DEM MODELING AT HIGH TEMPERATURES: EFFECTS OF GAS DENSITY CHANGE AND RADIATION
Stefan Radl*. Jelena Macak. Christoph Goniva.

OC - DEM-SIMULATION OF DRYING AND CALENDERING OF LITHIUM-ION BATTERY ELECTRODES
Mark Lippke*. Tobias Ohnimus. Carsten Schilde. Arno Kwade.

OC - DISCRETE ELEMENT METHOD (DEM) MODELLING OF LITHIUM-ION BATTERY ELECTRODE STRUCTURES UNDER DIFFERENT CALENDERING CONDITIONS
Ruihuan Ge. Denis Cumming. Rachel Smith*.

OC - COMPUTER SIMULATION OF BOTTOM HOLE CLEANING IN OIL-WELL DRILLING OPERATIONS USING THE COUPLED DEM-CFD METHOD
Alireza Zakeri*. Mohammadreza Alizadeh Behjani. Ali Hassanpour.

*Speaker

16:00 - 17:30

T8 - INDUSTRIAL APPLICATIONS: ENERGY, ENVIRONMENT, WATER TREATMENT, HEALTH, ... III

CARACAS ROOM

OC - SONOCHEMICAL OXIDATION OF HIGHLY CONDUCTIVE CARBON BLACKS (CBS) OF TURBOSTRATIC STRUCTURE AND ITS EFFECT ON THE PERFORMANCE OF A PROTON EXCHANGE MEMBRANE FUEL CELL (PEMFC)

Adib Caidi*. Doris Segets. Thomas Lange. Volker Peinecke.

OC - AN EFFECTIVE STRATEGY FOR FABRICATING SUSTAINABLE POROUS CARBON SPHERES DERIVED FROM KRAFT LIGNIN WITH CONTROLLABLE STRUCTURES

Kiet Le Anh Cao*. Takashi Ogi.

OC - OBSERVATION OF GLYCEROL-WATER MIXTURES TRANSPORT THROUGH HEATED BIOMASS LAYERS USING COLLOIDAL FLUORESCENT PARTICLES

Tiara Nur Pratiwi*. Yosuke Asanuma. Toshiaki Iwai. I. Wuled Lenggoro.

OC - CONTINUOUS SYNTHESIS OF FUNCTIONALIZED MAGNETIC NANOPARTICLES AND APPLICATION TO SOLID-LIQUID SEPARATIONS

Belén García-Merino*. Eugenio Bringas. Inmaculada Ortiz Uribe.

OC - BI-SN-SB CARBON-SUPPORTED NANOPARTICLES FOR THE CONTINUOUS ELECTROCHEMICAL REDUCTION OF CO2 TO FORMATE WITH IMPROVED PERFORMANCE

Angel Irabien. Kevin Fernández Caso*. Beatriz Avila-Bolívar. José Solla-Gullón. Guillermo Díaz Sainz. Manuel Alvarez-Guerra. Vicente Montiel.

16:00 - 17:30

T9 - INDUSTRIAL APPLICATIONS II

LA PAZ ROOM

KN - NUMERICAL INVESTIGATION OF IRONMAKING BLAST FURNACE WITH SIMULTANEOUS INJECTION OF HYDROGEN THROUGH SHAFT AND HEARTH TUYERES

Jinghai Li. Shibo Kuang*. Ruiping Zou. Aibing Yu.

OC - CFD MODELING FOR INDUSTRIAL FCC RISER FEED INJECTION WITH EXTENSION TO OTHER VAPOR/LIQUID/SOLID APPLICATIONS

Peter Blaser*.

OC - DYNAMIC FLOWSHEET SIMULATION OF AN INDUSTRIAL ZEOLITE PRODUCTION PROCESS

Vasyl Skorych*. Moritz Buchholz. Maksym Dosta. Helene Wettich. Marco Gleiss. Johannes Haus. Dominik Weis. Simon Hammerich. Gregor Kiedorf. Norbert Asprion. Hermann Nirschl. Frank Kleine Jäger. Stefan Heinrich.

FC - DEVELOPMENT AND NUMERICAL SIMULATION USING CPFD OF A NOVEL CONFIGURATION OF DUAL FLUIDIZED BED GASIFIER FOR INCREASED RESIDENCE TIME AND TAR REDUCTION OF BIOMASS

Desalegn Kassahun*. Tesfaye Dama.

FC - NUMERICAL STUDY OF THE EFFECT OF AN EXTERNAL MAGNETIC FIELD ON SOFT ABRASIVE FLOW MACHINING BY USING SMOOTHED PARTICLE HYDRODYNAMICS

Shoya Mohseni-Mofidi*. Claas Bierwisch.

FC - NUMERICAL SIMULATION OF THE DISPERSION OF GASEOUS AND PARTICULATE POLLUTANT IN INDUSTRIAL PARK

Xiaofei Ma*. Wenqi Zhong.

*Speaker

21:00 - 23:00

CONGRESS DINNER

MADRID TEATRO REAL (ENTRANCE ON CARLOS III STREET)

WEDNESDAY SEPTEMBER 21st

08:30 - 10:00

T1 - DUST SAFETY (DUST CONTROL, SUPPRESSION, COLLECTION, EXPLOSIONS, ...)

OSLO ROOM

KN - INDUSTRY CENTRIC RESEARCH CHALLENGES IN AUSTRALIA - CASE STUDIES FROM THE CENTRE FOR BULK SOLIDS AND PARTICULATE TECHNOLOGIES
Kenneth Williams*.

OC - MECHANISMS OF DUST GENERATION DURING GRAIN HANDLING
Kingsly Ambrose*. Yumeng Zhao. Marvin Petingco. Mark Casada. Ronaldo Maghirang.

OC - ANALYSIS AND REDUCTION OF THE RISK OF FIRE EXPLOSION IN PYROTECHNIC STORES
Isabel Amez Arenillas*. David León Ruiz. Blanca Castells. Javier García Torrent. Lilian Medic Pejic.

OC - END-USE PROPERTIES OF POWDERS FROM FLOWABILITY TO DUSTINESS
Maria Camila Jiménez Garavito*. Maria Graciela Cares Pacheco. Véronique Falk. Fabien Gerardin.

OC - INERTIZATION OF IGNITION IN BIOMASS DUST LAYERS
Isabel Amez Arenillas*. Blanca Castells Somoza. Nieves Fernandez-Anez. Alberto Tascón Vegas. Javier García Torrent.

08:30 - 10:00

T2 - CHARACTERIZATION OF POWDERS FOR ADDITIVE MANUFACTURING II

MADRID ROOM

OC - FLOWABILITY OF POLYMER POWDERS AT ELEVATED TEMPERATURES FOR ADDITIVE MANUFACTURING
Moritz Rüther. Hans-Joachim Schmid*.

OC - CHARACTERISATION OF SPREADABILITY BEHAVIOUR OF TI6AL4V POWDERS FOR ADDITIVE MANUFACTURING
Fatemeh A. Talebi*. Zobaideh Haydari. Mozhdeh Mehrabi. Jabbar Gardy. Andrew Bayly. Ali Hassanpour.

OC - ROLE OF TEMPERATURE ON THE POLYMERIC POWDERS FLOW PROPERTIES IN SELECTIVE LASER SINTERING
Sina Zinatlou Ajabshir. Diego Barletta. Daniele Sofia. Massimo Poletto*.

OC - THE SPREADING BEHAVIOUR OF STAINLESS STEEL POWDERS FOR ADDITIVE MANUFACTURING
Zobaideh Haydari*. Fatemeh A. Talebi. Jabbar Gardy. Andrew Bayly. Ali Hassanpour.

OC - THE ROLE OF TEMPERATURE AND MOISTURE ON POLYMER MATERIALS FOR ADDITIVE MANUFACTURING, AND THEIR IMPLICATIONS FOR THE PROCESS
Denis Schuetz*. Helena Weingrill.

*Speaker

08:30 - 10:00

T3 - DRYING

VIENA ROOM

OC - INFLUENCE OF DIFFERENT DRYING PROFILES AND CALENDERING LOADS ON MOISTURE CONTENT AND STRUCTURAL PROPERTIES OF PARTICULATE CATHODE LAYERS FOR LITHIUM-ION-BATTERIES

Fabienne Huttner*. Thomas Loellhoefel. Max von Horstig. Julian K. Mayer. Nikolas Paul. Arno Kwade.

OC - EXPERIMENTAL STUDY ON DRYING BAMBOO CHIPS WITH THE DRYING DEVICE THAT REPRODUCES THE DEMONSTRATION FACILITY

Hiroyuki Aso*. Kiyotaka Fuji.

OC - EFFECT OF ROTATION SPEED TO THERMAL DEHYDRATION CHARACTERISTICS OF WASTE GYPSUM PARTICLES IN A CONSTANT VOLUME ROTARY VESSEL

Koichiro Ogata*. Kotetsu Arimura. Hayate Gotoh. Hideo Kawahara. Hiroaki Sano.

OC - CONTINUOUS HIGH-THROUGHPUT SCREENING OF SPRAY-DRIED FORMULATIONS FOR BIOAVAILABILITY ENHANCEMENT

Vojtech Klimsa*. Gabriela Ruphuy Chan. František Štěpánek.

OC - TOWARDS A HIGHER ENERGY DENSITY FOR LITHIUM-ION BATTERY ANODES VIA HIERARCHICALLY STRUCTURED C/SI AGGLOMERATES USING SPRAY-DRYING

Adil Amin*. Stefan Bade. Julia Lyubina. Moritz Loewenich. Hartmut Wiggers. Fatih Özcan. Doris Segets.

08:30 - 10:00

T5 - CRYSTALLIZATION AND PRECIPITATION I

BAHIA ROOM

KN - A CRYSTAL ENGINEERING APPROACH FOR RATIONAL DESIGN OF NOVEL SUSTAINABLE FOOD, AGROCHEMICAL AND PHARMACEUTICAL FORMULATIONS

Elena Simone*. Panayiotis Klitou. Lorenzo Metilli.

OC - MODELLING AND IDENTIFICATION OF MG(OH)2 PRECIPITATION KINETICS FROM HIGHLY CONCENTRATED MG2+ SOLUTIONS

Antonello Raponi*. Francesco Volpe. Salvatore Romano. Giuseppe Battaglia. Andrea Cipollina. Daniele Marchisio. Marco Vanni. Antonio Buffo. Gianluca Boccardo.

OC - PREPARATION OF RARE-EARTHS OXALATES FROM DOUBLE SULFATE SALTS OBTAINED BY SELECTIVE PRECIPITATION OF NI-MH BATTERY LEACHATES

Béatrice Biscans. Boris Guzhov*. Laurent Cassayre. Antoine Barnabe. Nicolas Coppey.

FC - PRODUCTION OF HIGH-TEMPERATURE POLYMER MICROPARTICLES VIA LIQUID-LIQUID PHASE SEPARATION AND PRECIPITATION

Laura Unger. Sybille Fischer. Jochen Schmidt*. Andreas Bück.

FC - SEEDED CRYSTALLIZATION IN A MULTIPHASE CONTINUOUS MICROCRYSTALLIZER

Cedric Devos*. Elena Brozzi. Tom Van Gerven. Simon Kuhn.

