ETCC 2024

EUROPEAN TECHNICAL COATINGS CONGRESS

"COATINGS EVOLUTION"

DAILY PROGRAMME

ETCC2024 -European Technical Coatings Congress-
will take place on 23–24–25 September 2024
in the Palace of the Popes of Avignon (France).

For all information and registration on line

visit our website: www.etcc2024.org

SUNDAY 22 SEPTEMBER 2024 - PM

PROGRAMME OF SUMMER SCHOOL

"SUMMER SCHOOL" is the seminar taking place on Sunday, September 22 from 2 p.m. to 5.30 p.m. prior to the ETCC2024.
Lectures and presentations are dedicated mainly for young scientists, PhD students and students.

Dr. Christel PIERLOT, Teacher Researcher, CENTRALE LILLE INSTITUT (Unité de Catalyse et de Chimie du Solide)
Experimental design in coatings
To develop coatings formulations, it is important to analyse the effect of several factors affecting their properties. Two standard two-level Hadamard and factoriaF designs will be presented pointing out effect of factor and benefits for coatings development.

Jordan BASSETTI, 3rd year PhD Student, CENTRALE LILLE INSTITUT (Unité de Catalyse et de Chimie du Solide)
Particle wettability: Concepts, theoretical aspects, and application of the Washburn method
In a paint formulation, a pigment is a finely dispersed solid material that contributes color and opacity, with its wettability playing a crucial role in facilitating even dispersion and adhesion within the liquid medium. The Washburn method offers quantitative measurements of particle wettability, enabling the study of wetting kinetics, comparison of materials, and formulation optimization.

Dr Thierry LACOUR, R&D Director & Company Manager, BIOPRESERV France
Biocides: an essential raw material for water-based formulations
Biocides are an essential molecules family permitting long life of water-based formulations such as paint, material, surfaces, cosmetics, detergents... In Europe, biocides are regulated by the Biocide Product Regulation (BPR). An overview of biocide application, product type based on BPR and efficacy testing will be shared.

Dr Alain CARRE, Consultant, Teacher, AFPEV
Fundamentals of wetting and adhesion
Wetting and adhesion are of considerable importance to many aspects of industrial operations. We will recall the notions of surface tension for a liquid and surface energy for a solid. Knowledge of these parameters is valuable for understanding many surface/interface phenomena such as adhesive bonding. But the energy of rupture of an assembly is generally much greater than the reversible work of adhesion deduced from the surface energies. The rheological model of adhesion shows that the separation energy measured for example with a peel test depends on the reversible work of adhesion and on the energy dissipated by the adhesive. Continuing this theory, another dissipation phenomenon was then highlighted and will be explained. To finish, molecular orientation at polymer interfaces will be described. We will see how this phenomenon may contribute to the establishment of strong chemical bonds between a polymer and its substrate.

Dr. Nicolas MOUGIN, Technical Manager and co-founder of RHEONIS
Coating product physical behaviour and challenges for predictive instrumental methods
Coating product research and development involves a broad variety of tools and methods, aimed at providing a full-spectrum overview of product behaviour in laboratory environment. Rudimentary technical apparatus neighbors sophisticated scientific instrumentation in order to provide a qualitative and quantitative determination of formula properties and behaviour. Nevertheless, predicting behaviour-in-use remains challenging in many contexts, especially in industrial contexts.
This conference intends to discuss such challenges in connection with instrumental methods and to provide guideline for questioning their predictive ability. What does it take for a measurement method to become predictive ? What is predicted ? Under which limits ? We will focus on product physical behaviour, related to rheological, interfacial and physico-chemical dynamical aspects.

