EUROPEAN TECHNICAL COATINGS CONGRESS 2014

New Functions and Sustainability – Drivers for Future Coatings

3 – 5 September 2014
Gürzenich · Cologne · Germany

PROGRAMME

www.etcc2014.org
SOLUTIONS FROM DOW COATING MATERIALS

WE’RE DRIVING FUNDAMENTAL SHIFTS IN THE COATING INDUSTRY

Dow Coating Materials is one of the leading coatings raw materials supplier, serving the global architectural and industrial coatings markets with innovative materials and technologies that drive sustainable development in the industry.

We collaborate closely with customers to develop end-use products that are faster and easier to use, resist stains, enhance air quality, provide longer-lasting protection, and use fewer natural resources.

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— Reducing environmental impact
— Enhancing durability
— Advancing interior and exterior paint performance
— Enabling smart coatings that respond to external stimuli

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Dear Madame or Sir,
Dear Colleagues,

Nowadays, sustainability, especially in the field of the coatings industry, is of great relevance, including keywords like e.g. durability, low-emission, resource-conserving, or even smart. These and other special properties have become the basic requirements of modern coatings and paints during the last decade.

We are very proud to invite you to our ETCC 2014 as one the most important European congresses for coatings science and industry. You will profit from our two-pillar structure of this congress to the motto of “New Functions and Sustainability – Drivers for Future Coatings”.

On the one hand, industrial partners will benefit from the presentation of the latest trends, technologies and innovative products. On the other hand, poster sessions and the scientific programme provide to broaden the spectrum of knowledge on a high level, and also give an opportunity to compare ideas and to discuss old and new questions. At the ETCC you will find both – experts from industry and versed scientists at the same time.

The ETCC will take place in Cologne, representing a famous trade hub as well as a charming historic city, with many cultural facets.

We are very much looking forward to meet you there!

COLOGNE – THE RHINE METROPOLIS
The congress venue Gürzenich is a pretentious medieval festival hall, originally dating from the 15th century. It was named after its first owner family, and is located in the today’s historic city centre of Cologne, Germany.

The so-called Rhine metropolis is a multifaceted major city with a population of more than one million, with a 2,000 years-old history.

The 800 years old Cologne Cathedral (Kölner Dom) is probably the most famous landmark of the city. With its spire of 157 m height, the gothic Cathedral is the third-tallest church building in the world, and has already been registered as World Heritage Site.

In 1930, the German subsidiary of the US Ford Motor Company moved to Cologne, where nowadays the company’s European headquarter is situated. In the year of construction commencement, Henry Ford himself arrived to attend the foundation stone ceremony. As another claim to fame, close to the railway station “Messe/Deutz”, visitors may behold the Otto engine (1876) monument, when leaving the building via Otto Square (Ottoplatz).

However, not only the automotive industry, but also several other large business groups have settled in the Rhine metropolis, including chemical industry as a leading sector in the region.

Thanks to public research institutions, such as the German Aerospace Centre and advanced research into biotechnology, Cologne has a top position in science and research. The Rhine metropolis pro-
vides the linkage of pharmaceutical and chemical industry within the so-called “Cologne chemical industry belt”.

Apart from business, Cologne is known for a very popular cultural event, which regularly attracts visitors from the whole world. The annual exceptional celebrations of Carnival (“Kölner Karneval”) temporarily transform the city centre into a vivid hot-spot, cheerfully according to the slogan “Kölle alaaf” (long live Cologne).

A visit of Cologne should also include the seasonally independent taste of a local speciality: the “Kölsch” beer, with over 1,000 years of brewing tradition. Conveniently, the city has a large diversity of traditional brewhouses, inviting to gain an insight into their authentic atmosphere.
The division’s tasks are:

• To actively support science and research in the field of coatings and pigments as well as their respective raw materials, products and technologies. This support should help to maintain the global competitiveness of the members.

• To improve the knowledge of chemists and technicians in the industry of coatings and pigments by the yearly organized coatings congress, dealing with actual and important topics of the industry, and by regional meetings e.g. in Leverkusen and in Stuttgart on selected topics as well as by coorganizing the European congress of FatIPEC.