FC - POTENTIAL AND LIMITATIONS OF FLUIDIZED BED CRYSTALLIZATION FOR CONTINUOUS ENANTIOSEPARATION

Jonathan Gänsch*. Francesca Cascella. Heike Lorenz. Andreas Seidel-Morgenstern.

*Speaker

08:30 - 10:00

T8 - ORGANIC, INORGANIC AND HYBRIDS NANOPARTICLES

LONDRES ROOM

OC - AMINOPHOSPHINE-BASED CONTINUOUS LIQUID-PHASE SYNTHESIS OF INP QUANTUM DOTS IN CUSTOMIZED TUBULAR FLOW REACTOR

Zhuang Wang*. Doris Segets.

OC - SYNTHESIS AND CATALYTIC APPLICATIONS OF LANTHANUM ALUMINATE PEROVSKITES (LAALO3)

Helir Joseph Muñoz Alvear*. Antonio Gil Bravo. Sofia Korili.

OC - GREEN SYNTHESIS OF HOLLOW STRUCTURES THROUGH THE DECOMPOSITION OF AZO COMPOUNDS INCORPORATED INSIDE POLYMER PARTICLES

Tetsuya Yamamoto*. Kazuya Tsutsumi.

OC - SYNTHESIS AND CHARACTERIZATION OF SELF-ASSEMBLED NANOSTRUCTURED FILMS OF TIO2-CARBON NANOPARTICLES

Gianluigi De Falco*. Mario Commodo. Patrizia Minutolo. Andrea D'Anna.

OC - HYBRID NANOCATALYTIC MATERIALS FOR INDUSTRIAL-SCALE H2 PRODUCTION FROM HCOOH UNDER AMBIENT CONDITIONS

Maria Louloudi*.

08:30 - 10:00

T10 - 3D/4D PRINTING TECHNOLOGY, SINTERING AND ADDITIVE MANUFACTURING AND EQUIPMENT DEVELOPMENTS I

PARIS ROOM

OC - ANALYSIS OF THE POWDER LAYER QUALITY IN THE SELECTIVE LASER SINTERING PROCESS FROM EXPERIMENTS AND DEM MODELLING

Daniele Sofia*. Diego Barletta. Massimo Poletto.

OC - A HOLISTIC SIMULATION WORKFLOW FOR LASER POWDER BED FUSION

Bastien Dietemann*. Tim Najuch. Shoya Mohseni-Mofidi. Alexander Wessel. Alexander Butz. Claas Bierwisch.

OC - DEM SIMULATION OF POLYMERIC POWDERS SPREADING IN SELECTIVE LASER SINTERING AT DIFFERENT TEMPERATURES

Sina Zinatlou Ajabshir*. Colin Hare. Daniele Sofia. Diego Barletta. Massimo Poletto.

OC - ROBOPHARMACIST: AUTOMATIC COMPOUNDING LINE FOR CONTINUOUS MANUFACTURING OF PERSONALIZED MULTI-COMPONENT CAPSULES

Erik Sonntag*. Jan Vrba. František Štěpánek.

OC - POLYMER POWDERS FOR POWDER BED FUSION VIA COLD WET COMMINUTION IN STIRRED MEDIA MILLS

Florentin Tischer*. Jochen Schmidt. Wolfgang Peukert.

*Speaker

08:30 - 10:00

T9 - DISCRETE ELEMENT METHOD AND COUPLED SIMULATIONS IV

CONVENCION ROOM

OC - SIMULATION OF SUSPENSION DRYING VIA CFD-DEM COUPLING

Silas Wolf*. Nane Kühn. Arno Kwade. Carsten Schilde.

OC - DEM SIMULATION STRATEGIES FOR THE FLOW OF DRY COATED POWDERS IN PHARMACEUTICAL DRY POWDER INHALER DEVICES

Francesca Orsola Alfano*. Alberto Di Renzo. Francesco Paolo Di Maio.

OC - MODELLING FLUID-STRUCTURE INTERACTION AND PARTICLE DEPOSITION ON A DEFORMABLE FIBRE USING A COUPLED CFD-DEM FRAMEWORK

Arnav Ajmani*. Carsten Mehring.

OC - DEM-CFD MODELLING OF FLOW RATE UNDER DIFFERENTIAL PRESSURE

Hasan Elmsahli. Reza Baserinia. Csaba Sinka*.

08:30 - 10:00

T8 - CHARACTERIZATION OF NANOPARTICLES I

CARACAS ROOM

OC - THE CONTRIBUTIONS OF NANOPARTICLE TRANSLATIONAL AND ROTATIONAL MOTION TO HEAT TRANSFER ENHANCEMENT INSIDE NANOCHANNELS: A MOLECULAR DYNAMICS STUDY

Edgaras Misiulis. Gediminas Skarbalius*. Algis Džiugys. Robertas Navakas. Rimantas Kačianauskas. Algirdas Maknickas.

OC - CHARACTERISATION OF MAGNESIUM HYDROXIDE FROM HIGHLY CONCENTRATED MGCL2 SOLUTIONS

Salvatore Romano*. Giuseppe Battaglia. Antonello Raponi. Daniele Marchisio. Michele Ciofalo. Alessandro Tamburini. Andrea Cipollina. Giorgio Micale.

OC - IMPACTING THE ONSET OF MICRO-EXPLOSIONS IN NANOPARTICLE FORMATION BY FLAME SPRAY PYROLYSIS BY MEANS OF THE LOCAL PROCESS AND FLOW CONDITIONS

Malte F.B. Stodt*. Udo Fritsching. Johannes Kiefer.

OC - CLASSIFICATION AND CHARACTERIZATION OF GOLD AND SILVER NANOPARTICLES BY SIZE-EXCLUSION CHROMATOGRAPHY

Lukas Gromotka*. Wolfgang Peukert.

FC - HIGH-THROUGHPUT GENERATION OF AIRCRAFT-LIKE SOOT

Georgios Kelesidis*. Una Trivanovic. Sotiris Pratsinis.

FC - BRANCHING INDEX: AN ALTERNATIVE TO CHARACTERIZE CELLULOSE NANO AND MICROFIBERS BY IMAGE ANALYSIS

José Luis Sánchez Salvador*. Cristina Campano. Patricio Lopez-Exposito. M. Concepción Monte. Angeles Blanco. Carlos Negro.

08:30 - 10:00

MEMORIAL SESSION: UGUR TÜZÜN

LA PAZ ROOM

OC - EFFECT OF ELECTRO-CLAMPING FORCE ON ENHANCING THE RESISTANCE TO SHEAR DEFORMATION OF GRANULAR MATERIALS

Mojtaba Ghadiri*. Brunello Formisani.

*Speaker

OC - GRANULAR FLOW IN HOPPERS: FROM THEORY TO PRACTICE
Qijun Zhen. Aibing Yu*.

OC - A CONTRIBUTION TO VISUALIZATION OF INDUSTRIAL PROCESSES BY ELECTRICAL TOMOGRAPHY
Pedro Faia*. Maria Graça Rasteiro. Fernando Garcia.

OC - A NOVEL MODEL FOR LIQUID BRIDGES AND COEFFICIENT OF RESTITUTION IN WET FLUIDISATION
Rafaella Ocone*. Leina Hua. Ning Yang.

OC - UNDERSTANDING SLOW COMPRESSION AND DECOMPRESSION OF FRICTIONLESS/FRICTIONAL SOFT GRANULAR MATTER BY NETWORK ANALYSIS
Kianoosh Taghizadeh*. Stefan Luding. Chao Cheng. Rituparna Basak. Lou Kondic.

OC - DYNAMICALLY STRUCTURED FLUIDIZED BEDS: SCALABLE, HOMOGENEOUS, AND RESPONSIVE MIXING
Victor Francia*. Laurien Vanderwalle. Kaiqiao Wu. Kevin Van Geem. Guy Marin. Marc-Olivier Coppens.

10:00 - 11:00

PLENARY LECTURE - LIDIA MORAWSKA - THE WORLD OF PARTICLES WE EMIT: HOW WELL DO WE UNDERSTAND AND CONTROL IT?

CONVENCION ROOM

THE WORLD OF PARTICLES WE EMIT: HOW WELL DO WE UNDERSTAND AND CONTROL IT?
Lidia Morawska.

11:00 - 11:30
COFFEE BREAK - EXHIBITORS' AREA

11:30 - 13:15

T1 - MECHANICS OF PARTICULATE SOLIDS IV

OSLO ROOM

OC - TENSILE STRENGTH, THE MISSING LINK TO UNDERSTAND POWDER FLOWABILITY
Pablo Garcia-Trinanes*.

OC - MODEL-BASED SCALE-UP OF THE DIE FILLING PROCESS FROM LAB- SCALE TO PRODUCTION-SCALE ROTARY PRESSES
Ann Kathrin Schomberg*. Jan Henrik Finke. Arno Kwade.

OC - EFFECTS OF STAINLESS DISK RELEASE CONDITIONS ON OVERTAKING BEHAVIOR IN THE DISKS FALLING IN AN EXPANDED POLYSTYRENE PARTICLE BED
Mikio Yoshida*. Daichi Kawabata. Hinano Yamada. Atsuko Shimosaka. Yoshiyuki Shirakawa.

OC - ANALYZING AND STRUCTURING SILO FAILURES
Harald Wilms*. Hans Schneider. Christian Dietsche. Holger Boll.

OC - EXPERIMENTAL MEASUREMENTS OF THE PRESSURES EXERTED BY WOOD PELLETS IN A MODEL SILO WITH CORRUGATED STEEL WALLS
Eutiquio Gallego Vazquez*. Jose María Fuentes. Marcos Madrid. Francisco Ayuga.

OC - BIOMASS OFF GASSING AND SELF HEATING
Kenneth Williams*. Aleksej Lavrinec. Aleef Rahman. Fabiano Ximenes. Peter Robinson. Dusan Ilic.

*Speaker

11:30 - 13:15

T2 - MEASUREMENT TECHNIQUES AND INSTRUMENTATION I

MADRID ROOM

KN - SIMULTANEOUS DETERMINATION OF NUMBER-BASED PARTICLE SIZE DISTRIBUTION AND CONCENTRATION BY FORWARD AND SIDEWARD LIGHT SCATTERING OF SINGLE NANO- AND MICROPARTICLES: VALIDATION, MEASUREMENT RANGE, COINCIDENCE AND ESTIMATION OF UNCERTAINTY

Lerche Dietmar*. Holger Woehlecke. Wollik Elia. Martin Hussels.

OC - IMAGE-BASED PARTICLE ANALYSIS VIA DEEP LEARNING

Max Frei*. Einar Kruis.

OC - CHARACTERIZING THE MILLING OF NANOMATERIALS USING DIFFERING ON / IN / AT LINE PROCESS ANALYTICAL TECHNOLOGIES

Stephen Ward-Smith*. Nicole Meulendijks. Alan Ryder. Ad Gerich. Andy Stewart. Christoph Janzen. Noor Al-Rifai. Chandresh Malde. Bart Wuytens.

