



Program | Symposium 2019

Selb (Germany), 20th - 22nd May 2019



What you should know about



With the aid of paints and coatings and impact and non-impact inks, various functionalities are often presented simultaneously.

Coatings serve to protect against corrosion, have an antistatic effect, are turned into simple, printed electronic components or indicate shelf life on packages of preserved products.

When we're driving, reflective or luminescent elements show us the way. Glass coatings automatically provide UV protection and will even act as generators for solar energy in the future.

Colors can completely change the visual appearance as well as the tactile properties of products. Materials are found in buildings today that look like marble, granite or wood, but are actually ceramic tiles.

Functional coatings require the formulation of colored organic or inorganic pigments and preferably ecological solvents, binders and fillers.

In the textiles sector, it is also required that they be antiallergenic. In addition, mixing and dispersing machines, along with agitator bead mills of various designs, are required for the production of these dispersions.

For development and quality assurance, the characterization of particle size, color intensity, transparency or gloss is essential.

Paints, Coatings & Inks ...

Without colors our everyday life would be dull and boring.
There is a lot more to colors than you might think at the first sight.

Would you like to learn more about developments and trends, collect and discuss new ideas? Then do not hesitate to sign up for the event!



The Institute for Particle Technology (IPAT), the European Center for Dispersion Technologies (EZD), Malvern Panalytical GmbH, Evonik Resource Efficiency GmbH and NETZSCH-Feinmahltechnik GmbH invite you to participate at the Dispersion Days 2019 in Selb.

During the Dispersion Days symposium, we would like to discuss various developments and trends as well as the needs for the practice of the future. The meeting should help to bring experts in various fields from universities and colleges, institutes and industry closer together.

We look forward to you!



To sign up please use the QR code or the following link:
www.dispersion-days.de
Please note the **deadline for registration (08.05.2019)**



Fees and discount structure	Universities, colleges, research facilities etc.	Industry
Attendance fee	450.00 €	900.00 €
Corporate discount 15 % > 10 persons of one company	382.00 €	765.00 €

Prices per person

MONDAY
20th May 2019

TUESDAY
21st May 2019

18.00	START REGISTRATION		
19.00	WELCOME DINNER		
	Session I – Roland Dorschner Hall PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS	Session II – Room Erwin Weber CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES	Session III – Roland Dorschner Hall Restaurant BASIC COURSES & WORKSHOPS
08.00	ENTRY & START REGISTRATION		
	OPENING & WELCOME		
08.30	Short welcoming speech (D. Makrakis, Dr. M. Wingfield, Prof. Dr. A. Kwade, Dr. Wolff-Fabris)		
08:50	IMPULS LECTURE „DIGITAL TRANSFORMATION“ Dr. Jörg Karas, Schwan-Stabilo Cometics		Slido event code: Ddays001
09.30	COFFEE BREAK		
10.00	Use of jet grinding for the production of matting agents Slido event code: Ddays002	Knowledge based strategy to improve efficiency & quality of dispersion processes Slido event code: Ddays020	Influence of operating parameters in wet grinding processes Slido event code: Ddays038
10.45	Titanium dioxide dispersion fundamentals Slido event code: Ddays003	High throughput experimentation for efficient optimization of grinding steps Slido event code: Ddays021	Mechanisms of particle stabilization in coating formulations Slido event code: Ddays039
11.15	Optimization of ink production processes with the combination of inline-disperser <i>EPSILON</i> & recirculation mill <i>NEOS</i> Slido event code: Ddays004	A new approach to the determination of the size, shape and chemical structure of particles in a multi component mixture Slido event code: Ddays022	
11.45	Optimization of the ink dispersion process Slido event code: Ddays005	Selection criteria of wetting & dispersing additives beyond coloristic properties Slido event code: Ddays023	Thermogravimetric investigation of particle size and dispersion of a flame retardant in epoxy resin samples Slido event code: Ddays040
12.15	LUNCH TIME		
13.15	The influence of dispersion & surface treatment on properties of TiO ₂ pigments Slido event code: Ddays006	How to improve development & quality control of dispersion paints by using particle size characterization & image analysis instruments Slido event code: Ddays024	The basics of rheology: flow and deformation of elastic liquids & viscous solids Slido event code: Ddays041
13.45	Principles in nanoparticulate dispersing – effect of viscosity Slido event code: Ddays007	Assessing stressing conditions in mills by single particle experiments Slido event code: Ddays025	Optimizing rheology for paint and coating applications Slido event code: Ddays042
14.15	Mirror and chrome finishes – solutions & challenges with metallic effect pigments Slido event code: Ddays008	Productivity increase in the dispersion process through efficient process control with liquid paint color measurement Slido event code: Ddays026	Use of additives from the perspective of a coatings producer Slido event code: Ddays043
14.45	COFFEE BREAK		
15.15	APPTec - a new generation of spray pyrolysis to generate advanced powder materials Slido event code: Ddays009	Rapid and high resolution particle size distribution measurement & chemical analysis with electron microscopy Slido event code: Ddays027	Pre-dispersing processes of high viscose mill bases with large batch sizes Slido event code: Ddays044
15.45	Advanced dispersibility test for fillers with three roll mills & realtime process analysis Slido event code: Ddays010	Wet measurements with laser diffraction: suitable for ink jet inks & agglomerate detection? Slido event code: Ddays028	
16.15	New technology for high viscous and heat sensitive products Slido event code: Ddays011	Life cycle of nanoparticle sols in the industrial Sol-Gel coating process Slido event code: Ddays029	Seriously, always those bead mills! „A blessing and a curse!“ Slido event code: Ddays045
16.45	VISITING TOURS OF EZD		
19.00	GET TOGETHER – BAVARIAN EVENING		

PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS

- 10.00 - 10.45 Use of jet grinding for the production of matting agents
Dr. rer. nat. Thomas Klotzbach | Evonik Resource Efficiency GmbH
- 10.45 - 11.15 Titanium dioxide dispersion fundamentals
Dipl. Ing. Martin Sandrock | Kronos International, Inc.
- 11.15 - 11.45 Optimization of ink production processes with the combination of inline-disperser *EPSILON* & recirculation mill *NEOS*
Alex Lauke | NETZSCH-Feinmahltechnik GmbH
- 11.45 - 12.15 Optimization of the ink dispersion process
Dr.-Ing. Hans-Henning Stender | Siegwerk Druckfarben AG & Co. KGaA
- 13.15 - 13.45 The influence of dispersion and surface treatment on properties of TiO₂ pigments
Dr. Nika Veronovski | CINKARNA Celje d.d.
- 13.45 - 14.15 Principles in nanoparticulate dispersing – effect of viscosity
Dipl. Ing. Benedikt Finke | iPAT – Institute for Particle Technology, TU Braunschweig
- 14.15 - 14.45 Mirror and chrome finishes – solutions and challenges with metallic effect pigments
Peter Wissling | ECKART GmbH
- 15.15 - 15.45 APptec - a new generation of spray pyrolysis to generate advanced powder materials
Dr. Thomas Jähnert | Glatt Ingenieurtechnik GmbH
- 15.45 - 16.15 Advanced dispersibility test for fillers with three roll mills and realtime process analysis
Ulf Köpke | EXAKT Advanced Technologies GmbH
- 16.15 - 16.45 New technology for high viscous and heat sensitive products
Norbert Kern | Bühler AG

CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION - FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES

- 10.00 - 10.45 Knowledge based strategy to improve efficiency and quality of dispersion processes
Prof. Dr.-Ing. Arno Kwade | iPAT – Institute for Particle Technology, TU Braunschweig
- 10.45 - 11.15 High throughput experimentation for efficient optimization of grinding steps
Dipl. Ing. Claudia Bramlage | Evonik Resource Efficiency GmbH
- 11.15 - 11.45 A new approach to the determination of the size, shape and chemical structure of particles in a multi component mixture
Dr. Mark Wingfield | Malvern Panalytical GmbH
- 11.45 - 12.15 Selection criteria of wetting & dispersing additives beyond coloristic properties
Dr. Robin von Hagen | BYK-Chemie GmbH
- 13.15 - 13.45 How to improve development & quality control of dispersion paints by using particle size characterization & image analysis instruments
Dipl. Ing. (FH) Lilian Arbenz | Micromeritics GmbH
- 13.45 - 14.15 Assessing stressing conditions in mills by single particle experiments
Dr.-Ing. Stefan Romeis | Institute of Particle Technology Erlangen (LFG), FAU Erlangen-Nürnberg
- 14.15 - 14.45 Productivity increase in the dispersion process through efficient process control with liquid paint color measurement
Dipl. Chem.-Ing. Hendrik Hustert | ORONTEC GmbH & Co KG
- 15.15 - 15.45 Rapid and high resolution particle size distribution measurement and chemical analysis with electron microscopy
Carsten Pape | Thermo Fisher Scientific
- 15.45 - 16.15 Wet measurements with laser diffraction: suitable for ink jet inks and agglomerate detection?
Andreas Ludwig | Malvern Panalytical GmbH
- 16.15 - 16.45 Life cycle of nanoparticle sols in the industrial Sol-Gel coating process
Dr. Nikolay Podgaynyy | GBneuhaus GmbH

