



Program | Symposium 2017

Selb (Germany), 15th - 17th May 2017



What you should know about 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!



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.



The Institute for Particle Technology (IPAT), the European Center for Dispersion Technologies (EZD), Malvern Instruments and NETZSCH-Feinmahltechnik GmbH invite you to participate at the Dispersion Days 2017 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.com
Please note the **deadline for registration (30.04.2017)**



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 €
		Price per person

MONDAY
15th May 2017

TUESDAY
16th May 2017

18.00	START REGISTRATION		
19.00	WELCOME DINNER		
	Session I - Roland Dorschner Hall	Session II - Room Erwin Weber	Session III - Room DELTAVITA®
	PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS	CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION	FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES
08.00	ENTRY & START REGISTRATION		
09.00	OPENING & WELCOME Short welcoming speech (D. Makrakis, Dr. M. Wingfield, Prof. Dr. A. Kwade, Dr. Wolff-Fabris)		
09.30	Process & Plant Engineering	Improving dispersion processes by physical understanding of micro and macro processes	Combining know-how of process engineering and chemistry
10.15	Dedusting of metal powders for additive manufacturing (3D printing)	Optimizing the stability and flow characteristics of pigment dispersions	Wetting & Dispersing Additives – basics, test methods and product selection
11.00	COFFEE BREAK		
11.15	SolGel Nano Technology – Functional and decorative coatings for excellent surfaces	Particle size analysis in printing ink manufacturing	Enhancing product properties of submicron, organic particles by formulation and process parameters of stirred media milling
11.45	Dispersion technology related to titanium dioxide production	Characterization of the dispersion homogeneity quality of particulate fillers	Nano-raspberry powders. towards easily redispersible nanoparticles
12.15	Simple and fast methods on how to optimize and evaluate cleaning procedures for milling equipment	Characterization and quantification of additives and fillers by means of Thermal Analysis	Functional inks: the influence of structure-process-device-relation
12.45	LUNCH TIME		
13.45	New solution for producing homogeneous dispersions in an inline process	Detecting over-sized particles in ink-jet inks using laser diffraction particle size analysis	New formulation concepts of productions of coatings and inks
14.15	Mechanochemical prospects in stirred media milling	Gravimetric or volumetric machines. What is the key to success?	Carbon black preparations instead of special grades
14.45	First industry test results with tungsten carbide high density media	Rapid SEM methods for characterization of micro- and nanometer scaled particles	LOW VOC – get your freedom back
15.15	COFFEE BREAK		
15.30	Incorporation and dispersion of layered double hydroxides	Environmental-friendly solutions for waterborne metallic coatings	Nanoparticle functionalization strategies for enhanced product properties
16.00	Benefits of solvent recycling in paint factories	A new approach to the determination of the size, shape and chemical structure of particles in a multi component mixture	Antibacterial materials
16.30	Ultrasonic bottom-up synthesis of nanoparticles on industrial scale	NanoInk - network for special inks	Functionalization of viscose fibres: special requirement of additives
17.00	COFFEE BREAK		
17.15	Excursion to the EZD or Return to the hotel (with Bus transfer)		
19.00	GET TOGETHER		

PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS

- 09.30 - 10.15 Process & Plants Engineering
D. Tomlinson | NETZSCH Grinding & Dispersing
- 10.15 - 11.00 Dedusting of metal powders for additive manufacturing (3D printing)
C. Schuster | NETZSCH Grinding & Dispersing
- 11.15 - 11.45 SolGel Nano Technology – Functional and decorative coatings for excellent surfaces
M. An der Heiden | GB Neuhaus
- 11.45 - 12.15 Dispersion technology related to titanium dioxide production
M. Sandrock | Kronos Titan GmbH
- 12.15 - 12.45 Simple and fast methods on how to optimize and evaluate cleaning procedures for milling equipment
N. Wilke | Siegwerte Druckfarben AG & Co KG aA
- 13.45 - 14.15 New solution for producing homogeneous dispersions in an inline process
D. Kastl | NETZSCH Grinding & Dispersing
- 14.15 - 14.45 Mechanochemical prospects in stirred media milling
Dr. S. Romais | Institute of Particle Technology Erlangen (LFG)
- 14.45 - 15.15 First industry test results with tungsten carbide high density media
Dr. R. Metz | Siegwerte Druckfarben AG & Co KG aA
- 15.30 - 16.00 Incorporation and dispersion of layered double hydroxides
T. Sommer | EZD - European Center for Dispersion Technologies
- 16.00 - 16.30 Benefits of solvent recycling in paint factories
F. Chaatouf | OFRU Recycling
- 16.30 - 17.00 Ultrasonic bottom-up synthesis of nanoparticles on industrial scale
T. Hielscher | Hielscher Ultrasonics GmbH

CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION

- 09.30 - 10.15 Improving dispersion processes by physical understanding of micro and macro processes
Prof. Dr. A. Kwade | IPAT Institute for Particle Technology - Braunschweig
- 10.15 - 11.00 Optimizing the stability and flow characteristics of pigment dispersions
Dr. M. Wingfield | Malvern Instruments GmbH
- 11.15 - 11.45 Particle size analysis in printing ink manufacturing
Dr. S. Machefer | Siegwerte Druckfarben AG & Co KG aA
- 11.45 - 12.15 Characterization of the dispersion homogeneity quality of particulate fillers
M. Müller | EZD - European Center for Dispersion Technologies
- 12.15 - 12.45 Characterization and quantification of additives and fillers by means of thermal analysis
Dr. E. Füglein | NETZSCH Gerätebau GmbH
- 13.45 - 14.15 Detecting over-sized particles in ink-jet inks using laser diffraction particle size analysis
A. Ludwig | Malvern Instruments GmbH
- 14.15 - 14.45 Gravimetric or Volumetric machines. What is the key to success?
H. Nijland | Gemini Technik BV
- 14.45 - 15.15 Rapid SEM methods for characterization of micro- and nanometer scaled particles
C. Pape | LOT-QuantumDesign GmbH
- 15.30 - 16.00 Environmental-friendly solutions for waterborne metallic coatings
Dr. A. Fetz | Eckart GmbH
- 16.00 - 16.30 A new approach to the determination of the size, shape and chemical structure of particles in a multi component mixture
Dr. M. Wingfield | Malvern Instruments GmbH
- 16.30 - 17.00 nanoInk - network for special inks
Dr. J. Hermannsdörfer | Nanoinitiative Bayern

FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES

- 09.30 - 10.15 Combining know-how of process engineering and chemistry
E. Reuter | Evonik
- 10.15 - 11.00 Wetting & Dispersing Additives – basics, test methods and product selection
M. Knospe | BYK-Chemie GmbH
- 11.15 - 11.45 Enhancing product properties of submicron, organic particles by formulation and process parameters of stirred media milling
F. Flach | IPAT Institute for Particle Technology - Braunschweig
- 11.45 - 12.15 Nano-raspberry powders: towards easily redispersible nanoparticles
Dr. K. Mandel | Fraunhofer ISC
- 12.15 - 12.45 Functional Inks: the influence of structure-process-device-relation
Dr. N. Mechau | peptech GmbH
- 13.45 - 14.15 New formulation concepts of productions of coatings and inks
F. Kother | VETCH PRO
- 14.15 - 14.45 Carbon black preparations instead of special grades
C. Sieblist | Harold Scholz & Co GmbH
- 14.45 - 15.15 LOW VOC – get your freedom back
E. Ellen | Evonik
- 15.30 - 16.00 Nanoparticle functionalization strategies for enhanced product properties
S. Zellmer | IPAT Institute for Particle Technology - Braunschweig
- 16.00 - 16.30 Antibacterial materials
Prof. Dr. G. Luthe | Smart Material Printing B.V.
- 16.30 - 17.00 Functionalization of viscose fibres: special requirement of additives
Dr. N. Köhne | Kelheim Fibres GmbH