OC - 2D AND 3D STRUCTURAL CHARACTERIZATION OF COATED PARTICLES

Judith Miriam Friebel*. Lisa Ditscherlein. Ralf Werner Ditscherlein. Urs Peuker.

OC - INLINE MEASUREMENT OF THE FOULING POTENTIAL OF REVERSE OSMOSIS FEED WATER USING DYNAMIC EXTINCTION SPECTROSCOPY

Marc Weirich*. Franziska Blauth. Sergiy Antonyuk.

11:30 - 13:00

T3 - POWDER COMPACTION AND TABLETING

VIENA ROOM

OC - HOW TO PREDICT TABLET PROPERTIES: THE ENDMOST PHARMA CHALLENGE ?

Carlota Mendez Torrecillas*. John Robertson. Ecaterina Bordos.

OC - USE OF JUMP-TESTS FOR THE CHARACTERIZATION OF THE VISCOPLASTIC BEHAVIOR OF PHARMACEUTICAL POWDERS DURING COMPACTION

Pierre Tchoreloff. Vincent Mazel*.

OC - MODELING OF COMPACTIBILITY OF LUBRICATED TABLET FORMULATIONS

Daniel Puckhaber*. Jan Henrik Finke. Sarah David. Mauro Serratoni. Umair Zafar. Edgar John. Michael Juhnke. Arno Kwade.

OC - SIMPLE PREDICTION METHOD OF TABLET CAPPING BY CONTINUOUS DIE WALL STRESS MEASUREMENT

Yusuke Imayoshi*. Shuji Ohsaki. Hideya Nakamura. Satoru Watano

FC - INFLUENCE OF THE DRUG LOAD ON PHARMACEUTICAL BLENDS PROCESSABILITY

Salvatore Pillitteri*. Aurélien Neveu. Filip Francqui.

FC - INVESTIGATING MICROSTRUCTURE AND DISSOLUTION BEHAVIOR OF GRANULATED UREA FERTILIZERS

Kingsly Ambrose*. Camila Jange. Carl Wassgren.

FC - IMPACT OF UNLOADING KINEMATICS ON THE OCCURRENCE OF CAPPING DURING THE COMPACTION OF PHARMACEUTICAL POWDERS

Vincent Mazel*. Joane Meynard. Pierre Tchoreloff. Felipe Amado Becker.

FC - FEEDING AND COMPACTION – DIFFERENTIATION OF DAMAGING INFLUENCES ON COATED PELLETS IN TABLETING MACHINES

Jan Henrik Finke*. Luisa Enders. Lara Stein. Sonja Bauhuber. Gernot Warnke.

*Speaker

FC - EFFECT OF MOISTURE ON PHYSICAL PROPERTIES OF FOOD INGREDIENTS AND THE RESULTING STRENGTH OF COMPACTS
René Rösemeier-Scheumann*. Jan Henrik Finke. Ulrich Bobe. Annabel Bozon. Arno Kwade.

11:30 - 13:05

T5 - CRYSTALLIZATION AND PRECIPITATION II

BAHIA ROOM

KN - DIGITAL STRATEGIES TO TAILOR CRYSTALLIZATION AND PRECIPITATION PROCESSES IN INDUSTRIAL APPLICATIONS – THE ROLE OF RATIONAL PROCESS DESIGN
Lukas Metzger*. Sebastian Meinicke. Thorsten Beierling. Lars Matthes. Matthias Voges. Marion Winkelmann.

OC - PROCESS INTENSIFICATION OF ENERGETICS CRYSTALLIZATION VIA MODEL-FREE QUALITY-BY-CONTROL DIRECT DESIGN AND MODEL-BASED DIGITAL DESIGN APPROACHES
Montgomery Smith*. Monika Neal. Daniel Laky. Wei-Lee Wu. Jaron Mackey. Zoltan Nagy.

OC - DEVELOPMENT OF CONTINUOUS CRYSTALLIZATION PROCESSES
Arne Vancleef*. Tom Van Gerven. Leen C.J. Thomassen. Leen Braeken.

OC - DEVELOPMENT OF ANN CALIBRATION MODEL FOR ESTIMATING XYLOMETAZOLINE HYDROCHLORIDE CONCENTRATION IN CRYSTALLIZATION PROCESS
Matea Gavran*. Srecko Herceg. Josip Sacher. Nenad Bolf. Željka Ujević Andrijić.

FC - EVALUATION USING MACHINE LEARNING IN BATCH AND CONTINUOUS CRYSTALLIZER PROCESSES FOR HYDROCALUMITE FROM CONCENTRATED SEAWATER
Taichi Kumura*. Mikio Yoshida. Masakazu Matsumoto. Yoshiyuki Shirakawa.

11:30 - 13:00

T7 - AEROSOL CHARACTERIZATION AND MEASUREMENT TECHNIQUES

LONDRES ROOM

OC - QUANTITATIVE METHOD OF MASS ASSESSMENT USING TEM GRIDS FORAIRBONE MICROMETRIC PARTICLE EXPOSURE CHARACTERIZATION
Christophe Bressot*. Maiqi Xiang. Martin Morgeneyer. Florian Philippe.

OC - MORPHOLOGY OF SOOT AGGLOMERATES FROM A DIESEL VEHICLE: SPEED AND SIZE EFFECTS
Lapuerta Magín*. Sofía González-Correa. Rosario Ballesteros.

OC - SINGLE PASS TUNNEL TESTING FOR RECIRCULATING VIRUS AEROSOL CONTROL TECHNOLOGIES
Hui Ouyang*. Yuechen Qiao. My Yang. Bernard Olson. Montserrat Torremorell. Chris Hogan. Ian Marabella.

OC - ANALYZING ELECTROSPRAY-GENERATED PARTICLES BY MOBILITY CLASSIFIED MASS SPECTROMETRY
Christian Lübbert*. Wolfgang Peukert.

OC - MASS, SIZE AND SHAPE OF ULTRA-SMALL PARTICLES: PYCNOMETRY ON THE MOLECULAR LEVEL BY MOBILITY-CLASSIFIED MASS SPECTROMETRY (DMA-MS)
Christian Lübbert*. Wolfgang Peukert.

*Speaker

11:30 - 13:00

T10 - 3D/4D PRINTING TECHNOLOGY, SINTERING AND ADDITIVE MANUFACTURING AND EQUIPMENT DEVELOPMENTS II

PARIS ROOM

OC - A WATER STORING, FLOWABLE GRANULAR MATERIAL FOR CONCRETE 3D PRINTING
Leigh Duncan Hamilton*. Harald Zetzener. Arno Kwade.

OC - GENERATION OF MAGNETIC AND PLASMONIC PARTS BY LASER POWDER BED FUSION FROM NANO-ADDITIVATED POLYMER POWDERS
Carlos Doñate-Buendia*. Alexander Sommereyns. Michael Schmidt. Stephan Barcikowski. Bilal Gökce.

OC - HEAT TRANSFER MODELLING AND IN-SITU EXPERIMENTAL VALIDATION OF SINGLE-LAYER SELECTIVE LASER SINTERING OF POLYAMIDE POWDERS
Balaji Soundararajan*. Daniele Sofia. Diego Barletta. Massimo Poletto.

FC - ENHANCED POWDER DEPOSITION THROUGH CHARGE CONTROL SUBSTANCES IN ADDITIVE MANUFACTURING
Björn Düsenberg. Jochen Schmidt. Nicolas Hesse*. Andreas Bück.

FC - ENSURING PROCESSABILITY IN ADDITIVE MANUFACTURING: METROLOGICAL CHALLENGES IN ASSESSING QUALITY OF AGED POLYMER POWDER FEEDSTOCKS
Nicolas Hesse*. Wolfgang Peukert. Jochen Schmidt.

FC - CONCRETE PARTS FROM THE POWDER BED – MATERIAL MODIFICATION FOR SELECTIVE CEMENT ACTIVATION
Niklas Meier*. Harald Zetzener. Arno Kwade.

11:30 - 13:00

T9 - DISCRETE ELEMENT METHOD AND COUPLED SIMULATIONS V

CONVENCION ROOM

OC - QUANTIFICATION OF THE BEAD INDUCED MECHANICAL STRESS ON FILAMENTOUS BIOAGGLOMERATES VIA COUPLED CFD-DEM SIMULATIONS
Marcel Schrader*. Kathrin Schrinner. Ingo Kampen. Carsten Schilde. Rainer Krull. Arno Kwade.

OC - SPREADING BEHAVIOUR OF PARTICLE PILES UNDER VIBRATION: EXPERIMENTS AND DEM SIMULATIONS (PILES)
Fabian Krull*. Sergiy Antonyuk. , Ghita Marouazi. Sébastien Kiesgen De Richter.

OC - NUMERICAL SIMULATION OF THE RHEOLOGICAL BEHAVIOUR OF MICROPARTICULATE SUSPENSIONS WITH UNRESOLVED COUPLED CFD-DEM- SIMULATIONS
Dimitri Ivanov*. Mahmoud Eslami Pirharati. Inka Mai. Carsten Schilde.

OC - DEM SIMULATION OF COHESIVE PARTICLES USING SCALED-UP PARTICLE MODEL
Kimiaki Washino*. Yuze Hu. Ei Chan. Takuya Tsuji. Toshitsugu Tanaka.

FC - INVESTIGATING THE EFFECT OF INTERPARTICLE INTERACTIONS ON THE ELASTIC PROPERTIES OF ASPHERICAL PARTICLE NETWORKS
Narayani Kelkar*. Jyoti Seth.

FC - A DISCRETE ELEMENT METHOD BASED DIGITAL TWIN FOR EVALUATING TABLETING PROCESS PERFORMANCE
Stefan Pantaleev*. Ioannis Fragkopoulos.

*Speaker

FC - DEM SIMULATION OF ELASTO-PLASTIC POWDER COMPRESSION PROCESS
Takeru Yano*. Shuji Ohsaki. Hideya Nakamura. Satoru Watano.

11:30 - 13:00

T8 - CHARACTERIZATION OF NANOPARTICLES II

CARACAS ROOM

OC - SINTERING RATE OF NICKEL NANOPARTICLES BY MOLECULAR DYNAMICS
Reza Kholghy. Hossein Rahbar*. Eirini Goudeli.

OC - MICROSTRUCTURAL STABILITY ENHANCEMENT OF HIGH-TEMPERATURE COMPOSITE PHASE CHANGE MATERIALS USING NANOPARTICLES
Helena Navarro*. Argyrios Anagnostopoulos. Yulong Ding.

OC - ROLE OF ELECTRIC FIELDS IN THE IN-FLAME DEPOSITION OF CARBON NANOPARTICLE FILMS
Arianna Parisi*. Rafaella Grifo. Gianluigi De Falco. Mariano Sirignano. Patrizia Minutolo. Mario Commodo. Claudia Carotenuto. Francesco Di Natale.

OC - SYSTEMATIC STUDY OF WET MILLING: EFFECT OF SURFACTANTS ON THE STABILITY, BREAKAGE KINETICS, AND DISSOLUTION PROFILE OF DRUG NANOCRYSTALS
Filip Hládek*. Stanislav Chvíla. Ondrej Navratil. Martin Balouch. František Štěpánek.