• To provide expertise in technical and political questions of the European legislation.

The steering-board member of the section “Lackchemie”, Prof. Dr. Thomas Brock is the ESC-Chairman (European scientific committee) at ETCC 2014.

VILF: VERBAND DER INGENIEURE DES LACk- UND FARBENFACHS E.V.

The VILF Association of Coating Engineers was founded in 1955. In the early days, the members were graduated engineers coming from the main German paint engineers’ schools, who were not represented by the relatively restricted German Chemists association. Still today, most of the members are paint engineers, but also many chemists, paint technicians and even commercial employees have joined the VILF. In accordance with the statutes, the main goal is to improve the technical knowledge of the members by various measures. Nowadays, more than 70 companies support the association as company members, and more than 800 employees of the German paint and coatings industry, raw material suppliers, universities and institutes are represented by the VILF. Mr. Ludger Küper is the president of the VILF Association.

OCCA: THE OIL & COLOUR CHEMISTS’ ASSOCIATION

OCCA, a registered educational charity within the UK, is a members’ organization for technical professionals from laboratory, production, managerial, commercial, consultancy, service providers and educational roles across a spectrum of allied and associated industry sectors. Headquartered in the UK, OCCA is an international society and active across the world. Divisions, sections and branches exist in North America, Africa, Asia and Europe with membership covering many countries. Regional technical programmes and conferences are run on a local basis and OCCA manages itself through a series of committees at the higher, regional and local level for divisions and sections. Members work together devising and developing local programmes through to major events, contribute to the management and running of the organization, ensuring it provides benefits to both membership and industry by networking, interaction and creativity. The current president of the OCCA is Mr Keith Dobell, followed by Mr. Jim Bury mid of 2014.
**EUROPEAN SCIENTIFIC COMMITTEE (ESC)**

Chairman:
- Prof. Dr. Thomas BROCK  (DE, Lackchemie)
- Prof. Pier Luigi BONORA  (IT)
- Janos HAJAS  (HU)
- Prof. Dr. Eugene A. INDEIKIN  (RUS)
- Prof. Niki KOLOMBI  (GR)
- Dr. Bernard LESTARQUIT  (FR)
- Dr. David PIERRE  (BE)
- Dr. Wolfgang REISSER  (CH)
- Dr. Heinz-Günter SCHULTE  (DE, VILF)
- Prof. Dr. Ing. Jaromir SNUPAREK  (CZ)
- Leo VAN DER VEN  (NL)
- Prof. Dr. Maria ZIELECKA  (PL)

**NATIONAL SCIENTIFIC COMMITTEE (NSC)**

Chairman:
- Dr. Michael HILT  
  Forschungsgesellschaft für Pigmente und Lacke e.V.
- Prof. Dr. Hans-Jürgen ADLER  
  Pirna
- Prof. Dr. Wolfgang BREMSE  
  University of Paderborn
- Prof. Dr. Thomas BROCK  
  University of Applied Sciences Niederrhein
- Dr. Matthijs GROENEWOLT  
  BASF Coatings GmbH
- Ludger KÜPER  
  Dow Coating Materials
- Dr. Rüdiger MERTSCH  
  Evonik Industries AG
- Dr. Hans-Ulrich MEIER-WESTHUES  
  Bayer MaterialScience AG
- Dr. Norbert PIETSCHEMANN  
  Institut für Lacke und Farben e.V.
- Dr. Bernhard SCHULER  
  BASF SE
- Dr. Heinz-Günter SCHULTE  
  BASF PCN
- Prof. Dr. Bernd STREHME  
  University of Applied Sciences Niederrhein
- Dr. Hans-Joachim STREITBERGER  
  Münster
- Prof. Dr. Elke von SEGGERN  
  University of Applied Sciences Esslingen
- Prof. Dr. Jochen WINKLER  
  Kerken

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**Synthopol forms stable connections**

The things that people are seeing every day, and touching and using, are increasingly found to be covered, fastened and enhanced by products that would not be possible without SYNTHOPOL, and whose basic properties are determined by our work.