BASIC COURSES & WORKSHOPS

- 10.00 - 10.45 Influence of operating parameters in wet grinding processes
Dr.-Ing. Stefan Mende | NETZSCH-Feinmahltechnik GmbH
- 10.45 - 11.45 Mechanisms of particle stabilization in coating formulations
Frank Kleinsteinberg | Evonik Resource Efficiency GmbH
- 11.45 - 12.15 Thermogravimetric investigation of particle size and dispersion of a flame retardant in epoxy resin samples
Dr. Ekkehard Füglein | NETZSCH-Gerätebau GmbH
- 13.15 - 13.45 The basics of rheology: flow and deformation of elastic liquids and viscous solids
Dr. Christopher Giehl | Anton Paar GmbH
- 13.45 - 14.15 Optimizing rheology for paint and coating applications
Torsten Remmler | Malvern Panalytical GmbH
- 14.15 - 14.45 Use of additives from the perspective of a coatings producer
Udo Hautsch | NETZSCH-Feinmahltechnik GmbH
- 15.15 - 16.15 Pre-dispersing processes of high viscose mill bases with large batch sizes
Michael Rapp | NETZSCH-Feinmahltechnik GmbH
- 16.15 - 16.45 Seriously, always those bead mills! – „A blessing and a curse!“
Dipl.-Ing. Uwe Wolff | UWE-Uwe Wolff Engineering GmbH

	Session I – Roland Dorschner Hall	Session II – Room Erwin Weber	Session III – Roland Dorschner Hall Restaurant
	PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS	CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES	BASIC COURSES & WORKSHOPS
08.30	How simulations can assist the design and optimization of dispersion processes Slido event code: Ddays012	Characterization of the particle size in submicron & nanometer range during dispersion processes Slido event code: Ddays030	nanolnk - more than just colours Slido event code: Ddays046
09.15	Versatile production of silica glass flakes in stirred media mills Slido event code: Ddays013	Combination of laser diffraction & dynamic image analysis for size & shape characterization of dispersions & powders Slido event code: Ddays031	Color measurement techniques Slido event code: Ddays047
09.45	Selection of the optimum bead mill for paint production Slido event code: Ddays014	Inline characterization of particle size & shape for process control using the example of battery slurries & cocoa liquor Slido event code: Ddays032	
10.15	COFFEE BREAK		
11.00	Performance improvement of pigment preparations via intensified milling Slido event code: Ddays015	Powder rheology as a method for development & quality control Slido event code: Ddays033	A basic guide to particle characterization Slido event code: Ddays048
11.30	Fine ceramic beads to get nanoparticles - more than just an auxiliary good Slido event code: Ddays016	A multi-method approach to quality control illustrated on the industrial powder coating process Slido event code: Ddays034	
12.00	New media for ultra-fine dispersing and milling Slido event code: Ddays017	Alternative route for incorporation of an ethanol-based silica suspension in epoxy resin by means of spray-drying technology Slido event code: Ddays035	Pump Search 4.0 – SPA the new information platform for professional pump users Slido event code: Ddays049
12.30	LUNCH TIME		
13.30	VISITING ASSEMBLY OR LABORATORIES WITH DEMONSTRATION (PRODUCTION, LABORATORIES, ANALYZING & TESTING)		
14.30	Possibilities and difficulties in using rCB (recycling carbon black) Slido event code: Ddays018	Physicochemical characteristics of fine iron oxide-particles prepared via pulsatation reactor & study the effect of the material processing parameter on the properties of the produced powder Slido event code: Ddays036	Transition from regular to modular production concepts Slido event code: Ddays050
15.00	Recycling of solvents using distillation – principle, profitability and integration Slido event code: Ddays019	Dry powder measurements with laser diffraction on the example of pigments and extenders Slido event code: Ddays037	Open discussion with experts Slido event code: Ddays051
15.30	OPEN DISCUSSION TO DIGITAL TRENDS		

Modifications reserved.