FC - SELECTION OF NANOPARTICLES AS FILLERS IN SUSTAINABLE MIXED MATRIX MEMBRANES
Clara Casado-Coterillo*. Andrea Torre-Celeizabal. Aitor Marcos-Madrazo. Aurora Garea. Angel Irabien.

11:30 - 13:00

MEMORIAL SESSION: ROLF K. ECKHOFF

LA PAZ ROOM

ROLF K. ECKHOFF - IN MEMORIAM
Trygve Skjold*. Kees Van Wingerden*.

KN - LESSONS LEARNED FROM TESTING OF DUST EXPLOSION PROTECTIVE DEVICES AND SYSTEMS
Kees Van Wingerden*.

KN - STRENGTH OF KNOWLEDGE IN RISK ASSESSMENTS FOR DUST EXPLOSIONS
Trygve Skjold*.

OC - INFLUENCE OF BENDS IN THE FUNCTIONALITY OF PASSIVE EXPLOSION ISOLATION VALVES
Ignacio Garrido Ceca*.

OC - REVIEWING PARTICLE SIZE INFLUENCE IN BIOMASS FLAMMABILITY AND EXPLOSIBILITY
Isabel Amez Arenillas*. Blanca Castells Somoza. Nieves Fernandez-Anez. Alberto Tascón Vegas. David León Ruiz. Javier García Torrent.

13:00 - 14:30
LUNCH - DUQUE ROOM & TERRACE

*Speaker

14:30 - 15:30

PLENARY LECTURE - JÜRGEN DAHLHAUS - ADVANCES IN SOLIDS PROCESSING RESEARCH AND MODELING TO ADDRESS INDUSTRIAL CHALLENGES

CONVENCION ROOM

ADVANCES IN SOLIDS PROCESSING RESEARCH AND MODELING TO ADDRESS INDUSTRIAL CHALLENGES
Jürgen Dahlhaus.

15:30 - 16:00

COFFEE BREAK - EXHIBITORS' AREA

16:00 - 17:45

T2 - PARTICLE MORPHOLOGY AND SIZE

OSLO ROOM

OC - MULTIDIMENSIONAL CHARACTERIZATION OF PATCHY PARTICLES
Robin Klupp Taylor*. Andreas Völkl.

OC - MODELLING MORPHOLOGY AND FIBRILLATION OF LIGNOCELLULOSIC MICRO/NANOFIBERS DURING MECHANICAL ISOLATION USING ARTIFICIAL NEURAL NETWORKS
Marc Delgado-Aguilar*. Alexandre Ferreira Santos. Giovana Signori Iamin. Marcos Lucio Corazza. Roberto Aguado. Joaquim Agustí Tarrés Farrés.

OC -METHODS FROM MACHINE LEARNING FOR THE STRUCTURAL ANALYSIS OF LI-ION ELECTRODE PARTICLES
Donal Finegan. Kandler Smith. Volker Schmidt. Orkun Furat*.

OC - MORPHOLOGICAL STUDY OF MICROAGGLOMERATES OBTAINED BY SPHERICAL AGGLOMERATION USING X-RAY MICROTOMOGRAPHY
Julia Schreier*. Ulrich Bröckel.

OC - A PARTICLE SHAPE-BASED SEGMENTATION METHOD TO CHARACTERIZE SPRAY DRIED MATERIALS BY X-RAY MICROTOMOGRAPHY
Nora Alina Ruprecht*. Heike Teichmann. Reinhard Kohlus.

FC - DRUG PARTICLES IN POLYMERIC EXTRUDATES: SIZE AND ORIENTATION STUDIES VIA SCANNING RAMAN-MICROSCOPY
Marius Tidau*. Jan Henrik Finke.

FC - INFLUENCE OF CARBON BINDER DOMAIN ON THE PERFORMANCE OF LITHIUM-ION BATTERIES: IMPACT OF SIZE AND FRACTAL DIMENSION
Anshuman Chauhan*.

FC - VOLUME AND NUMBER AVERAGE SIZES OF MG(OH)2 PARTICLES FROM CONCENTRATED MG2+ CONTAINING SOLUTIONS
Giuseppe Battaglia. Salvatore Romano*. Antonello Raponi. Daniele Marchisio. Michele Ciofalo. Alessandro Tamburini. Andrea Cipollina. Giorgio Micale.

*Speaker

16:00 - 17:30

T2 - MEASUREMENT TECHNIQUES AND INSTRUMENTATION II

MADRID ROOM

OC - USING JENIKE SHEAR CELL TO MEASURE WALL FRICTION OF PARTICLES IMMERGED IN WATER
Haim Kalman*. Dmitry Portnikov. Galit Weidenfeld.

OC - MULTIPLE SCATTERING EFFECTS ON INTERCEPT, SIZE, POLYDISPERSITY INDEX, AND INTENSITY FOR PARALLEL (VV) AND PERPENDICULAR (VH) POLARIZATION DETECTION IN PHOTON CORRELATION SPECTROSCOPY
Ragy Ragheb*. Ulf Nobbmann.

OC - INSIGHTS IN THE REHYDRATION KINETICS OF POWDERED FOOD INGREDIENTS THROUGH BROADBAND ACOUSTIC RESONANCE DISSOLUTION SPECTROSCOPY (BARDS)
Isabelle Deleris*.

OC - DEVELOPMENT AND APPLICATION OF A NOVEL SAMPLING FUNNEL FOR CONTINUOUS IN-LINE PARTICLE SIZE MEASUREMENT IN DRY GRANULATION BY ROLLER COMPACTION
Marcus Weidemann*. Manfred Felter. Eberhard Schmidt.

OC - NOVEL APPROACHES FOR MULTIDIMENSIONAL PARTICLE PROPERTY CHARACTERIZATION BY MEANS OF ANALYTICAL ULTRACENTRIFUGATION
Johannes Walter*. Wolfgang Peukert.

FC - ADVANCES IN DYNAMIC LIGHT SCATTERING
Diogo Fernandes. Stephen Ward-Smith*.

16:00 - 17:30

T4 - HEAT/MASS TRANSFER PHENOMENA AND THERMAL CONVERSION SYSTEMS

VIENA ROOM

KN - RESOLVING GENERATION OF REDUCTION GAS IN THE RACEWAY OF A BLAST FURNACE THROUGH A COUPLED EULER-LAGRANGE APPROACH
Bernhard Peters*. Navid Aminnia. Xavier Besseron.

OC - PACKED-BED BASED THERMOCHEMICAL ENERGY STORAGE SYSTEM
Dongyu Meng*. Jie Chen. Yulong Ding.

OC - STRATIFICATION IN A MILDLY FLUIDIZED BED DUE TO THERMAL INHOMOGENEITIES
Jason Schirck*. Krutika Appaswamy. Aaron Morris.

OC - HEAT TRANSFER AUGMENTATION IN HORIZONTAL DILUTE-PHASE PNEUMATIC CONVEYING
Arnon Ratzabi*. Haim Kalman. Gennady Ziskind.

FC - MODELLING ENTRAINED-FLOW SLAGGING GASIFICATION OF SOLID FUELS WITH PARTICLE DEPOSITION AND NEAR-WALL SEGREGATION
Maurizio Troiano*. Fabio Montagnaro. Roberto Solimene. Piero Salatino.

*Speaker

16:00 - 17:40

T5 - HYDROGEL AND AEROGEL PARTICLES AND APPLICATIONS, AND ENCAPSULATION

BAHIA ROOM

KN - HYDROPHOBIC NANOCELLULOSE-BASED AEROGELS FOR SELECTIVE OIL REMOVAL: EFFECTS ON AEROGEL CHARACTERISTICS AND ABSORPTION PERFORMANCE

Marc Delgado-Aguilar*. Joaquim Agustí Tarrés Farrés. Helena Oliver-Ortega. Roberto Aguado. M. Àngels Pèlach.

OC - GEL POINT SIMPLIFICATIONS AS A TOOL TO EVALUATE DISPERSION DEGREE IN NANOCELLULOSE SUSPENSIONS AND ITS APPLICATION IN PAPERMAKING

Jose Luis Sanchez-Salvador*. Ana Balea. Carlos Negro. M. Concepción Monte. Angeles Blanco.

OC - INFLUENCE OF PARTICLE STRUCTURE ON LIPID OXIDATION STABILITY OF PLANT-BASED MILK POWDERS

Teresa Kurtz*. Klara Haas. Olivier Schafer. Stefan Heinrich. Vincent Meunier.

OC - FABRICATION OF ORGANIC-INORGANIC HYBRID MICROCAPSULES AND THEIR APPLICATIONS AS DRUG CARRIERS

Junichi Ida*. Yuichi Shibata. Fumio Kurayama. Tatsushi Matsuyama.

OC - ANIMAL-FREE AND ENVIRONMENTALLY FRIENDLY PERFUME MICROCAPSULES

Dan Baiocco*. Zhibing Zhang.

FC - NANOENCAPSULATION OF 5-O-CAFFEOYLQUINIC ACID BY SPRAY DRYING

Daniel Tobón Vélez*. Christine Frances. Mallorie Tourbin.

FC - DETERGENTS ADDITIVES ENCAPSULATION USING SILICA NANOPARTICLES WITH A METAL COATING

Ismael Lobato Guarnido*. German Luzón González. Francisco Ríos Ruiz. Ana Isabel García López. Mercedes Fernández Serrano.

16:00 - 17:30

T7 - AEROSOL PHYSICS AND CHEMISTRY AND INDUSTRIAL APPLICATIONS I

LONDRES ROOM

KN - CAN WE TUNE THE PARTICLE PROPERTIES BY FLAME SPRAY PYROLYSIS FOR HIGH-END PHOTOCATALYSIS? CHALLENGES AND OPORTUNITIES

Yiannis Deligiannakis*. Areti Zindrou. Asterios Mantzanis. Maria Solakidou.

OC - NOVEL METHOD FOR IDENTIFYING EVAPORATING, CONDENSING, AND REFLECTING ATOMS AT THE ARGON LIQUID SURFACE IN MOLECULAR DYNAMICS SIMULATIONS

Gediminas Skarbalius*. Algis Džiugys. Edgaras Misiulis. Robertas Navakas. Rimantas Kačianauskas. Arnas Kačeniauskas.

OC - EXPLORATION OF AGGREGATE MOBILITY - SIZE DEPENDENCE AND FLUID PENETRATION DEPTH OVER A WIDE RANGE OF FRACTAL DIMENSIONS USING STOKESIAN DYNAMICS

Narayani Kelkar*. Ashwin Amalaruban. Jayant Krishnan. S. Anand. Jyoti Seth. Y.S. Mayya.

OC - ESTIMATION OF SHAPE FACTORS FOR FRACTAL AGGREGATES USING HYDRODYNAMICS SIMULATION

Jayant Krishan*. Anand Srinivasan. Kapil Deo Singh. Mukund S Kulkarni. Jyoti Seth. Yelia S. Mayya.

FC - A CFD-DEM MODEL FOR PREDICTING THE INFLUENCE OF NASAL HAIR ON THE AIR-PARTICLE DYNAMICS IN NASAL CAVITY

Vinicius Daroz*. Ahmadreza Haghnegahdar. Rahul Bharadwaj. Yu Feng.