SYNTHOPOL is the synthetic resins specialist. We are a globally networked family firm with strong local roots – large enough for complex tasks, and mobile enough for fast customised development and a personal service.
Wednesday, 3 September 2014

**Großer Saal**

**09:00** CONGRESS OPENING

**09:30** PLENARY LECTURE 1
Smart and functional materials
J. Baghdachi, Ypsilanti/US, H. Perez, Freiburg/DE

**10:10** PLENARY LECTURE 2
Strategies for a more sustainable coatings industry
K. Watson, Collegeville/US, H. Kheradmand, Valbonne/FR

**10:50** COFFEE BREAK

**FUNCTIONAL COATINGS**

**11:20** Ordered liquids from molecular mess: Self-assembly of novel bola-amphiphiles
H. Hintze-Bruening, Münster/DE, T. Lohmeier, Münster/DE

**11:50** Ionic Liquids as Conductivity Promoters in Coatings Applications

**12:20** Ionic liquids as innovative materials for the stabilization of multifunctional nanofluids
T. J. S. Schubert, Heilbronn/DE, J. Wimberg, Heilbronn/DE

**12:50** LUNCH BREAK

**13:50** Nanofibrillated cellulose in wood coatings – a feasibility study
T. Künniger, Dübendorf/CH, F. Grüneberger, Dübendorf/CH, T. Zimmermann, Dübendorf/CH, M. Arnold, Dübendorf/CH

**14:20** The use of functionalized nanoparticles for surface properties enhancement of coatings for wind energy and aerospace
G. Durand, Cambridge/GB, A. Taylor, Cambridge/GB, D. De Bono, Middlesbrough/GB

**14:50** COFFEE BREAK

**15:20** Controlled synthesis and application of silver nanoparticles in coatings for inhibition of microbial growth and biofouling formation
T. Szabó, Budapest/HU, J. Telegdi, Budapest/HU, L. Nyikos, Budapest/HU

**15:50** Towards more reliable sol-gel coatings by combined extrinsic and intrinsic healing
M. Abdolah Zadeh, Delft/NL, S. van der Zwaag, Delft/NL, S. J. Garcia, Delft/NL

**16:20** Scratch resistant and outdoor weatherable coatings – applied nanotechnology and functional properties

**17:00** General Meeting VILF

**18:30** BREAK

**19:30** GET-TOGETHER
Brauhaus Sion
FARBEUNDLACK // PREIS 2014 by Vincentz Network
Get-together, sponsored by BASF SE and Bayer MaterialScience

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**Kleiner Saal**

**09:00** CONGRESS OPENING

**09:30** PLENARY LECTURE 1
Smart and functional materials
J. Baghdachi, Ypsilanti/US, H. Perez, Freiburg/DE

**10:10** PLENARY LECTURE 2
Strategies for a more sustainable coatings industry
K. Watson, Collegeville/US, H. Kheradmand, Valbonne/FR

**10:50** COFFEE BREAK

**CORROSION PROTECTION**

**11:20** KEYNOTE LECTURE
In-situ analytical and electrochemical evaluation of interfacial bonding and performance of corrosion protective coatings
J. M. C. Mol, Delft/NL

**11:50** What happens during the swelling of a coating?

**12:20** New substrates influencing the pretreatment process
P. Kühn, Düsseldorf/DE, J. Kroemer, Düsseldorf/DE

**12:50** LUNCH BREAK

**13:50** New aspects in corrosion protection with polymer dispersions
U. Christ, Stuttgart/DE, R. Nothelfer-Richter, Stuttgart/DE

**14:20** New 2-layer epoxy coating system achieving excellent corrosion protection and UV-stability

**14:50** COFFEE BREAK

**15:20** Effective sol-gel derived protective coatings to prevent the corrosion of steel in marine environment
S. Pfeifer, Freiberg/DE, E. Kroke, Freiberg/DE

**15:50** Towards more reliable sol-gel coatings by combined extrinsic and intrinsic healing
M. Abdolah Zadeh, Delft/NL, S. van der Zwaag, Delft/NL, S. J. Garcia, Delft/NL