Sponsoring Partners



PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS

- 08.30 - 09.15 How simulations can assist the design and optimization of dispersion processes
Prof. Dr.-Ing. Carsten Schilde | IPAT Institute for Particle Technology, TU Braunschweig
- 09.15 - 09.45 Versatile production of silica glass flakes in stirred media mills
M. Sc. Julian Esper | Institute of Particle Technology Erlangen (LFG), FAU Erlangen-Nürnberg
- 09.45 - 10.15 Selection of the optimum bead mill for paint production
Dr. Jan Berg | BASF Coatings GmbH
- 11.00 - 11.30 Performance improvement of pigment preparations via intensified milling
Dr. Stephan Blöß | Heubach GmbH
- 11.30 - 12.00 Fine ceramic beads to get nanoparticles - more than just an auxiliary good
Dr. rer. nat. Achim Müller | Sigmund Lindner GmbH
- 12.00 - 12.30 New media for ultra-fine dispersing and milling
Dr. David Bouttes | Saint Gobain Research Provence
- 14.30 - 15.00 Possibilities and difficulties in using rCB (recycling carbon black)
Christian Sieblist | Harold Scholz & Co. GmbH
- 15.00 - 15.30 Recycling of solvents using distillation – principle, profitability and integration
David Roth | OFRU Recycling GmbH & Co. KG

CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION - FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES

- 08.30 - 09.15 Characterization of the particle size in submicron and nanometer range during dispersion processes
Dr.-Ing. Felipe Wolff-Fabris | European Centre for Dispersion Technologies (EZD)
- 09.15 - 09.45 Combination of laser diffraction and dynamic image analysis for size and shape characterization of dispersions and powders
Dr. Thomas Benen | Microtrac GmbH
- 09.45 - 10.15 Inline characterization of particle size and shape for process control using the example of battery slurries and cocoa liquor
Dr. Mirco Wegener | SOPAT GmbH
- 11.00 - 11.30 Powder rheology as a method for development and quality control
Dipl.-Ing. (FH) Daniel Löser | Freeman Technology Ltd.
- 11.30 - 12.00 A multi-method approach to quality control illustrated on the industrial powder coating process
Dr. Timothy Aschl | Anton Paar GmbH
- 12.00 - 12.30 Alternative route for incorporation of an ethanol-based silica suspension in epoxy resin by means of spray-drying technology
M Sc. Martin Mühlbach | SKZ-KFE gGmbH / European Centre for Dispersion Technologies (EZD)
- 14.30 - 15.00 Physicochemical characteristics of fine iron oxide-particles prepared via pulsation reactor and study the effect of the material processing parameter on the properties of the produced powder
Prof. Dr. Tarek Khalil | IBU-tec advanced materials AG
- 15.00 - 15.30 Dry powder measurements with laser diffraction on the example of pigments and extenders
Andreas Ludwig | Malvern Panalytical GmbH

BASIC COURSES & WORKSHOPS

- 08.30 - 09.15 nanoInk - more than just colours
Dr. Justus Hermannsdörfer | Nanoinitiative Bayern GmbH
- 09.15 - 10.15 Color measurement techniques
Dr. Linda Mittelberg | SKZ-KFE gGmbH
- 11.00 - 12.00 A basic guide to particle characterization
Dr. Mark Wingfield | Malvern Panalytical GmbH
- 12.00 - 12.30 Pump Search 4.0 – SPA the new information platform for professional pump users
Kai Stegemann | Star Pump Alliance GmbH
- 14.30 - 15.00 Transition from regular to modular production concepts
Dipl.-Ing. Frank Kother | TMC
- 15.00 - 15.30 Open discussion with experts
Dr.-Ing. Stefan Mende, Michael Rapp, Frank Kleinsteinberg, Dr. Ekkehard Füglein, Torsten Remmler, Kai Stegemann

Dispersion Days 2019 | An event of

NETZSCH

 **EVONIK**
POWER TO CREATE

iPAT
Institut für Partikeltechnik



**Malvern
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Das Dispergier-Zentrum