*Speaker

16:00 - 17:30

T10 - PARTICULATE COMPOSITES, NOVEL TECHNIQUES, ADVANCED MAT., INDUSTRIAL APPLICATIONS

PARIS ROOM

OC - CONTINUOUS FLOW GRAM-SCALE SYNTHESIS OF PLASMONIC PIGMENTS WITH TAILORED COLOUR
Robin Klupp Taylor. Andreas Völkl*.

OC - CONTINUOUS AQUEOUS TWO-PHASE FLOTATION (ATPF) FOR ENZYME PURIFICATION
Lucas Jakob*. Hermann Nirschl.

OC - SYNTHESIS OF NANOCOMPOSITE COATINGS VIA COMBINING AN ARC REACTOR AND A MAGNETRON SPUTTER DEVICE
Einar Kruis*. Q. Fu. D. Kokalj. D. Stangier. W. Tillmann.

OC - 3D STRUCTURAL CHARACTERIZATION AND THERMAL CYCLABILITY STUDY OF A COMPOSITE SALT HYDRATE FOR THERMOCHEMICAL ENERGY STORAGE APPLICATIONS
Jie Chen*. Boyang Zou. Hongkun Ma. Yulong Ding.

16:00 - 17:30

T9 - DISCRETE ELEMENT METHOD AND COUPLED SIMULATIONS VI

CONVENCION ROOM

KN - CFD-DEM SIMULATION OF PARTICLE SEPARATION PROCESSES AND EXPERIMENTAL METHODS FOR THE PARAMETER ESTIMATION AND VALIDATION
Sergiy Antonyuk*.

OC - PRECISION OF VALIDATED CRUSHED-ROCK FLOW BEHAVIOR IN FRONT OF A BULLDOZER BLADE USING ANALYTICAL, DISCRETE-ELEMENT METHOD (DEM) AND REDUCED-ORDER MODEL
Leon White Nogueira. Martin Roberge. Sunil Acharya. Guillaume Boily. Rahul Bharadwaj*.

OC - SIMULATION OF PARTICLE EROSION IN DEM
Rosario Capozza*. Kevin J. Hanley.

OC - ADDRESSING CHALLENGES IN ACCELERATION OF DISCRETE ELEMENT METHOD (DEM) SIMULATIONS OF COHESIVE POWDERS
Andrew Bayly*. Ali Hassanpour. Yi He.

16:00 - 17:30

T8 - CHARACTERIZATION OF NANOPARTICLES III

CARACAS ROOM

OC - SIZE AND COMPOSITION CONTROLLED SYNTHESIS OF SILVER GOLD ALLOY NANOPARTICLES
Nabi E. Traore*. Lukas Gromotka. Paola Cardenas. Johannes Walter. Wolfgang Peukert.

OC - LIQUID CHROMATOGRAPHIC SEPARATION OF CARBON DOTS
Fabian Schilfarth*. Cornelia Damm. Wolfgang Peukert.

OC - THE USE OF ADVANCED FLUORESCENT IMAGING FOR EVALUATION OF THE STABILIZER CHOICE AND ITS EFFECT ON CYTOTOXICITY, IMMUNOGENICITY, AND BIOACTIVITY OF CURCUMIN NANOCRYSTALS
Denisa Lizonova. Filip Hládek. Stanislav Chvíla. Adam Baláž. Štěpánka Staňková. František Štěpánek*.

*Speaker

OC - FUNDAMENTAL UNDERSTANDINGS OF COLLOIDAL TIO2 NANOPARTICLES: RELATIONSHIPS BETWEEN SURFACE LIGAND STRUCTURE AND DISPERSIBILITY
Shohei Yamashita*. Hidehiro Kamiya. Yohei Okada.

16:00 - 17:30

JE - MULTIDIMENSIONAL PARTICLE PROPERTIES: CHARACTERIZATION, SEPARATION, APPLICATION

LA PAZ ROOM

OC - MULTIDIMENSIONAL DISTRIBUTIONS AND THEIR SEPARATION
Wolfgang Peukert*. Uwe Frank. Johannes Walter.

OC - NOVEL CONCEPTS IN EQUIPMENT AND PROCESS ENGINEERING FOR HIGHLY SPECIFIC AND MULTIDIMENSIONAL SEPARATION OF FINE PARTICLE SYSTEMS
Einar Kruis*. J. Thöming. Arno Kwade. A. Dietzel. Alfred Weber. Hermann Nirschl. Wolfgang Peukert. Franzreb M.

OC - AN INTRODUCTION TO MULTIDIMENSIONAL SEPARATION FUNCTIONS IN PARTICLE TECHNOLOGY
Edgar Schach*. Ralf Werner Ditscherlein. Urs Peuker.

OC - HIGHLY SPECIFIC AND MULTIDIMENSIONAL SEPARATION OF FINE PARTICLE SYSTEMS WITH TECHNICAL RELEVANCE: INFLUENCING THE SEPARATION FEATURE
Doris Segets*. Sergiy Antonyuk. Sandra Breitung-Faes. Georg Garnweitner. Urs Peuker.

OC - OPTIMAL FIBER FRACTIONATION FOR WOOD-BASED BIOREFINERIES
Thomas Schmid. Stefan Radl*.

OC - MGCL2·6H2O BASED COMPOSITE THERMOCHEMICAL MATERIALS – FORMULATION, MANUFACTURING AND PERFORMANCE ENHANCEMENT
Hongkun Ma*. Boyang Zou. Jie Chen. Yulong Ding.

17:45 - 19:00

POSTER SESSION - T5. PARTICLE FORMATION AND DESIGN

BAHIA ROOM

PO - EFFECT OF COLOR POWDER TO MITIGATE PHOTOINHIBITION OF NITRIFYING BACTERIA UNDER STRONG LIGHT IRRADIATION
Yuhi Kubo*. Kento Nishi. Tatsushi Matsuyama. Junichi Ida.

PO - INTERACTION OF NANOFIBRILLATED CELLULOSE WITH PAPERMAKING ADDITIVES
Elena de la Fuente González*. Carlos Negro. Angeles Blanco. Roberto Villar-Méndez.

PO - CONTROLLING PARTICLE PROPERTIES BY AN INTEGRATED RECYCLE- LOOP WITH A HIGH SHEAR ENVIRONMENT DURING THE ANTI-SOLVENT CRYSTALLIZATION OF ACETYLSALICYLIC ACID
Nele Merkelbach*. Arne Vancleef. Leen Braeken.

17:35 - 19:00

POSTER SESSION - T7. AEROSOL PARTICLES

LONDRES ROOM

PO - DEVELOPING AFFORDABLE NANO-BIOSENSORS FOR THERAPEUTIC DRUG MONITORING OF ANTIBIOTICS
Haipeng Li*. Georgios Sotiriou.

*Speaker

PO - SIZE-DEPENDENT PENETRATION OF AEROSOL PARTICLES DURING SIMULATED EXHALATION THROUGH THE FACEMASKS AND RESPIRATORS
Tomasz Sosnowski*.

17:30 - 19:00

POSTER SESSION - T10. STED* IN PARTICLE-BASED MATERIALS AND PRODUCTS

PARIS ROOM

PO - PERSONALIZED DOSE COMBINATIONS: NEW FLEXIBLE ALTERNATIVE DOSAGE FORM TO FIXED-DOSE COMBINATIONS
Erik Sonntag*. Elizaveta Mutylo. František Štěpánek.

PO - PRODUCTION OF GLASS FLAKE REINFORCED PBT-PC COMPOSITES VIA CO-COMMINUTION IN A STIRRED MEDIA MILL
Björn Düsenberg*. Julian Esper. Jochen Schmidt. Wolfgang Peukert. Andreas Bück.

17:30 - 19:00

POSTER SESSION - T9. MODELLING AND SIMULATION

CONVENCION ROOM

PO - DEVELOPMENT OF A HYBRID MODEL USING EVOLUTIONARY APPROACH IN PARTICLE TECHNOLOGY
Somayeh Hosseinhahsemi*.

PO - AN OPEN-SOURCE FRAMEWORK FOR DYNAMIC FLOWSHEET SIMULATION OF SOLIDS
Vasyl Skorych*. Stefan Heinrich.

PO - MOBILITY REDUCTION FACTOR ON PARTICLE DYNAMICS IN A NEMATIC FLUID
Deyvi Alan Parientes Sánchez*. Aldo Acevedo-Rullán.

PO - DENSE SUSPENSION RHEOLOGY: FROM SPHERES TO RODS
Alexander Robertson*. Christopher Ness.

PO - DEM ANALYSIS OF MIXING PERFORMANCE OF COHESIVE POWDERS IN A HIGH SHEAR MIXER
Abul Hassan Syed. Hasan Elmsahli. Csaba Sinka*.

PO - DEVELOPMENT OF ULTRA-FAST COMPUTING METHOD FOR POWDER MIXING PROCESS
Hideya Nakamura. Shuji Ohsaki. Satoru Watano. , Naoki Kishida*.

PO - DISPERSING CARBON BLACK IN CATHODE SLURRIES – A NUMERICAL APPROACH
Felix-Tom Möhlen*. Benedikt Finke. Julian Mayer. Carsten Schilde. Arno Kwade.

PO - A SEMI-RESOLVED CFD-DEM METHOD FOR THE SIMULATION OF PARTICLE SYSTEMS WITH LARGE SIZE RATIOS
Hanqiao Che. Kit Windows-yule. Dominik Werner*. Catherine O'Sullivan. Jonathan Seville.

PO - DEM MODELLING OF SWELLING OF GRAINS
Domenica Braile*. Chuan-Yu Wu. Colin Hare.

PO - COMPUTATIONAL FLUID DYNAMICS SIMULATION OF A CONTINUOUS SPIN FREEZING PROCESS IN SINGLE VIAL UNIT
Isar Charmchi*. Thomas De Beer. Ashish Kumar.

*Speaker

PO - CALIBRATION OF CFD-DEM HEAT TRANSFER MODEL USING PACKED BED EXPERIMENTS
Aman Rastogi*. Andreas Aigner. Christoph Goniva. Colin Hare. Vincenzino Vivacqua.

PO - INVESTIGATION OF COLLISION MECHANISMS OF FINE PARTICLES WITH POROUS SURFACES DURING COLD SPRAYING
Olha Aleksieieva*. Andriy Toporov. Pavlo Tretiakov. Mustafa Bozoglu. Sergiy Antonyuk.

PO - MODEL OF PARTICLES INTERACTION IN ROTARY KILN
Martin Mulenko*. Jan Skocilas. Mehmet Ayas.

PO - HIGH-FIDELITY CFD-DEM SIMULATION OF A CAPSULE-BASED DRY POWDER INHALER
Benedict Benque*. Johannes Khinast.

PO - DISCRETE ELEMENT MODELLING FOR DOSING OPERATION - MODEL CALIBRATION AND VALIDATION
Thomas Forgber*. Johan Remmelgas. Elisabeth Fink. Rakulan Sivanesapillai. Adrian Dobrowolski. Johannes G. Khinast.

PO - SECOND-ORDER MOMENT METHOD OF KINETIC THEORY OF GRANULAR FLOW FOR PARTICLE SIMULATIONS IN THE EULERIAN FRAMEWORK
Dan Sun*.