**16:20** Scratch resistant and outdoor weatherable coatings – applied nanotechnology and functional properties

**17:00** General Meeting Lackchemie

**18:30** BREAK

**19:30** GET-TOGETHER
Brauhaus Sion
FARBEUNDLACK // PREIS 2014 by Vincentz Network
Get-together, sponsored by BASF SE and Bayer MaterialScience

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Wednesday, 3 September 2014

**Congress Opening**

09:00 - Großer Saal

**Plenary Lecture 1**

09:30 - Großer Saal

*Smart and functional materials*
J. Baghdachi, Ypsilanti/US, H. Perez, Freiburg/DE

**Plenary Lecture 2**

10:10 - Großer Saal

*Strategies for a more sustainable coatings industry*
K. Watson, Collegeville/US, H. Kheradmand, Valbonne/FR

10:50 - Coffee Break

**Sustainability in the Coatings Field**

11:20 - Kleiner Saal

*Feedstock in transition – a manufacturer's perspective on petrochemical trends and the downstream impact to the coatings market*
K. Kohlhammer, Burghausen/DE

11:50 - Coffee Break

12:20 - Kleiner Saal

*Influence of isosorbide to polyurethane dispersions for wood coatings application*
C. Schirp, Braunschweig/DE, S. Eisig, Braunschweig/DE

12:50 - Lunch Break

13:50 - Kleiner Saal

*Investigation the cathodic electrodeposition behaviour of chitosan biopolymer in different solid content*
S. Heydarian, Tehran/IR, Z. Ranjbar, Tehran/IR, S. Rastegar, Tehran/IR

14:20 - Kleiner Saal

*Silicone-hybrid technology for modern and resource efficient high solid coatings*

14:50 - Coffee Break

15:20 - Kleiner Saal

*Lactide-modified polyester resin with enhanced resin- and coating performance*
B. van Leeuwen, Gorinchem/NL, C. Schaekens, Gorinchem/NL, P. Cordfunke, Gorinchem/NL

15:50 - Kleiner Saal

*New generation of cobalt-free alkyd emulsion paints with non-oxidative drying mechanism*
A. Romand, Grasse/FR, B. Chorein, Lyon/FR, O. Choulet, Grasse/FR

16:20 - Kleiner Saal

*Sustainability – a special challenge for a medium-sized binder manufacturer*
T. Adebahr, Hamburg/DE, D. Chmielkowski, Hamburg/DE

18:30 - Break

19:30 - Get-together

*Farbe und Lack Preis 2014 by Vincentz Network*

Get-together sponsored by BASF SE and Bayer MaterialScience

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**Make the Move**

To a High-Solids, High-Performance Binder with VINNAPAS® EP 3360

- Do you want to formulate interior paints that combine high performance and environmental benefits at an advantageous cost/benefit ratio? Make the move to VINNAPAS® EP 3360!
- This vinyl acetate-ethylene (VAE) copolymer dispersion stands out due to its:
  - High solids content of 60%, increasing your formulation flexibility
  - Wide PVC formulation range, allowing a wide range of end products
  - Outstanding balance of performance and environmental benefits such as excellent scrub resistance, low odor and low VOC content (< 2 g/l)

Wacker Chemie AG, 81737 München, Germany, Tel. +49 89 6279-1741, info@wacker.com, www.wacker.com/move
**FUNCTIONAL COATINGS**

**08:30**  
Self-replenishing functional coatings: Repairing surfaces  
C. Estavees, Eindhoven/NL

**09:00**  
Functional coatings for improving indoor air quality  

**09:30**  
Anti-freeze coatings – the next generation of anti-ice coatings  
P. Uhlmann, Dresden/DE, S. Höhne, R. Winkler, R. Frenzel, Dresden/DE

**10:00**  
Enzymatically triggered protein coatings  
O. I. Strube, Paderborn/DE

**10:30** Coffee Break

**11:00**  
Novel colour stabilization concepts for decorative surfaces made of dark wood and TMT  
J. Prieto, Lünen/DE, M. Bayer, Dresden/DE, L. Passauer, Dresden/DE