MONDAY 23 SEPTEMBER 2024 - AM

	Room BENOIT 12	Room TRESORIER	Room GRAND PROMENOIR
09.00 - 09.45	**OPENING CEREMONY**		
09.45 - 10.30	**PLENARY CONFERENCE** 77 - Collaboration is the quickest way to sustainable coatings VAN LINDEN Andre **AKZO NOBEL**		
10.30 - 11.00	*Coffee Break*	*Coffee Break*	*Coffee Break*
	Session SMART COATINGS	**Session BIOBASED SOLUTIONS**	**Session BUILDING MATERIALS**
11.00 - 11.30	49 - Zeolite-supported TiO2 for acetone photo-oxidation: Kinetic insights DE GRAAF Mirjam **UTRECHT UNIVERSITY**	2 - Bio-based coatings applied to innovative mycelium materials for the fashion and automotive industry BEGUE Delphine **ITECH**	1 - Impregnation of oil on surfactant-clay particles: Solid/liquid interaction in geopolymers BASSETTI Jordan **CENTRALE LILLE INSTITUT UCCS**
11.30 - 12.00	51 - Application of multi-functional poly(phosphorylcholine) coatings MUENCH Alexander **LEIBNIZ INSTITUTE OF POLYMERS**	50 - Purely bio-based and sustainable binders A big challenge or a nice opportunity LUNDSTEN Gun **CH-POLYMERS OY**	21 - Silicone additives that enhance coating durability in ETICS TURGUT Hatice **DOW**
12.00 - 12.30	59 - Fire-retardant acrylic coating by silica -coated limestone (SCL) microencapsulation UZOH Chigozie **NNAMDI AZIKIWE UNIVERSITY**	53 - Bio-based additives, sustainable solutions for coil coating DOS SANTOS Camila Helena **DYNEA AS**	24 - Protect your exterior façade coatings with quick set technologies - Improvement PETERS Oliver **EVONIK COATING ADDITIVES**
12.30 - 13.30	*Lunch Break*	*Lunch Break*	*Lunch Break*

MONDAY 23 SEPTEMBER 2024 – PM

	Room BENOIT 12	Room TRESORIER	Room GRAND PROMENOIR
	Session ADVANCES IN PROCESSING AND PRODUCTION	**Session CORROSION PROTECTION**	**Session MEASURING AND TESTING**
13.30 - 14.00	3 - One shot matte powder coatings BONGAERTS Jan **COVESTRO**	4 - Stable graphene dispersions: multi-properties anticorrosion additives BOTTEIN Thomas **CARBON WATERS**	33 - Wettability, contact angle, and surface energy: Do's and don'ts SEVENO David **KU LEUVEN**
14.00 - 14.30	29 - Process principles and formulation of redispersible powder coatings AGGEZ Okan **DENMARK TECHNICAL UNIVERSITY**	7- Eco-friendly corrosion inhibitors from fruit waste: A study on N-Doped carbon dots derived from pistachio shells for protecting carbon steel MARDANI Shiba **INSTITUTE FOR COLOR SCIENCE & TECHNOLOGY**	35 - How to qualify coating products and achieve a green card to market? DONG Qian **DNV**
14.30 - 15.00	30 - The upsides and challenges of overspray-free paint application BOSMA Martin **ALLNEX**	28 - Corrosion inhibiting coatings: Lignin phosphate as a bio-based alternative to zinc phosphate CHAUDHARI Tushar **TECHNICAL UNIVERSITY OF DENMARK**	41 - Thermographic method for evaluation of corrosion test panels DOESSEL Karl-F. **ORONTEC**
15.00 - 15.30	32 - Innovative powder airbrush technique opens new markets for solvent-free powder coating CUDAZZO Markus **FRAUNHOFER IPA**	56 - Corrosion behavior of electrocoated 6082-T6 & S500 dissimilar joints MUTLU Mirac **FORD OTOSAN**	42 - When additives go on a stroll – How to check for a stable formulation STALMACH Ulf **ORONTEC**
15.30 - 16.00	*Coffee Break*	*Coffee Break*	*Coffee Break*
	Session ADVANCES IN PROCESSING AND PRODUCTION	**Session FORMULATION**	**Session ADVANCES IN SCIENCES OF PAINTS, ADHESIVES, INKS**
16.00 - 16.30	34 - Development of ultra-thin, rapid-cured, self-bonding coating electrical steel for high efficiency EV motor HSIN-WEI Lin **CHINA STEEL CORPORATION**	19 - How composite pigments improve coating opacity and ultimately result in improved sustainability WHITE Andy **FP-PIGMENTS**	6 - Silylated polyurethane resin systems New technology for PFAS free protective coating solutions CHERNYSHOV Dmitry **MOMENTIVE**
16.30 - 17.00	37 - Biocide-free concepts for in-can and film preservation SAUER Christopher **BASF SE**	36 - Polysiloxane wetting and defoaming additives for water-borne coatings LEVCHENKO Vladimir **DYNEA AS**	8 - Environmentally friendly low temperature cross-linking system MORIWAKI Yuya **KYOEISHA CHEMICAL**
17.00 - 17.30	45 - Excimer matting controlling the gloss of aqueous coating compositions VAN CASTEREN Ilse **COVESTRO**	46 - New functional silicone additive for architectural coatings CHEIKH Christophe **WACKER CHEMIE**	9 - Eco-friendly plasma polymerized PFAS-free icephobic coatings MOSTOFI SARKARI Navid **KU LEUVEN**
17.30 - 18.00	60 - Appraisal of mathematical modeling of alkyd resin polycondensation reactor UZOH Chigozie **NNAMDI AZIKIWE UNIVERSITY**	69 - Digital approach to formulation design using Monte Carlo simulation SUETTERLIN Jan **COVESTRO DEUTSCHLAND**	11 - 1K crosslinking system for blends of polyurethane / polyacrylic dispersions PAULUS Wolfgang **BASF SE**

