



Coatings Science International 2010

Conference Program

**Hotels van Oranje Noordwijk
28 June – 2 July 2010
The Netherlands**



Coatings Science International

This Conference is sponsored by:



ELSEVIER



BOSCH

Invented for life



TU/e



Mission Statement

The Coatings Science International Conference strives to be the leading European Conference on the Science and Technology of Coatings. By creating strong international bonds and by inviting top-notch speakers from around the world, we want to create a high-quality platform for free exchange of scientific knowledge between both academic and industrial scientists that will strengthen the innovation power of the global coatings community.

Just another Coatings Conference?

No, where other Conferences primarily try to reach a broad public and focus on commercial applications of new technologies, this Conference intends to focus on the scientific backgrounds of the newest technological developments relevant to Coatings. In the convenient setting of 5-star hotel on the North Sea beach and with a maximum of 120 participants, Coatings Science International 2010 will breathe the atmosphere of a Gordon-type conference, reminiscent of the famous Athens Conferences (1974-2003). High-quality speakers, ample time for scientific discussions, and every opportunity to establish rewarding contacts are Conference values we want to uphold.

Organizing Committee COSI 2010

Prof. Dr. Rolf van Benthem	Chair, TU/e, The Netherlands
Dr. Keimpe van den Berg	AkzoNobel, USA
Prof. Dr. Gordon Bierwagen	North Dakota State University, USA
Prof. Dr. Wolfgang Bremser	Universität Paderborn, Germany
dr. Horst Hintze-Bruening	BASF Coating AG, Germany
Dr. Catherine Dekkerckheer	Institut Meurice-HELdB, Belgium
Prof. Dr. Mats Johansson	Royal Institute of Technology, Sweden
Dr. Joseph L. Keddie	University of Surrey, UK
Drs. Ad Overbeek	DSM NeoResins, The Netherlands
Dr. Marcel Piens	Coating Research Institute (CORI), Belgium
Anna Saar McGonigle	Elsevier, USA
Prof. Dr. Masamitsu Shirai	Osaka Prefecture University, Japan
Dr. Bettina Vogt	Dupont Performance Coatings, Germany
Prof. Dr. Bert de With	TU/e, The Netherlands
Imanda Scholten-Kamstra	Secretary, TU/e, The Netherlands

Monday 28 June 2010

Arrival

20:00- 22:00 hrs Registration / Reception



Tuesday 29 June 2010

Weathering and Degradation

Chair: Masamitsu Shirai

08:45 – 09:00	Opening
09:00 - 09:45	Tinh Nguyen, NIST, USA <i>Degradation and nanoparticles release of nanocomposite coatings exposed to UV radiation</i>
09:45 - 10:15	Xinyi Liu, Loughborough University, UK <i>Modelling the mechanical response of Urushi lacquer under changing environmental conditions</i>
10:15 - 10:45	Sudeshna Saha, University of Quebec a Chicoutimi, Canada <i>Effect of Nano Particles on Penetration Characteristics of Acrylic Polyurethane Coating and Coating Thickness Change with Weathering</i>
10:45 – 11:15	Break

Hybrid Materials and Nanocomposites

Chair: Keimpe van den Berg

11:15 - 11:45	Zbigniew Boncza-Tomaszweski, ICRI, Poland <i>Novel nanocomposite binders for powder coatings</i>
11:45 - 12:15	Jorge González, Instituto de Technología Cerámica, Universitat Jaume I. Castellón, Spain <i>Correlation between the wear resistance, and the scratch resistance, for nanocomposite coatings</i>
12:15 - 12:45	Shuxue Zhou, Fudan University, P.R. China <i>Preparation of transparent UV-curable nanocomposite coatings containing Zirconia nanocrystals</i>
12:45 – 14:00	Buffet Lunch
14:00 – 15:30	Poster Session I
15:30 – 16:00	Break

Material Characterization and Modelling

Chair: Bettina Vogt

16:00 - 16:30	Andreas Kandelbauer, Reutlingen University, Germany <i>Optimization of powder coating using isoconversional kinetic analysis of thermochemical data</i>
16:30 - 17:00	Søren Kiil, Technical University of Denmark, Denmark <i>Mathematical modeling of simultaneous solvent evaporation and chemical curing in thermoset coatings: A parameter study</i>
17:00 - 17:30	Stephane Marais, University of Rouen, France <i>Diffusion in polyamide 12/montmorillonite nanocomposite films</i>
17:30 – 18:00	Funda Tihminlioglu, Izmir Institute of Technology, Turkey <i>Mechanical and barrier properties of bilayer Corn-Zein nanocomposite coated polypropylene films</i>
18:30 - 20:00	Poster Session II + Drinks
20:15 – 22:00	Buffet Dinner

Wednesday 30 June 2010

Pigments and Colorants

Chair: Ad Overbeek

8:45 - 9:30	Limin Wu, Fudan University, P.R. China <i>Self-assembly of nanocomposite polymer latex and structural color coatings</i>
9:30 - 10:00	Jochen Manara, Bavarian Center for Applied Energy Research, Germany <i>Polymer-based pigment coatings on flexible substrates with spectrally selective characteristics to improve the thermal properties</i>
10:00 – 10:30	Paul Steeman, DSM Research, The Netherlands <i>The effect of surface topography on the optical properties of powder coatings</i>
10:30 – 11:00	Break