**11:30**  
Degradation of a polyurethane coating in aggressive media  

**12:00**  
Colour retention in architectural paints  
N. Tissier, Ludwigshafen/DE, I. Cabrera, Ludwigshafen/DE

**12:30** LUNCH BREAK

**14:00**  
Dose-response functions for prediction of easy-to-clean performance of coil-coated materials  
T. Prosek, Brest/FR, A. Trabelsi, Paris/FR, D. Thierry, Brest/FR

**14:30**  
Photochemical attachment of water-absorbing hydrogel coatings to poly styrene to avoid turbidity in cold environments  
S. Grube, Winterthur/CH, K. Siegmann, Winterthur/CH, M. Hirayama, Winterthur/CH

**15:00**  
Development and characterization of functional coatings with dedicated thermo-optical properties for solar energy-related applications  

**15:30** Coffee Break

**16:00**  
Sustainable developments in the pigment industry  

**16:30**  
Impact of new EU-regulation on the usage of biocides  
H. Peters, Köln/DE, P. Clegg, Manchester/GB

**17:00**  
Application of ionic liquids in synthesis of polymeric binders for coatings  
V. Strehmel, Krefeld/DE, S. Berdzinski, Krefeld/DE, A. Wenda, Krefeld/DE

**17:30**  
Benzoate Technology for Coatings Applications  

**18:00** Break

**19:00** SOCIAL EVENING (River Dream party)  
Ship River Dream

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**CORROSION PROTECTION**

**08:30**  
Surface modification of mesoporous silica for improvement of compatibility with anti-corrosion coatings  

**09:00**  
Carbon fibre reinforced plastics – a challenge for surface treatment and painting  
V. Stenzel, Bremen/DE, Y. Wilke, A. Zockoll, K. Brune, G. Patzelt, Bremen/DE

**09:30**  
some surface phenomena at formation of coatings  
E. Indeikin, Jaroslavl/RU

**10:00**  
Innovative technologies and techniques for enhancing the application of architectural coatings  

**10:30** Coffee Break

**11:00** KEYNOTE LECTURE  
Silicone ceramizable rubbers: New solution for the emerging coatings  
M. Zieliecka, Warsaw/PL

**11:30**  
Sustainable UV-protection of coating layers using nanoscale organic and inorganic components  

**12:00**  
Automotive application processes: A focus on molecular migration  
A. Andersen, Münster/DE

**12:30** LUNCH BREAK

**14:00**  
Advanced rheology for waterborne paints, the key to good flow and application properties  
J. M. Akkerman, Bergen op Zoom/NL, R. Adolfs, R. van Egmond, J. Goossen, Bergen op Zoom/NL, A. Roelofs, Wageningen/NL, R. van der Horst, Wageningen/NL, M. Bosma, Wageningen/NL, D. Mestach, Bergen op Zoom/NL

**14:30**  
Influence of matting on the properties of powder epoxy-polyester coatings  
D. S. Kotova, Jaroslavl/RU, E. A. Indeikin, Jaroslavl/RU

**15:00**  
Hyper-branched structures for new functional additives  
P. Lenz, Wester/DE

**15:30** Coffee Break

**16:00** KEYNOTE LECTURE  
Photoinitiated cationic polymerization: Current developments and future prospects for coatings  
J. V. Givello, Troy/US

**16:30**  
Efficiency of near infrared curable coating systems via radical photopolymerization  
C. Schmitz, Krefeld/DE, A. Habhuber, Krefeld/DE, B. Strehmel, Krefeld/DE

**17:00**  
Tuning the mechanical performance of polyurethane UV cured coatings: modifying the composition of reactive diluents  
I. Zvonkina, Stuttgart/DE, M. Hilt, Stuttgart/DE

**17:30**  
Improving the efficiency of photocatalysts  
H.-C. Krempels, Leverkusen/DE, C. Scheidt, B. Vielhaber-Kirsch, Leverkusen/DE