TUESDAY 24 SEPTEMBER 2024 - AM

	Room BENOIT 12	Room TRESORIER	Room GRAND PROMENOIR
09.15 - 10.00	**PLENARY CONFERENCE** 62 - Heat shielding and flame retardancy from polyelectrolyte-based nanocomposite coatings GRUNLAN Jaime C. **TEXAS UNIVERSITY**		
	Session CARBON FOOT PRINT & DECARBONATION	**Session CORROSION PROTECTION**	**Session MEASURING AND TESTING**
10.00 - 10.30	16 - Mass balance boosts sustainability of energy-curable PU dispersions TIELEMANS Michel **ALLNEX**	66 - Anticorrosion efficiency of zinc-filled epoxy ester coatings containing conducting polymer PANI-PTSA RAYCHA Yash **UNIVERSITY OF PARDUBICE**	63 - Optimize quality, reduce costs and save resources through efficient testing processes GAUSSMANN Fabian **OPTISENSE**
10.30 - 11.00	*Coffee Break*	*Coffee Break*	*Coffee Break*
11.00 - 11.30	38 - Advantages and issues of state-of-the-art methods to substitute fossil raw materials in coating and inks with renewable alternatives SLOOT Tim Frederic **EVONIK OPERATIONS**	67 - Hybrid coatings with hydrotalcites: a study on mechanical properties CALDERON PEREA Nataly Elizabeth **UNIVERSIDAD CARLOS III OF MADRID**	74 - Understanding and improving the water resistance of waterborne binders LOTTIER Simon **ARKEMA**
11.30 - 12.00	73 - Waterborne alkyd emulsion, a solution to decarbonize wall, wood and metal decorative paints DELMAS Grégory **ARKEMA**	70 - Project CoFoMag Part I: Magnesium surface pretreatment system SERAFIN Daria **LUKASIEWICZ - WARSAW INSTITUTE OF TECHNOLOGY**	78 - Changes in coating properties during aging tests depending on the type of pigment LANGER Ewa **LUKASIEWICZ RESEARCH NETWORK**
12.00 - 12.30		71 - Project CoFoMag Part II: Flexible self-lubricating powder coatings GEDAN-SMOLKA Michaela **IPF DRESDEN**	99 - Analysis of TiO2 breakage in a bead mill–modelling and experiments KRZOSA Radoslaw **WARSAW INSTITUTE OF TECHNOLOGY**
12.30 - 13.30	*Lunch Break*	*Lunch Break*	*Lunch Break*