Corrosion Protection

Chair: Horst Hintze-Bruening

11:00 - 11:30	Sergej Toews, University of Paderborn, Germany <i>Smart functionalized polymer dispersion for effective mapping of heterogeneous metal surfaces: new concepts for corrosion protection</i>
11:30 - 12:00	Arjan Mol, Delft University of Technology, The Netherlands <i>The characterization and performance of Ce(dbp)3-inhibited epoxy coatings</i>
12:00 - 12:30	Jesus Manuel Vega, Degradation and Durability National Centre for Metallurgical Research (CENIM/CSIC), Spain <i>Corrosion inhibition of aluminum by alkyd paints formulated with anion-exchange hydrotalcite</i>
12:30 - 13:00	Stuart Croll, North Dakota State University, USA <i>Multiphysics model for the deterioration of corrosion protection provided by barrier coatings</i>
13:00 – 14:00	Buffet Lunch
14:15 – 14:15	Arrival coaches at Hotels van Oranje
14:30 – 14:40	Departure to Amsterdam for the social program
15:20 – 15:30	Arrival at museum
15:30 – 18:00	Visit museum Hermitage (museum is open until 20:00 hrs)
18:00 – 21:00	Free time in Amsterdam
21:00 – 21:10	Return trip from Amsterdam to Noordwijk
22:00 – 22:10	Arrival Hotels van Oranje

Thursday 1 July 2010

Functional Coatings I

Chair: Mats Johansson

8:45 - 9:30	Helmut Möhwald, Max Planck Institute of Colloids and Interfaces, Germany <i>Intelligent polymeric and hybrid coatings with multifunctionality</i>
9:30 - 10:00	Aharon Gedanken, Bar-Ilan University, Israel <i>Coating a large variety of surfaces by sonochemical methods: Anti-bacterial, anti-viral, anti-biofilms and anti-fungal coatings on textiles and glasses</i>
10:00 - 10:30	Mariëlle Wouters, TNO Science and Industry, Eindhoven, The Netherlands <i>Surface modification and coatings for medical devices</i>
10:30 – 11:00	Break

Functional Coatings II

Chair: Catherine Dekkerckheer

11:00 - 11:45	Christine Jérôme, CERM, University of Liège, Belgium <i>Biomimetic coatings with robust antibacterial properties</i>
11:45 - 12:15	Volkmar Stenzel, IFAM, Germany <i>Drag-reducing paints for the reduction of fuel consumption in aviation and shipping</i>
12:15 - 12:45	Nagahiro Saito, EcoTopia Science Institute, Nagoya University, Japan <i>Surface characteristics of super hydrophilic polyelectrolyte bush</i>
12:45 – 14:30	Buffet Lunch

Waterborne Systems

Chair: Joseph Keddie

14:30 - 15:15	Masahiro Ito, DIC corporation, Japan <i>Performance of innovative hybrid waterborne resins for special coatings applications</i>
15:15 - 15:45	Dirk Mestach, Nuplex Resins BV, The Netherlands <i>Synthesis and coating applications of alkyd-acrylic hybrid polymer dispersions</i>
15:45 - 16:15	Martin W. Murray, AkzoNobel Colloids and Complex Fluids, UK <i>Cracking of colloidal coatings upon drying</i>
16:15 – 16:45	Break
16:45 - 17:15	Tanzeela N. Raja, University of Amsterdam, The Netherlands <i>Real time imaging of film formation of acrylic latex emulsions</i>
17:15 - 17:45	Ingo Alig, Deutsches Kunststoff-Institut, Germany <i>Deformation mechanisms during latex film formation: Combination of unilateral NMR and NIR</i>
19:00 – 22:00	Conference Barbeque

Friday 2 July 2010

Textured Coatings

Chair: Wolfgang Bremser

8:45 - 9:30 Joseph L. Keddie, University of Surrey, UK
Patterned polymer coatings via evaporative lithography

9:30 - 10:00 Horst Hintze-Bruening, BASF Coatings AG, Germany
Layered particle based polymer composites for coatings: Part III – Textured coatings obtained via lyotropic liquid crystals

10:00 - 10:30 Marcella Gagliardo, AkzoNobel Car Refinishes, The Netherlands
Embossing textures into coatings by selective UV-radiation

10:30 – 11:00 Break

Applied Coatings

Chair: Wolfgang Bremser

11:00 - 11:30 Gustavo L. Guerriero, Delft University of Technology, The Netherlands
Thermotropic Liquid Crystalline Polymers as Protective Coatings for Aerospace

11:30 - 12:00 Hossain Yari, Amirkabir University of Technology, Iran
A study of biological resistance of an automotive acrylic-melamine clearcoat exposed to bird droppings and tree gums

12:00 - 12:30 Guang-Ling Song, Chemical Sciences and Materials Systems Laboratory, USA
A dipping e-coating for Mg alloys

12:30 – 13:00 Closing, Awards Presentation

13:00 – 14:00 Buffet lunch



Coatings Science International

Local Organization:

Eindhoven University of Technology
Department of Chemical Engineering and Chemistry
Laboratory of Materials and Interface Chemistry
The Netherlands

Contact:

congressoffice@tue.nl

www.coatings-science.com