**18:00** Break

**19:00** SOCIAL EVENING (River Dream party)  
Ship River Dream
08:30 Extensional rheology as related to paint atomization
M. R. Koerner, Mt. Clemens, MI/US, E. C. Houze, J. R. Moore, Wilmington, DE/US,
G. H. McKinley, B. Keshavarz, Cambridge, MA/US

09:00 Process optimization and simulation in the coatings industry
M. Breucker, Waltrop/DE

09:30 Selective and overspray free painting technology
O. Tiedje, Stuttgart/DE, W. Nemeier, Stuttgart/DE

10:00 Air entrainment in droplets impacting the surface
Q. Ye, Stuttgart/DE, O. Tiedje, Stuttgart/DE

10:30 COFFEE BREAK

11:00 Improving efficiency and quality by high throughput technologies in development of coatings

11:30 Towards a durable, water-based coating for wood-based composites
C. Bellmann, Dresden/DE, A. Calvimontes, Dresden/DE, A. Caspari, Dresden/DE, C. Schirp,
Braunschweig/DE, A. Schirp, Braunschweig/DE

12:00 Early recognition of weathering defects: Evaluation of two newly elaborated methods for detecting coating degradation

12:30 LUNCH BREAK

14:00 KEYNOTE LECTURE
Film formation and subsequent environmental degradation of crosslinking polymers: Exploration using computer simulations
S. Croll, Fargo/US, A. Feickert, Fargo/US, D. Kroll, Fargo/US

14:30 A multi-method approach for the prediction of weather-related ageing of wood coatings
L. Passauer, Dresden/DE, M. Beyer, Dresden/DE, M. Freese, Tharandt/DE, S. Fischer,
Tharandt/DE, J. Peters, Tharandt/DE

15:00 Measuring and optimizing the efficiency of titanium dioxide in paint
J. Rommens, Mechelen/BE, S. De Backer, Mechelen/BE

15:30 COFFEE BREAK

16:00 Simulation of temperatures on surfaces exposed to solar radiation
A. Schönlein, Linzengrech/DE, S. Senff, Linzengrech/DE

16:30 Water in coatings
S. J. F. Erich, Eindhoven/NL, H. P. Huinink, Eindhoven/NL, V. Baulk, Eindhoven/NL,
L. van der Ven, Sassenheim/NL, O. C. G. Adan, Eindhoven/NL

17:00 Seeing clearly through the mist
B. Neumann, Magdeburg/DE

17:30 Effects of different nano-sized TiO₂ additives on their UV protective performance in transparent polymer coatings
E. Drotar, Budapest/HU, G. Tolnai, L. Molnar-Nagy, J. Bognar, Budapest/HU

18:00 BREAK

19:00 SOCIAL EVENING (River Dream party)
POLYMERS, PIGMENTS AND OTHER RAW MATERIALS

08:30 Hyperbranched polyesterols in coating applications

09:00 Rational design of new pigment dispersants by understanding polymer-pigment interactions

09:30 Outstanding advantages of ultra-low viscosity hydrophobic poly-isocyanate: Duranate™ TUL-100
M. Yamauchi, Kawasaki/JP, M. Meiss, Brussels/BE, K. Takeno, Kawasaki/JP

10:00 BREAK

10:30 UV-crosslinkable polymer coatings
Z. Czech, Szczecin/PL, P. Raganska, Szczecin/PL, A. Kowalczyk, Szczecin/PL

11:00 Chrome-like appearance and optical properties of polymer layers including vacuum metallized pigments, VMPs
F. J. Maale, Roth/DE, M. R. F. Kuntz, Roth/DE

11:30 Thermal resistance of silicone-based coating systems
D. Pierrè, Seneffe/BE, P. Léger, Seneffe/BE

12:00 BREAK

12:15 AWARDS AND CLOSINGceremony
MEASURING AND TESTING
08:30 The effect of coating thickness on pendulum hardness
M. Bosma, Wageningen/NL, E. R. Rensen, Wageningen/NL
09:00 Limit values for VOC emissions from decorative products around the globe