TUESDAY 24 SEPTEMBER 2024 – PM

	Room BENOIT 12	Room TRESORIER	Room GRAND PROMENOIR
	Session CARBON FOOT PRINT & DECARBONATION	**Session CORROSION PROTECTION**	**Session ADVANCES IN SCIENCES OF PAINTS, ADHESIVES, INKS**
13.30 - 14.00	89 - Carbon neutrality: improvements and expectations of a paint applicator FIORANI Thomas **FORVIA FAURECIA**	91 - Is fractionation essential for lignin's role in anticorrosive coatings RAJAGOPALAN Narayanan **TECHNICAL UNIVERSITY OF DENMARK**	13 - How cerium oxide affects weathering resistance of a superhydrophobic coating RAFIEI HASHJIN Rana **INSTITUTE FOR COLOR SCIENCE & TECHNOLOGY**
	Session BUILDING MATERIALS	**Session BIOBASED SOLUTIONS**	
14.00 - 14.30	65 - How do intumescent coatings work to save lives? BAUDE Christophe **SYNTHOMER**	54 - Pentamethylene diisocyanate: a building block for sustainable PU coatings and adhesives EGGERT Christoph **COVESTRO DEUTSCHLAND**	108 - Evaluation of corrosion protection and antifouling efficiency of fouling release coatings on copper alloys TUBARO Erica **UNIVERSITY OF UDINE**
14.30 - 15.00	76 - Solar reflectivity of exterior architectural coatings FERNANDO Raymond **CALIFORNIA POLYTECHNIC STATE UNIVERSITY**	58 - Utilization of vegetable oils in the synthesis of latex coating binders KOLAR Martin **UNIVERSITY OF PARDUBICE**	27 - Alternatives to fluoro-based additives in coatings and inks REINARTZ Roger **EVONIK OPERATIONS**
15.00 - 15.30	90 - Thermal insulation paint formulation and its energy saving properties GHORBANI Fateme **ALVAN PAINT AND RESIN MANUFACTURER**	83 - Functionalized sustainable carbon materials and lignin derivatives for radical photopolymerization in coating sciences STREHMEL Bernd **NIEDERRHEIN UNIVERSITY OF APPLIED SCIENCES**	39 - Improvement of water resistance of latex coatings by various approaches MACHOTOVA Jana **UNIVERSITY OF PARDUBICE**
15.30 - 16.00	*Coffee Break*	*Coffee Break*	*Coffee Break*
16.00 - 16.30	110 - Effect of curing conditions and polymer-cement ratio on the properties of latex-modified cement coatings NANCEY Pierre-Marie **UNIVERSITY OF TOULON**	98 - Pine derivatives. Pioneering solution for a sustainable packaging industry ZILLI Dario **LAWTER EUROPE**	47 - Modified alpha-silane-terminated polyether A new hybrid binder for innovative surface protection ANDERS Udo **WACKER CHEMIE**
	Session WOOD AS SUBSTRATE		
16.30 - 17.00	44 - How to assess the cracking risk of coatings? PODGORSKI Laurence **FCBA BORDEAUX**	105 - Using Biopolymers in Green Paints and Coatings Development KARAVAYEV Taras **STATE UNIVERSITY OF TRADE AND ECONOMICS**	79 - Bio-based type I photoinitiator: Carbon dots with oxygen tolerance WANG Qunying **NIEDERRHEIN UNIVERSITY OF APPLIED SCIENCES**
17.00 - 17.30	64 - No need to sacrifice performance when formulating sustainable wood coatings with high-performance catalysts HELKER Dietmar **BORCHERS**	100 - Innovating for sustainability: Recent advances in bio-based polymers and coatings within the bioeconomy sector ZAKY Samir **BIOECONOMY FOR CHANGE**	84 - Towards outperforming and more sustainable vinylic polymers MALAVOLTI Marino **VINAVIL**
17.30 - 18.00	68 - More sustainable WB binders and coatings from LIFE-WB BioPaint VITALE Marcello **IVM CHEMICALS**	109 - Renewable dent corn as building block monomer and bio-solvent for the resin and coatings industry VAN WAES Patrick **COVATIONBIO|PDO**	96 - Opacifying silica microspheres for replacing titanium dioxide in paints TALBOTIER Gilles **GAMMA TECH**