17:30 - 19:00

POSTER SESSION - T8. NANOPARTICLES: PRODUCTION, CHARACT. AND APPLICATIONS

CARACAS ROOM

PO - FACILE SYNTHESIS OF POLY ACRYLIC ACID (PAA) MODIFIED INORGANIC NANOPARTICLES (INPS) USING IN SITU METHOD
Sota Morishita*. Haruna Miyake. Yuito Narita. Tatsushi Matsuyama. Junichi Ida.

PO - PRODUCTION OF LIGNIN NANOPARTICLES FROM OF KRAFT BLACK LIQUOR BY SOLVENT EXCHANGE PROCESS
Licínio Gando-Ferreira*. Manorma Sharma. Patrícia Alves.

PO - MAGNETIC DELIVERY AND CONTROLLED RELEASE BY MAGNETOLIPOSOMES
Denisa Lizonova*. Lukáš Kamenský. Karolína Slonková. Martin Balouch. Aleš Zadražil. František Štěpánek.

PO - ASSESSMENT OF THE RHEOLOGICAL BEHAVIOUR OF CATIONIC MICRO/NANOFIBRILLATED CELLULOSE OBTAINED BY TWO DISTINCT CATIONIZATION METHODS
Paulo Ferreira*. Jorge Pedrosa. Maria Graça Rasteiro. Carlos Neto.

PO - SAWDUST AS A RAW MATERIAL FOR NANOCELLULOSE PRODUCTION BY MEANS OF BLEACHING
Ana Balea*. Elena de la Fuente González. Carlos Negro. Guillermo del Barco. Angeles Blanco.

PO - NANOSCALE ZERO VALENT IRON, A USEFUL TOOL FOR SOIL REMEDIATION
M. Gil-Diaz. J. Alonso. S. Diez-Pascual. M.Carmen Lobo Bedmar*.

PO - IRON NANOPARTICLES FOR DECONTAMINATION OF HG-POLLUTED WATERS
M. Gil-Diaz. J. Rodriguez-Alonso. C.A. Maiotte. R. Millán. M.Carmen Lobo Bedmar*.

PO - COMPARISON OF PHOTOCATALYTIC ACTIVITY OF ZNO PARTICLES WITH DIFFERENT MORPHOLOGIES FOR PERSISTENT ORGANIC POLLUTANTS (POPS) DEGRADATION.
Yuito Narita*. Kento Nishi. Tatsushi Matsuyama. Junichi Ida.

*Speaker

PO - GRAPHENE ENHANCED COMPOSITE PHASE CHANGE MATERIALS FOR HIGH PERFORMANCE EV BATTERY THERMAL MANAGEMENT
Xuefeng Lin*. Yanqi Zhao. Yulong Ding.

PO - NANOCELLULOSES AS CATALYSTS FOR THE REMOVAL OF RECALCITRANT CONTAMINANTS FROM WASTEWATERS
M. Concepción Monte*. Alejandro Márquez . Noemi Merayo. Angeles Blanco. Carlos Negro.

PO - INFLUENCE OF NANOENCAPSULATED ESSENTIAL OILS ON THE BROILER'S PRODUCTIVE PARAMETERS
Gilmar Mendoza*. Joel Valverde. Yaceni Aguilar.

PO - ACTIVATED CARBON/FE3O4@CAO AS A NOVEL NANO-CATALYST TO PRODUCE BIODIESEL FROM SUNFLOWER OIL
Sara Almasi*. Barat Ghobadian. Masoud Dehghani-Soufi. Babak Kakavandi. Joëlle Aubin.

17:35 - 19:00

POSTER SESSION - JE. MULTIDIMENSIONAL PARTICLE PROPERTIES: CHARACTERIZATION, SEPARATION, APPLICATION

LA PAZ ROOM

PO - SPP2045 – A9 – FRACTIONATION OF NANOPARTICLES BY PREPARATIVE GEL ELECTROPHORESIS
Matthäus Barasinski*. Georg Garnweitner.

PO - MODELING OF NANOPARTICLE FRACTIONATION IN TUBULAR CENTRIFUGES INVOLVING ARBITRARILY SHAPED PARTICLES
Marvin Winkler*. Marco Gleiss. Hermann Nirschl.

PO - MULTIDIMENSIONAL SEPARATION BY MAGNETIC SEEDED FILTRATION
Frank Rhein*. Hermann Nirschl.

PO - COMPARATIVE STUDY ON THE DETERMINISTIC-HYDRODYNAMIC SIZE, SHAPE AND DENSITY FRACTIONATION OF POLYDISPERSE FINE PARTICLE SYSTEMS
Simon Raoul Reinecke*. Sebastian Blahout. Jeanette Hussong. Harald Kruggel-Emden.

PO - MULTIDIMENSIONAL AND CORRELATIVE CHARACTERIZATION OF NANOPARTICLES
Stefan Neumann*. Azita Rezvani. Laura Kuger. Carsten-Rene Arlt. Matthias Franzreb. Doris Segets. David Rafaja.

PO - DESIGNING CLASSIFYING AERODYNAMIC LENSES FOR MULTI- DIMENSIONAL FRACTIONIZATION
Matthias Masuhr*. Einar Kruis.

PO - PREDICTION OF MINERALOGICAL PARTICLE COMPOSITION USING CT DATA AND R-VINE COPULAS
Tom Kirstein*. Kai Bachmann. Orkun Furat.
Jens Gutzmer. Thomas Leißner. Urs Peuker. Volker Schmidt.

PO - MULTIDIMFLOT - MULTIDIMENSIONAL SEPARATION OF ULTRAFINE PARTICLES USING A MECHANICAL FLOTATION CELL COMBINED WITH FROTH FRACTIONATION
Johanna Sandbrink*. Martin Rudolph.

PO - CONTINUOUS PARTICLE FRACTINATION USING CROSSFLOW WITH A SUPERIMPOSED ELECTRICAL FIELD
Simon Paas*. Philipp Loesch. P Kai Nikolaus. Sergiy Antonyuk.

PO - FREQUENCY-MODULATED DIELECTROPHORETIC PARTICLE CHROMATOGRAPHY
Jasper Giesler*. Georg Pesch. Michael Baune. Jorg Thöming.

*Speaker

PO - SELECTIVE PARTICLE SEPARATION AT LIQUID-LIQUID INTERFACES
Claudia Kerstin Heilmann*. Urs Peuker.

PO - 3D ANALYSIS OF EQUALLY X-RAY ATTENUATING MINERALOGICAL PHASES UTILIZING A CORRELATIVE TOMOGRAPHIC WORKFLOW ACROSS MULTIPLE LENGTH SCALES
Ralf Werner Ditscherlein. Silvan Englisch. Tom Kirstein. Leonard Hansen. Orkun Furat. Alfred Weber. Thomas Leißner. Volker Schmidt. Erdmann Spiecker. Urs Peuker. Edgar Schach*.

PO - AGGREGATION CONTROLLING FACTORS IN A BINARY COLLOIDAL DISPERSION OF NANOPARTICLES FOR 2-DIMENSIONAL SEPARATION BY SELECTIVE AGGLOMERATION
Azita Rezvani*. Doris Segets.

PO - MULTIDIMENSIONAL SORTING OF MIXED MICROPARTICLES IN A MESH- BASED DIELECTROPHORETIC FILTER
Laura Weirauch*. Michael Baune. Georg Pesch. Jorg Thöming.

PO - TWO-DIMENSIONAL PARTICLE SEPARATION IN SUSPENSIONS WITH HIGH SOLID FRACTION USING HIGH-THROUGHPUT MICROSYSTEMS - EXPERIMENTS AND SIMULATIONS
Maike Sophie Wullenweber*. Jonathan Kottmeier. Ingo Kampen. Andreas Dietzel. Arno Kwade.

PO - EFFECT OF THE CONDUCTIVE CARBON BLACK AND POLYMERIC BINDER INTERACTIONS ON THE PARTICULATE STRUCTURE OF LITHIUM-ION-BATTERY CATHODES
Max von Horstig*. Thomas Loellhoefel. Fabienne Huttner. Julian K. Mayer. Nikolas Paul. Arno Kwade.

PO - THE CENTRIFUGAL DIFFERENTIAL MOBILITY ANALYZER (CDMA): A NEW DEVICE FOR MULTIDIMENSIONAL PARTICLE CHARACTERIZATION
Hans-Joachim Schmidt*. Torben Rüther. David Rasche. Stefen Jesinghausen.

PO - SELECTIVE PARTICLE FRACTIONATION IN SUPERIMPOSED ACOUSTIC AND ELECTRIC FIELDS
Krischan Sandmann*. Udo Fritsching.

THURSDAY SEPTEMBER 22

08:30 - 10:00

T2 - INTER-PARTICLE FORCE CHARACTERIZATION

OSLO ROOM

KN - MONITORING PARTICLE INTERACTIONS IN HETEROGENEOUS PROCESSES WITH FBRM
Elena de la Fuente González*. Carlos Manuel Negro Alvarez. Angeles Blanco.

OC - FORMATION AND STABILITY OF PARTICLE-BUBBLE HETEROCOAGULATES CONTAINING POORLY WETTED ALUMINA PARTICLES INVESTIGATED BY DYNAMIC IMAGE ANALYSIS AND ATOMIC FORCE MICROSCOPY
Jan Nicklas*. Urs Peuker.

OC - TENSOR-BASED, CONTACT-MODEL-AGNOSTIC APPROACH TO RECONSTRUCTION OF GRANULAR BULK'S CONTACT FORCES FROM ITS MACRO BEHAVIOUR AND CONTACT NETWORK FABRIC
Zorica Ristic*. Arno Mayrhofer. Stefan Radl.

*Speaker

OC - ADHESION FORCES BETWEEN PARTICLES IN THE GAS-PHASE
Samir Salameh*. Ruud Van Ommen. Lutz Maedler.

FC - SLIDING FRICTION MEASUREMENTS OF SINGLE PARTICLES AT DIFFERENT CONTACT FORCES
David Strohner*. Fabian Krull. Sergiy Antonyuk.

FC - APPLICABILITY OF A NORMAL CONTACT FORCE MODEL FOR SPHEROCYLINDRICAL PARTICLES TO LARGE-OVERLAP DEM SIMULATION
Stephanos Constandinou*. Kevin Hanley. Jane Blackford.

08:30 - 10:00

T3 - PARTICLE COATING I

MADRID ROOM

KN - CHALLENGES IN MODELLING AND UNDERSTANDING OF PARTICLE FORMULATION BY SPRAY GRANULATION
Stefan Heinrich*.

OC - MULTI-LAYER PARTICLE COATINGS USING WURSTER FLUIDISED BED FOR PERSONALISED MEDICINE
Ondrej Navratil*. Jakub Mužík. Miroslav Vecera. Gregor Sedmak. Filip Sembera. František Štěpánek.

OC - A MATHEMATICAL MODEL OF CONTACT SPREADING
Ben Freireich*.

FC - EFFECT OF MULTILAYER SINTERING ON POROSITY AND ELECTRICAL RESISTIVITY OF COPPER FILMS PREPARED FROM NANOPARTICLES SYNTHESIZED FROM ARC DISCHARGE
Einar Kruis*. Q Fu. W. Li.