POLYMERS, PIGMENTS AND OTHER RAW MATERIALS
09:30 Novel high efficient NISAT thickeners
C. Feito Fraile, Cologne/DE
10:00 COFFEE BREAK
10:30 Socal® UP: An innovative high performance precipitated calcium carbonate to reduce TiO₂ content in emulsion paints
O. Persyn, Salin de Giraud/FR
11:00 Next generation silicone antifoams: Structure property relationships in low VOC binder systems
J. C. Corcuera, Seneffe/BE, B. Lenoble, Seneffe/BE, G. Witucki, Midland/US
11:30 Life after pyrrolidones – achieving hard coatings without increasing VOCs
C. Evans, Preston/GB, I. Martin, Preston/GB, C. Smart, Preston/GB
12:00 BREAK
12:15 AWARDS AND CLOSING CEREMONY

Awards, awards, awards ...
At the ETCC 2014 the best presentations of the lectures will be honoured. Awards will be handed over to the winners during the congress closing session on 5 September 2014.

The winners are selected by the FATIPEC European Scientific Committee and the ETCC 2014 National Scientific Committee.

The following prizes will be awarded:

FATIPEC Scientific Award for the best lecture
The prize is granted by FATIPEC for that presentation, which covers best the main criteria of the congress and is excellently presented: Scientific level, innovation and utility, applicability of the topic, way of presentation.

FATIPEC Award for a young scientist
For promoting scientific and technical knowledge among the university students, PhD students, young graduates and PhDs working for universities, scientific institutes, in industrial R&D and similar. The main criteria concern innovation and applicability of new developments referred by the (?) nominee.

ATIPIC Award in memorial of Alain Clause (FATIPEC President 1995 – 1996)
The prize is granted for the best lecture in ETCC 2014 on environmental and ecological aspects in the working area of FATIPEC.
**Wednesday, 3 September 2014 19:30**

**Get Together**
On the first evening an informal Get Together will take place at the brewhouse „Sion” in Cologne downtown. Within this nice atmosphere, the FARBEUNDLACK // PREIS 2014 will be awarded.

Brauhaus Sion
Unter Taschenmacher 5-7
50667 Köln
www.brauhauszion.de

Booking required.
(please see map on page 29)

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**Thursday, 4 September 2014 19:00 – 23:00**

**Social Evening**
The highlight of the social programme. On 4 September 2014, we will go abord the MS „RiverDream“

Luxury liner MS River dream
- Round trip on river Rhine
- Panorama of Cologne by night
- Buffet dinner
- Live music

Price per Person (Mineralwater included)
Regular Participants: EUR 80,--
Students: EUR 60,--

Booking required.
The price includes 19% German VAT.
(please see map on page 29)
PROGRAMME FOR ACCOMPANYING PERSONS

**Trip to Chocolate-Museum with the “Bimmelbahn” (choo-choo train)**

The chocolate-museum was founded in 1993 and is worldwide unique in this way. The shape of the building resembles a ship made out of glass, stone and metal. The museum gives an insight into history, production and current developments of “chocolate, pralines and cocoa” on an area of 4,000 m².

**The guided tour takes place on**

**Thursday, 4 September 2014 at 13:30**

13:45 Start at Bimmelbahn-Stop Tourist Info
14:15-15:45 Visit of Chocolate Museum
16:45 Return to Bimmelbahn-Stop Tourist Info

Price per person: EUR 23.-
(Shuttle, entrance fee, guided tour)

Booking required.
The price includes 19% German VAT.

**GUIDED CITY TOUR**

Take a trip through 2,000 years of history and visit cultural monuments.

A guided sightseeing tour through Cologne will take place on

**Wednesday, 3 September 2014 at 14:00.**

14:00 – 15:30 Guided tour in English.
Price per person: EUR 8.-

Booking required.
The price includes 19% German VAT.

More than only a point of orientation, the Cathedral is the magnificent pride of Cologne’s townsfolk. The gothic Cathedral was started to be built in the 13th century – and was completed in 1880.

**Visit Cologne Cathedral on**

**Thursday, 4 September 2014 at 10:45.**

10:45 – 11:45 Guided tour in English.
Price per person: EUR 8.-

Booking required.
The price includes 19% German VAT.