WEDNESDAY 25 SEPTEMBER 2024 - AM

	Room BENOIT 12	Room TRESORIER	Room GRAND PROMENOIR
09.15 - 10.00	**PLENARY CONFERENCE** 12 - Formulation, processes and concepts PIERLOT Christel **CENTRALE LILLE INSTITUT UCCS**		
	Session ADVANCES IN SCIENCES OF PAINTS, ADHESIVES, INKS	**Session SUSTAINABILITY**	**Session BUILDING MATERIALS**
10.00 - 10.30	103 - Light triggered curing of pigmented alkyd paints using iron condensed arene complexes - The riskiest way to make paint TOLBOOM Jens **UNIVERSITY OF AMSTERDAM**	55 - Sustainable emulsions as binder for paints and coatings KRIEGER Stephan **CELANESE**	93 - Unlocking the potential of minerals to enhance the UV durability of exterior facade paints ESTEVA Hugo **IMERYS**
10.30 - 11.00	*Coffee Break*	*Coffee Break*	*Coffee Break*
11.00 - 11.30	104 - Titanium Dioxide – A regulatory and innovational update WILKENHOENER Uwe **KRONOS**	61 - Sustainable hydrocarbon solvents: Bio-sourced solutions and a carbon neutral offer BAUER Thorsten **TOTALENERGIES FLUIDS**	94 - Latest innovation in the Low-Exudation-Binder (LEB) technology for masonry coatings SECHER Maurille **SYNTHOMER**
11.30 - 12.00	17 - Properties of keratin particles as a functional filler WANNER Matthias **FRAUNHOFER IPA**	86 - Sustainable solution for acrylic emulsions in ERC and ETICS COLLINSON John **DOW CHEMICAL COMPANY**	97 - Shocking: Graphene enhances conductivity! MARTIN Ian **FIRST GRAPHENE**
12.00 - 12.30	40 - Visible light active photocatalytic coatings for health care BAUDER Christina **FRAUNHOFER IPA**	87 - Safe and sustainable by design replacement of PFAS in water and oil-repellent glass-like hybrid coatings POELMAN Mireille **MATERIA NOVA**	101 - Incorporation of embedded materials for thermal regulation of buildings BOLAND Yann **CENTRALE LILLE INSTITUT UCCS**
12.30 - 13.30	*Lunch Break*	*Lunch Break*	*Lunch Break*