FC - DEM SIMULATION OF A TABLET-COATING PROCESS AND OPTIMIZATION OF PAT PLACEMENT
Benedict Benque*. Elisabeth Fink. Manuel Zettl. Johannes Khinast. Thomas Forgber.

08:30 - 10:00

T9 - CALIBRATION METHODS AND DEVICES

VIENA ROOM

OC - ESTIMATION OF DEM CONTACT PARAMETERS BASED ON BLOCK-LIKE MOTION CHARACTERIZATION FOR COHESIVE POWDERS
Tobias Kronlachner*. Stefan Pirker. Thomas Lichtenegger.

OC - CONTACT PARAMETER SELECTION - AN APPROACH BASED ON MULTI- OBJECTIVE OPTIMIZATION AND METAMODELING
Thomas Forgber*. Johannes G. Khinast. Elisabeth Fink.

OC - DEVELOPMENT AND APPLICATION OF A QUICK IMAGE ANALYSIS CALIBRATION PROCEDURE FOR IN-SITU CRYSTAL SIZE MEASUREMENT
Wei-Lee Wu*. Madeline Mills. Erik Larmore. Ulrich Schacht. Vaso Vlachos. Zoltan Nagy.

OC - DEM PARAMETER CALIBRATION BASED ON FLOW DATA FROM A SPLIT- BOTTOM SHEAR CELL
Nazanin Ghods*. Zohreh Farmani. Joshua Dijksman. Stefan Radl.

FC - EFFECT OF THE CALIBRATION METHOD ON THE FLOW OF A PHARMACEUTICAL POWDER IN A SCREW FEEDER: A DISCRETE ELEMENT METHOD STUDY
Luz Naranjo*. Ingmar Nopens. Thomas De Beer. Ashish Kumar.

*Speaker

08:30 - 10:00

T9 - POPULATION BALANCE, LATTICE BOLTZMANN AND MOLECULAR MODELLING I

BAHIA ROOM

OC - HYBRID POPULATION BALANCE MODELING OF AGGLOMERATING MULTICOMPONENT SYSTEMS
Frank Rhein*. Hermann Nirschl.

OC - A DUAL POPULATION BALANCE APPROACH FOR SIMULATION OF PARTICLE FORMATION FROM PRECURSOR LADEN DROPLETS
Ivan Skenderovic*. Einar Kruis.

OC - A COMPUTATIONAL FLUID DYNAMICS - POPULATION BALANCE APPROACH FOR EVAPORATING COUGH DROPLETS TRANSPORT
Yi Feng*. Dongyue Li. Daniele Marchisio. Marco Vanni. Antonio Buffo.

OC - FORMATION DYNAMICS OF NOBLE METAL NANOPARTICLES
Markus Biegel*. Tobias Schikarski. Cornelia Damm. Wolfgang Peukert.

OC - MODELLING MICROSTRUCTURE-DEPENDENT MOMENTUM AND HEAT EXCHANGE IN DENSE PARTICLE-FLUID FLOWS USING PARTICLE-RESOLVED LATTICE BOLTZMANN SIMULATIONS
Tony Rosemann*. Simon Raoul Reinecke. Harald Kruggel-Emden.

08:30 - 10:00

T7 - AEROSOL PHYSICS AND CHEMISTRY AND INDUSTRIAL APPLICATIONS II

LONDRES ROOM

KN - POTENTIAL AND LIMITATIONS OF CFD AND DEM SIMULATION IN THE DESIGN OF ORALLY INHALED DRUG PRODUCTS
Andrea Benassi*.

OC - DYNAMICS OF MOLECULAR COLLISIONS IN AIR BEYOND THE KINETIC THEORY
Dimitrios Tsalikis*. Vlasis G. Mavrantzas. Sotiris Pratsinis.

OC - POROUS NIO PREPARED BY FLAME SPRAY PYROLYSIS FOR 80WT%NI- CEO^2 CATALYST FOR CO^2 METHANATION
Kakeru Fujiwara*.

FC - PERFORMANCE CHARACTERISATION OF A NEW AEROSOL GENERATOR USING THE ROATING BRUSH PRINCIPLE
Frederik Weis*.

FC - ENGINEERING OF FLAME-MADE PLASMONIC-SEMICONDUCTING NANOCATALYSTS: A STUDY OF THE PHOTO-INDUCED CARRIER DYNAMICS AND INTERFACIAL ELECTRON TRANSFER
Constantinos Moularas*. Christos Dimitriou. Yiannis Deligiannakis.

08:30 - 10:00

T5 - PHARMACEUTICAL PARTICLES

PARIS ROOM

KN - REMOTE CONTROL RELEASE OF ANTIBIOTICS FROM STRUCTURED MICROPARTICLES
Denisa Lizoňová*. Ondrej Navratil. Karolina Slonková. Lucie Mašková. Aleš Zadražil. František Štěpánek.

*Speaker

OC - MECHANISTIC MODELLING OF SPHERICAL AGGLOMERATION PROCESSES: ANALYSIS OF AN IMMERSION-DRIVEN MECHANISM THROUGH POPULATION BALANCE MODELLING
Bilal Ahmed*. Omid Arjmandi-Tash. Rachel Smith. Jim Litster.

OC - MULTIPLE-UNIT DOSAGE SYSTEM: A FLEXIBLE TOOL FOR COMBINATION THERAPY
Elizaveta Mutylo*. David Smrčka. František Štěpánek.

08:30 - 10:00

T9 - INDUSTRIAL APPLICATIONS IV

CONVENCION ROOM

KN - ASSESSING THE INFLUENCE OF SURFACE ENERGY HETEROGENEITY ON DRY POWDER COATING PERFORMANCE USING DEM
Marv Khala. Colin Hare*. Vikram Karde. Jerry Heng.

OC - CFD MODELLING OF CLOSED-COUPLE GAS ATOMISATION PROCESS
Jo Samuel Joseph Subramanian*. Andrew Mullis. Duncan Borman.

OC - THE EFFECT OF PARTICLE ADHESION ON TABLET UNIFORMITY DURING THE DIE FILLING IN A ROTARY TABLET PRESS
Mohammadreza Alizadeh Behjani*. Chao Zheng. Lisa De Souter. Bernardus Joseph Nitert. Thomas De Beer. Chuan-Yu Wu.

OC - COMPUTATIONAL MODELING OF DRYING IN A FLUIDIZED BED DRYER USING COUPLED CFD-DEM APPROACH
Bodhisattwa Chaudhuri*. Hossain Aziz. Yijie Gao. Giovanni De Simone.

08:30 - 10:00

T9 - EULER-EULER AND EULER-LAGRANGE APPROACHES

CARACAS ROOM

OC - A MULTIPHASE OPERATOR SPLITTING APPROACH FOR THE MULTISCALE EULER-EULER SIMULATION OF REACTIVE INDUSTRIAL FLUIDIZED UNITS
Daniele Micale*. Riccardo Uglietti. Mauro Bracconi. Matteo Maestri.

OC - COMPARISON OF STOCHASTIC TURBULENT DISPERSION MODELS IN PREDICTING PARTICLE COLLECTION EFFICIENCY IN EULER-LAGRANGE CYCLONE NUMERICAL SIMULATIONS
Tania Klein*. Ricardo Medronho. Sarah Suelen Simões Silva.

OC - ASSESSMENT OF THE OPERABILITY RANGE OF DYNAMICALLY STRUCTURED GAS-SOLID FLUIDIZED BED REACTORS
Davide Cafaro*. Daniele Micale. Riccardo Uglietti. Kaiqiao Wu. Mauro Bracconi. Marc - Olivier Coppens. Matteo Maestri.

OC - CFD SIMULATION OF HIGHLY LOADED LARGE-SCALE CYCLONES INCLUDING PARTICLE AGGLOMERATION MODELING
Mohamadali Mirzaei*. Peter Arendt Jensen. Weigang Lin. Hao Wu. Mohammadhadi Nakhaei. Sam Zakrzewski. Haosheng Zhou.

FC - STRUCTURAL OPTIMIZATION OF WATER-AIR COAXIAL NOZZLE FOR TRIPLE-PIPE HIGH-PRESSURE JET GROUTING
Feng Zhang*. Jian Li. Yongfeng Deng. Jianhong Lu. Chuanlong Xu.

FC - CFD MODEL VALIDATION OF A FINE PARTICLE COLD PLASMA COATING BED USING EULERIAN APPROACH
Pedro Martin Salvador*. Ashish Kumar. Thomas De Beer.

*Speaker

08:30 - 10:00

T4 - FUNDAMENTALS OF FLUIDIZATION I

LA PAZ ROOM

KN - HYDRODYNAMIC STUDY OF A DIRECTLY IRRADIATED FLUIDIZED BED AUTOTHERMAL REACTOR (DIFBAR)
Stefano Padula*. Maurizio Troiano. Claudio Tregambi. Roberto Solimene. Piero Salatino.

OC - EFFECT OF MECHANICAL VIBRATION ON TWO-PHASE FLOW PATTERNS IN A GAS-SOLID FLUIDIZED BED
Yoshihide Mawatari*. Takao Omori.

OC - ASSISTED FLUIDIZATION OF COHESIVE POWDERS: INSIGHTS FROM AN X-RAY TOMOGRAPHY STUDY
Kaiqiao Wu*. Gabriel Meesters. Ruud Van Ommen.

OC - BED DENSITIES IN STATIONARY AND FLOWING GAS-SOLIDS FLUIDIZED BEDS
Allan Issangya*. S.B. Reddy Karri. Ray Cocco. Ted Knowlton. Jia Chew.

FC - NUMERICAL SIMULATION OF BINARY MIXTURE OF PARTICLES IN A FLUIDIZED RISER
Dan Sun*.

FC - UNSTABLE SPHERE SINKING IN A FLUIDIZED BED AT HIGHER AIR VELOCITY; 1) EXPERIMENTAL STUDY
Jun Oshitani*. Takuya Tsuji. Shusaku Harada. Shunsuke Kato. Hirokazu Kajiwara. Kei Matsuoka.

10:00 - 11:30

T2 - ELECTROSTATICS OF PARTICLES

OSLO ROOM

OC - TRIBOELECTRIC CHARGING OF POWDERS
Salvatore Pillitteri*. Aurélien Neveu. Filip Franccqui. Geofroy Lumay.

OC - A STUDY ON THE CHARGE NEUTRALISING EFFECT OF ALUMINIUM STEARATE IN TRIBOELECTRIFICATION
Jiachen Guo*. Wei Pin Goh. Xiaodong Jia. Mojtaba Ghadiri.

OC - TRIBOELECTRIC CHARGE BUILD-UP MECHANISMS IN GRANULAR PARTICLE MIXTURES
Reuben Cruise*. Stanley Starr. Jan Cilliers. Kathryn Hadler.

OC - ELECTRODYNAMIC DUST SHIELD WITH VIBRATION ASSISTANCE FOR CLEANING LUNAR REGOLITH PARTICLES
Masato Adachi*. Takamichi Uemori. Tomoko Hirayama. Mizuki Shoyama. Shuji Matsusaka.