Built above a Roman town villa, including the world-famous Dionysus Mosaic, the museum houses great examples of art, culture and everyday life in Roman and early medieval Cologne. The museum is famous for the worldwide largest collection of Roman Glass.

**Romano-Germanic Museum on**

**Friday, 5 September 2014 at 10:15.**

10:15 – 11:15 Guided tour in English.
Price per person: EUR 18.-
(Entrance fee + guided tour)

Booking required.
The price includes 19% German VAT.

Discover more by visiting the websites:
- Cathedral – www.koelner-dom.de
- Museum – www.museenkoeln.de/roemisch-germanisches-museum
- City of Cologne – www.cologne.de/what-to-do

expression CMS, the first mass spectrometer designed especially for chemists!

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Friday, 5 September 2014 14:30

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If fees are paid in advance, but after 15 August 2014, we kindly ask participants to show proof of payment when claiming their tickets and congress papers at the registration desk. Onsite payment only by electronic cash or credit card (Amex, Mastercard, Visa).

CANCELLATION

Written cancellations received on or before 15 August 2014, will be refunded less a 50,- € administration fee. After that date the full amount of the invoice has to be paid. Requests for refund will not be accepted; however, registration may be transferred to another member of your organisation. In this case, please send a note to GDCh, Congress Team.

If the conference is cancelled for whatever reason, fees paid will be refunded. Further recourse is excluded.

Please register online no later than 15 August 2014 at www.etcc2014.org

REGISTRATION FEES*)

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All tickets and congress papers (incl. book of abstracts) will be handed to the participants upon check-in at the registration desk. Participants are requested to wear their congress badges at all times for identification and admittance to the conference rooms.

Upon online registration, payment by credit card, direct debit or bank transfer (free of bank commission) is possible. You will receive the invoice by regular mail.

BANK DETAILS

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The GDCh offers partial scholarships for the participation in scientific meetings to students, graduate students, candidates for a doctor’s, diploma’s, bachelor’s or master’s degree presenting a scientific contribution (lecture or poster). Please find the application form (pdf-download) on www.gdch.de/stipendien

ROOM RESERVATION

You can choose from a plenty of hotels within the city, or from a pre-selection of hotels near by the conference location. KölnTourismus will gladly assist in booking accommodation in all categories.

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A list of hotels (via HRS) is available on the conference site www.etcc2014.org, under topic accomodation and travel. Online reservations are requested until 8 July 2014.

Customers will be held accountable for non-occupancy of reserved rooms.

CONFERENCE OFFICE

The conference office will be located in the base floor of the Gürzenich.

Opening hours:
Tuesday, 2 September 2014: 17:00 - 19:00
Wednesday, 3 September 2014: 08:00 - 16:30
Thursday, 4 September 2004: 08:00 - 17:00
Friday, 5 September 2014: 08:00 - 13:00

Phone: +49 175 335 4803

INFORMATION ABOUT THE SCIENTIFIC PROGRAMME

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Forschungsgesellschaft für Pigmente und Lacke e.V.
Phone: +49 711 970 3820
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INFORMATION ABOUT ABSTRACT SUBMISSION, REGISTRATION AND ORGANISATION

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Gesellschaft Deutscher Chemiker e.V.
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E-Mail: etcc2014@gdch.de
Executive director: Professor Dr. Wolfram Koch
Registered charity no: VR 4453 · Registergericht Frankfurt am Main

FURTHER INFORMATION AND SPONSORING

To obtain further information, please check on a regular basis our website under www.etcc2014.org

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Students are asked to register via “Summer School” at the ETCC homepage www.etcc2014.org.

Please note: The ETCC – beginning at 3 September 2014, 9:00 at Guerzenich in Cologne – requires an additional, separate registration.

The ETCC is also generously supported by:

Students, who take part in the Summer School, are asked kindly to help with the organization of the Congress. Information will be available on www.etcc2014.org.
Entrance, Registration and Kleiner Saal are located at the ground floor.

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