WEDNESDAY 25 SEPTEMBER 2024 – PM

	Room BENOIT 12	Room TRESORIER	Room GRAND PROMENOIR
	Session ADVANCES IN SCIENCES OF PAINTS, ADHESIVES, INKS	**Session SUSTAINABILITY**	**Session ADVANCES IN PROCESSING AND PRODUCTION**
13.30 - 14.00	26 - Controlling the surface properties of LED and standard UV-curing coatings and inks STRUCK Susanne **EVONIK OPERATIONS**	102 - CNSL Oxyacetic acid, a new binder for the formulation of waterborne paints LEMAIRE Marc **UNIVERSITE CLAUDE BERNARD LYON 1**	95 - Fouling behavior of aged fouling release coating in underwater cleaning LIN Shujie **TECHNICAL UNIVERSITY OF DENMARK**
		Session FORMULATION	
14.00 - 14.30	112 - Oleochemicals - Derivatives of fatty acid amides in alkyd-urethane coatings SUVOROVA Yuliia **UKRAINIAN STATE UNIVERSITY OF CHEMICAL TECHNOLOGY**	88 - Challenges for formulators in complying with product regulations SAUVAN Nancy **FIPEC**	15 - Barrier coating SCHEERDER Jurgen **COVESTRO**
	Session COLOR AND DYES		
14.30 - 15.00	92 - Improved dispersion and stability of natural hybrids pigments VOLLE Nicolas **PIGM'AZUR**	72 - High performances coating additives in different market applications: focus on Orgasol® & Rilsan® polyamides powders BASSET Maud **ARKEMA**	52 - Digitalization and the paint industry - Why do we need a smart paint factory alliance? STALMACH Ulf **ORONTEC**
			Session ADVANCES IN SCIENCES OF PAINTS, ADHESIVES, INKS
15.00 - 15.30	85 - Influence of modified oxidic pigments on photopolymerization of epoxidized plant oil STREHMEL Veronika **NIEDERRHEIN UNIVERSITY OF APPLIED SCIENCES**	75 - How to enhance paint properties with our latest innovations on polyurethane thickeners TRANG Yohann **ARKEMA**	14 - Development of a chemical-resistant coating: A comparative study REIAN Gard **JOTUN**
15.30 - 16.00	*Coffee Break*	*Coffee Break*	*Coffee Break*
16.00 - 16.30	20 - Using composite TiO2 pigments to reduce the use of coloured pigments hence reducing cost and carbon footprint WHITE Andy **FP-PIGMENTS**	10 - Sustainable coatings solutions that make the difference MYLVAGANAM Sinthuya **SYENSQO (SOLVAY)**	107 - Covalently bound and environmentally friendly coatings for skis FAN Xin **ZURICH UNIVERSITY OF APPLIED SCIENCES**
16.30 - 17.00	**PLENARY CONFERENCE** 23 - Colours and cities NOURY Larissa **COLOUR-SPACE-CULTURE**		
17.00 - 17.30	**CLOSING CEREMONY AND AWARDS** 		

LIST OF POSTERS

BYK CHEMIE	WEISS Sebastian	Novel amphiphilic block copolymers as dispersing additives
GROUPE BERKEM	MESSAOUDI Daouia	Potential of plant polyphenolic extracts from Berkem Biosolutions® as in-can preservatives for paints and coatings
IEPCO	FOAD KAZEMI Madj	Coating maintenance of infrastructure
INST. FOR COLOR SCIENCE & TECHNOLOGY	RANJBAR Zahra	Energy saving via paint and coatings: Advanced technologies and applications
LECHLER	ORTELLI Marzia	Synthesis of bio-inspired high solid hydroxylated acrylic castor oilmodified
LEITAT	CABRER PALOMES Aina	Thermal curing versus machine learning infrared curing system for powder paint industrial coatings.
LEITAT	PALMER Javier	Coatings with embedded microchannels for efficient cooling in electric cells
LUKASIEWICZ RESEARCH NETWORK	ZUBIELEWICZ Malgorzata	Formulation and characterization of bioactive camouflage paints
LUKASIEWICZ RESEARCH NETWORK	KAMINSKA-BACH Grazyna	Water-based zinc primers – The dependence of properties on the type of zinc pigment
LUKASIEWICZ RESEARCH NETWORK	JURCZYK Sebastian	Formulation and characterization of bioactive camouflage paints
MOMENTIVE	KENSBOCK Philip	PFAS-free functional high performance coatings
TECHNICAL UNIVERSITY OF MUNICH	SKOPP Ameli	Catalytic bio-hybrid coating-based degradation of haloalkanes in the gasphase
UMONS	MALEKKHOUYAN Roya	Corrosion protection of Mg alloy by LDH coating and anionic surfactant
UNIVERSITY OF PARDUBICE	FOLTYN Tomas	Catalytic activity of vanadium-based drier in air-drying paints
UNIVERSITY OF TOULON	PERRIN François-Xavier	The role of silica as reinforcing agent in primer formulations for the adhesion of high consistency silicone rubber on metals