10:00 - 11:30

T3 - PARTICLE COATING II

MADRID ROOM

OC - A DEM - MONTE CARLO APPROACH FOR OPTIMIZATION OF INTER- AND INTRA-TABLET COATING VARIABILITY IN A LAB-SCALE TABLET COATING PROCESS
Fatemeh Mostafaei*. Johannes Khinast. Thomas Forgber.

OC - DEPENDENCE OF LAYER BUILD-UP ON SPRAY PARAMETERS IN FLUIDIZED BED SPRAY GRANULATION
Maike Orth*. Brigham Watson. Swantje Pietsch-Braune. Stefan Heinrich.

*Speaker

OC - CELLULOSE NANOFIBERS AS PAPER COATINGS TO IMPROVE BARRIER, SURFACE, AND MECHANICAL PROPERTIES

Joaquim Agustí Tarrés Farrés*. Daniel Moreno- Torres. Marc Delgado-Aguilar. Paulo Ferreira.

OC - PRODUCTION AND ANALYSIS OF POLYMER-CERAMIC COMPOSITE MATERIALS BY A MINIATURIZED FLUIDIZED BED GRANULATOIN PROCESS

Hannah Sophia Rothberg*. Carolin Lohmann. Swantje Pietsch-Braune. Stefan Heinrich.

OC - DEVELOPMENT OF UNIFORM CERAMIC THIN FILMS BY PLANETARY SPIN COATING METHOD

Kazuki Tokumaru*. Koichiro Ogata.

10:00 - 11:30

T9 - INDUSTRIAL APPLICATIONS III

VIENA ROOM

KN - PARTICLE SHAPE EFFECTS IN GRANULAR MATERIAL USING GPU DEM.

Nicolin Govender*. Johannes Khinast. Rafal Kobylka.

OC - HOW WE TEACH DISCRETE ELEMENT METHOD IN ENGINEERING

Dingena Schott*. M. Javad Mohajeri. Marc Fransen. Yunpeng Yan. Raïsa Roeplal. Ahmed Hadi. Qianyi Chen.

OC - OPTIMIZATION OF A JAW CRUSHER USING DEM AND MBD COUPLING

Andrew Hobbs. Marina Sousani*.

OC - DEM STUDY OF A VIBRATIONAL POWDER TRANSPORT SYSTEM

Martina Trogrlic*.

FC - MODELLING HOPPER DISCHARGE OF ELONGATED PARTICLES WITH DIFFERENT SHAPE REPRESENTATION METHODS

Marina Sousani*. Stefanos - Aldo Papanicolopulos.

FC - PREDICTION OF POWDER FLOW OF PHARMACEUTICAL MATERIALS FROM PHYSICAL PARTICLE PROPERTIES USING MACHINE LEARNING.

Laura Pereira Diaz*. Cameron Brown. Alastair Florence.

FC - USE OF THE DISCRETE ELEMENTS METHOD FOR DESCRIBING ABRASIVE WEAR IN BULK MATERIAL HANDLING TECHNOLOGY

Thomas Roessler. André Katterfeld *. Hendrik Otto. Matthias Dratt. Heiko Koether. Moritz Kerler. Matthew Barnard.

10:00 - 11:30

T9 - POPULATION BALANCE, LATTICE BOLTZMANN AND MOLECULAR MODELLING II

BAHIA ROOM

OC - SCALING LAWS FOR PARTICULATE PRECIPITATION PROCESSES

Tobias Schikarski*. Marc Avila. Wolfgang Peukert.

OC - THE INFLUENCE OF SURFACE FUNCTIONAL GROUPS ON THE TRIBOELECTRIFICATION OF ORGANIC CRYSTALS

James Middleton*. Andrew Scott. Richard Storey. Mariagrazia Marucci. Stephen Ward-Smith. Neil Dawson. Martin Rowland. Mojtaba Ghadiri.

*Speaker

OC - EFFECT OF OPERATING CONDITIONS ON THE CHEMICAL SYNTHESIS OF SILVER NANOPARTICLES IN MICROFLUIDICS: COUPLED PBM-CFD SIMULATIONS
Paula Pico*. Konstantina Nathanael. Alessio Domenico Lavino. Nina Kovalchuk. Mark Simmons. Omar Matar.

OC - PREDICTION OF GRANULE CRITICAL QUALITY SIZE ATTRIBUTES IN A TWIN SCREW WET GRANULATOR USING POPULATION BALANCE MODELLING
Jeremiah Corrigan*. Bilal Ahmed. Rachel Smith. Jim Litster. Jonathan Meyer. Marek Schongut. Kai Lee. Neil Dawson. Martin Rowland.

FC- TURBULENCE INDUCED AGGREGATION OF SOLID PARTICLES IN PERIKINETIC AND ORTHOKINETIC REGIMES
Magdalena Jasińska. Grzegorz Tyl*. Juliusz Kondracki.

10:00 - 11:30

T5 - NEW APPROACHES FOR PARTICLE PREPARATION

PARIS ROOM

OC - APPLICATION OF DETAILED MODELLING IN THE GOOD, BAD AND UGLY WORLD OF PARTICLES IN PHARMACEUTICAL PROCESSING
Ashish Kumar*.

OC - MEMBRANE-ASSISTED ANTISOLVENT CRYSTALLIZATION: WHICH FACTORS CONTROL THE CRYSTAL PROPERTIES?
Sara Chergaoui*. Tom Leyssens. Damien P. Debecker. Patricia Luis Alconero.

OC - INVESTIGATING THE CONTINUOUS FLOW SEEDED GROWTH OF METALLODIELECTRIC PATCHY PARTICLES WITH IN-LINE OPTICAL SPECTROSCOPY
Andreas Völkl*. Robin Klupp Taylor.

OC - PROTECTION OF ZNO NANOPARTICLES AGAINST ACID CORROSION BY TIO2 COATINGS
Tomoyuki Hirano*. Shogo Kaseda. Kiet Le Anh Cao. Takashi Ogi.

FC - MULTIFUNCTIONAL CORE-SHELL PARTICLES OBTAINED BY IN SITU COATING OF ELECTROSPRAYED POLYMER PARTICLES
Marvin Klaiber*. André Tschöpe. Matthias Franzreb. Jörg Lahann.

FC - ANTICAKING AGENTS WITH SUPERABSORBENT PROPERTIES
Pablo Garcia-Trinanes*.

10:00 - 11:30

T9 - INDUSTRIAL APPLICATIONS V

CONVENCION ROOM

KN - SIMULATION OF NI-MN-CO HYDROXIDE CO-PRECIPITATION IN A CONTINUOUS STIRRED-TANK REACTOR BY ADOPTING CFD AND POPULATION BALANCE MODELLING
Mohsen Shiea*. Andrea Querio. Antonio Buffo. Gianluca Boccardo. Daniele Marchisio.

OC - NUMERICAL MODELLING OF LEADING-EDGE EROSION OF WIND TURBINE BLADES DUE TO PARTICLES IMPACT
Khuram Walayat*.

OC - COARSE GRAIN DEM-CFD SIMULATIONS FOR THE ANALYSIS OF TRIBOCHARGING IN FLUIDIZED BED
Erasmo Salvatore Napolitano*. Alberto Di Renzo. Francesco Paolo Di Maio.

*Speaker

OC - OPTIMIZATION OF FLUIDIZED BED GRANULATION PROCESSES USING HYBRID MODELING STRATEGY
Maksym Dosta*. Ragna Hofmann. Peter Schneider. Martin Maus.

10:00 - 11:30

T3 - CLASSIFICATION AND COMMINUTION II

CARACAS ROOM

KN - MODELING THE IMPACT OF BALL SIZE–MATERIAL ON THE FINENESS OF CEMENT CLINKER PARTICLES PREPARED BY DRY BALL MILLING
Rajesh Dave*. Nontawat Muanpaopong. Ecevit Bilgili.

OC - SELECTIVE HEAT TREATMENT OF ORES: COUPLING BULK SOLIDS AND MICROWAVES
David Craig*. Sam Kingman. Chris Dodds. Andrew Batchelor. Tracy Holmes.

OC - OPTIMIZATION OF PARTICLE BREAKAGE DURING COMBINED CRYSTALLIZATION-WET MILLING PROCESSES – A MECHANISTIC MODELLING APPROACH
Bhavik Mehta. Bilal Ahmed*. Niall Mitchell. Cameron Brown.

FC - FRACTIONATION WITH RESPECT TO SIZE AND DENSITY BY MEANS OF A CLASSIFYING AERODYNAMIC LENS
Matthias Masuhr*. Einar Kruis.

FC - PREDICTIVE SIMULATIONS OF WEAR IN SAG MILLS USING ROCKY DEM
Guilherme Hanauer de Lima. Jens Lichter. Sebastian Andres Urrejola Perez. Pablo Pichinao Campos. Rahul Bharadwaj*. Alexander Potapov.

10:00 - 11:30

T4 - FUNDAMENTALS OF FLUIDIZATION II

LA PAZ ROOM

OC - BOUNDARY OF GELDART GROUPS A AND C BASED ON THE MAGNITUDE OF INTERPARTICLE FORCES
Iman Soleimani*. Jaber Shabanian. Jamal Chaouki.

OC - UNSTABLE SPHERE SINKING IN A FLUIDIZED BED AT HIGHER AIR VELOCITY; 2) NUMERICAL STUDY
Takuya Tsuji*. Jun Oshitani. Shusaku Harada. Kimiaki Washino. Toshitsugu Tanaka. Hirokazu Kajiwara. Kei Matsuoka.

OC - RISING GRANULAR BUBBLES AND SPLITTING GRANULAR DROPLETS: REVEALING THE PHYSICS BEHIND FLUID-LIKE PHENOMENA IN BINARY GRANULAR MATERIALS
Jens Metzger*. Christopher McLaren. Sebastian Pinzello. Nicholas A. Conzelmann. Christopher Boyce. Christoph Müller.

OC - INVESTIGATION OF THE WET CONTACT BEHAVIOR OF PARTICLES IN CFD-DEM SIMULATIONS OF A ROTOR GRANULATOR
Philipp Grohn*. Tobias Oesau. Stefan Heinrich. Sergiy Antonyuk.

OC - GAS PHASE DISTRIBUTION AND SOLIDS MIXING IN HIGH TEMPERATURE DENSE FLUIDIZED BEDS
Laura Molignano*. Maurizio Troiano. Roberto Solimene. Sina Tebianian. Piero Salatino. Jean-François Joly.

OC - MINI-TORBED TECHNOLOGY FOR CARBON CAPTURE ADSORBENT SCREENING
Mirrouzbeh Jamei*. Vladimir Zzikovich. Jonathan Mcdonough. David Reay.

*Speaker

11:30 - 12:00
COFFEE BREAK - EXHIBITORS' AREA

12:00 - 13:00
PLENARY LECTURE - AIBING YU - SIMULATION AND MODELLING OF PARTICULATE SYSTEMS
CONVENCION ROOM

SIMULATION AND MODELLING OF PARTICULATE SYSTEMS
Aibing Yu.

13:00 - 14:00
CLOSURE & AWARDS
CONVENCION ROOM

*Speaker

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