Session I - Roland Dorschner Hall		Session II - Room Erwin Weber	
PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS		CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES	
08.30	Manufacturing of digital inks - requirements, challenges and solutions	Optimizing rheology for paint and coating applications	
09.15	Optimization of the grinding process of printing inks with the new high performance mill	From real time and accelerated stability studies towards shelf life prediction	
09.45	First industry test results of packaging ink production with NETZSCH Neos technology	Online methods to characterize the particle size during processing	
10.15 COFFEE BREAK			
11.00	Try and error was yesterday - How to achieve better dispersing results with realtime process analysis	Watching paint dry: relating paint gloss to the particle size of extender pigments	
11.30	Production and processing of carbon suspensions	Characterization of the behavior of powder coatings supplemented	
12.00	Implementation of latest bead mill technology in production	Formulation strategies to enhance mechanical properties of thin coatings	
12.30 LUNCH TIME			
13.30 Visit of the assembly or laboratories with demonstration			
14.30	Challenges pumping highly loaded and high viscosity products in the printing industry	Functional fillers with chemical modification – benefits and challenges	
15.00	The new generations of grinding media and parameters for cost reductions	Preparation of submicron metal oxide powder such as ZrO ₂ , Al ₂ O ₃ or ZrO ₂ -toughened alumina (ZTA) using pulsation reactor technology and study dispersion behavior as well as granulation after spray drying for ZTA particles	
15.30 Podium discussion - Roland Dorschner Hall „New trends and challenges of digitalization for paints, coatings and inks“			

PRODUCTION AND PROCESSING OF PAINTS, COATINGS AND PRINTING INKS

- 08.30 - 09.15 Manufacturing of digital inks. requirements, challenges and solutions
S. Requena | NETZSCH Grinding & Dispersing
- 09.15 - 09.45 Optimization of the grinding process of printing inks with the new high performance mill
A. Lauke | NETZSCH Grinding & Dispersing
- 09.45 - 10.15 First industry test results of packaging ink production with NETZSCH Neos technology
Dr. H.H. Stender | Siegwerte Druckfarben AG & Co KG aA
- 11.00 - 11.30 Try and Error was yesterday - How to achieve better dispersing results with realtime process analysis
U. Köpke | Exakt Advanced Technologies GmbH
- 11.30 - 12.00 Production and processing of carbon suspensions
S. Wawra | Institute of Particle Technology Erlangen (LFG)
- 12.00 - 12.30 Implementation of latest bead mill technology in production
Dr. B. Schönstedt | Siegwerte Druckfarben AG & Co KG aA
- 14.30 - 15.00 Challenges pumping highly loaded and high viscosity products in the printing industry
R. Willis | NETZSCH Pumps & Systems
- 15.00 - 15.30 The new generations of grinding media and parameters for cost reductions
Dr. A. Müller | Sigmund Lindner

CHARACTERIZATION AND PARTICLE SIZE DISTRIBUTION FORMULATIONS, FUNCTIONALIZATION THROUGH ADDITIVES

- 08.30 - 09.15 Optimizing rheology for paint and coating applications
T. Remmler | Malvern Instruments GmbH
- 09.15 - 09.45 From real time and accelerated stability studies towards shelf life prediction
Prof. Dr. Dr. D. Lerche | LUM GmbH
- 09.45 - 10.15 Online methods to characterize the particle size during processing
Dr. F. Wolff-Fabris | EZD - European Center for Dispersion Technologies
- 11.00 - 11.30 Watching paint dry: relating paint gloss to the particle size of extender pigments
Andreas Ludwig | Malvern Instruments GmbH
- 11.30 - 12.00 Characterization of the behavior of powder coatings supplemented
E. Riedl | Anton Paar GmbH
- 12.00 - 12.30 Formulation strategies to enhance mechanical properties of thin coatings
J. Hesselbach | IPAT Institute for Particle Technology - Braunschweig
- 14.30 - 15.00 Functional fillers with chemical modification – benefits and challenges
Dr. S. Eiberweiser | Gebrüder Dorfner GmbH & Co.
- 15.00 - 15.30 Preparation of submicron metal oxide powder such as ZrO₂, Al₂O₃ or ZrO₂-toughened alumina (ZTA) using pulsation reactor technology and study dispersion behavior as well as granulation after spray drying for ZTA particles
T. Khalil | IBU-tec advanced



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