



**Coatings  
Science  
International  
2006**

**Conference Program**

Hotels van Oranje Noordwijk  
26 June – 30 June 2006  
The Netherlands



Coatings Science International

This Conference is sponsored by:

**Ciba**



ELSEVIER



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## Mission Statement

The Coatings Science International Conference strives to become 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 2006 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 2006

Prof. Dr. Rolf van Benthem	Chair, TU/e, The Netherlands
Dr. Godwin Berner	CIBA, Switzerland
Prof. Dr. Gordon Bierwagen	North Dakota State University, USA
Prof. Dr. Wolfgang Bremser	Universität Paderborn, Germany
Dr. Piet van Hensbergen	Akzo Nobel N.V., The Netherlands
Tyrone Prescod	Elsevier B.V., USA
Prof. Dr. Mats Johansson	Royal Institute of Technology, Sweden
Dr. Joseph L. Keddie	University of Surrey, UK
Dr. Werner Lenhard	Dupont Performance Coatings GmbH & Co KG, Germany
Drs. Ad Overbeek	DSM NeoResins, The Netherlands
Dr. Marcel Piens	Coating Research Institute (CORI), Belgium
Dr. Wolfgang Paulus	BASF Coating AG, Germany
Prof. Dr. Masamitsu Shirai	Osaka Prefecture University, Japan
Dr. André Toussaint	Advanced Coatings Technology Consultancy Office, Belgium
Dr. Douglas A. Wicks	The University of Southern Mississippi, USA
Prof. Dr. Bert de With	TU/e, The Netherlands
Imanda Scholten-Kamstra	Secretary, TU/e, The Netherlands

**Monday 26 June 2006**

### Arrival

20:00- 22:00 hrs    Registration / Reception



## Nanotechnology

Chair: A. Overbeek

- 08:45 – 09:00      Opening
- 09:00 – 09:45      T. Nabuurs (DSM NeoResins, The Netherlands)  
*“Nanomorphology control in aqueous coatings”*
- 09:45 – 10:15      A. van Herk (Eindhoven University of Technology, The Netherlands)  
*“From emulsion polymerization to nanotechnology”*
- 10:15 – 10:45      J. Devaux (Université Catholique de Louvain, Belgium)  
*“Polymer-based nanocomposites: overview, applications and perspectives”*
- 10:45 – 11:15      Break
- 11:15 – 11:45      M.M. Jalili (Amirkabir University of Technology, Iran)  
*“Study of the effect of nanoclay content on some mechanical and optical properties of the resultant coatings”*
- 11:45 – 12:15      L. Nobel (Delft University of Technology, The Netherlands)  
*“Waterborne nanocomposite coatings”*
- 12:15 – 12:45      H. Wiese (BASF AG, Germany)  
*“Nanocomposite dispersions - An innovation in waterbased coatings”*
- 12:45 – 14:30      Buffet Lunch

## Special Properties

Chair: D. Wicks

- 14:30 – 15:15      W. Ming (Eindhoven University of Technology, The Netherlands)  
*“Surface wettability control inspired by Nature”*
- 15:15 – 15:45      F. Ciardelli (University of Pisa and PolyLab-INFM, Italy)  
*“Conferring dichroic properties and optical responsiveness to polyolefins through organic chromophores and metal nanoparticles”*
- 15:45 – 16:15      L. van der Ven (Akzo Nobel Coatings Research, The Netherlands)  
*“Interactions between basecoats and clearcoats in Car Refinish systems”*
- 16:15 – 16:45      Break

## General

Chair: A. Toussaint

- 16:45 – 17:15      P. Uhlmann (Leibniz Institute of Polymer Research Dresden, Germany)  
*“Research agenda surface technology: Future demand of research in the field of coatings materials”*
- 17:15 – 18:00      Poster presentations
- 18:00 – 22:00      Poster session + drinks
- 20:00 – 22:00      Buffet Diner

## Wednesday 28 June 2006

### Electrochemistry & Corrosion

Chair: M. Johansson

- 08:45 – 09:30 G. Bierwagen (North Dakota State University, USA)  
*“Lifetime prediction for corrosion protective coatings from electrochemical measurements - A new perspective”*
- 09:30 – 10:00 C. Jérôme (CERM, University of Liège, Belgium)  
*“New developments in electrografting of thin polymer films”*
- 10:00 – 10:30 S. Lamaka (University of Aveiro, Aveiro, Portugal)  
*“TiO<sub>x</sub> nanostructured sublayer as reservoir of corrosion inhibitors for pre-treatments with self-healing ability”*
- 10:30 – 11:00 Break
- 11:00 – 11:30 P. Puomi (University of Cincinnati, USA)  
*“Novel, one-step, chromate-free coatings containing anticorrosion pigments for metals”*
- 11:30 – 12:00 F. de Wit (Delft University of Technology, (NIMR), The Netherlands )  
*“Bonding of organic molecules on aluminium and magnesium alloy”*
- 12:00 – 12:30 S. Garcia (Universitat Jaume I, Spain)  
*“Anticorrosive evaluation of organic powder coatings by means of electrochemical techniques (EIS and AC/DC/AC)”*
- 12:30 – 13:00 D. Battocchi (North Dakota State University, USA)  
*“The use of multiple electrochemical techniques to characterize Mg-rich primers for Al alloys”*
- 13:00 – 14:30 Buffet Lunch
- 13:00 – 14:00 Buffet Lunch
- 14:15 Arrival coaches at Hotels van Oranje
- 14:30 Departure to Den Haag for the social program, visit Mauritshuis Museum
- 21:00 Return trip from Den Haag to Noordwijk

**Photochemistry**

Chair: G. Berner

- 8:45 – 9:30 S. Jönsson (Fusion UV-Curing Systems, USA)  
*“Free radical induced photopolymerization of thio-ether vinyl esters”*  
presented by M. Johansson, KTH, Sweden
- 9:30 – 10:00 K. Dietliker (Ciba Specialty Chemicals Inc., Switzerland)  
*“Advancements in Photoinitiators – opening up new Applications for Radiation Curing”*
- 10:00 – 10:30 W. Schrof (BASF Aktiengesellschaft, Germany)  
*“Combinatorial Materials Research of UV Coating Formulations”*
- 10:30 – 11:00 Break
- 11:00 – 11:45 M. Shirai (Osaka Prefecture University, Japan)  
*“Reworkable UV curing materials”*
- 11:45 – 12:15 G. Koper (Delft University of Technology, The Netherlands)  
*“UV-protective coatings: what to learn from nature”*
- 12:15 – 12:45 D. Maetens (Cytec Surface Specialties, Belgium)  
*“Weathering degradation mechanism in polyester powder coatings”*
- 12:45 – 14:30 Buffet Lunch

**Characterization & Film Formation**

Chair: W. Bremser

- 14:30 – 15:15 A. Fedorov (University of Groningen, The Netherlands)  
*“Degradation and recovery of adhesion properties of deformed metal-polymer interfaces studied by laser induced delamination”*
- 15:15 – 15:45 M. Fermeglia ( University of Trieste, Italy)  
*“Multiscale modeling for polymer systems of industrial interest”*
- 15:45 – 16:15 B. Erich ( Eindhoven University of Technology, The Netherlands)  
*“Drying of alkyd coatings on porous substrates measured with high resolution MRI”*
- 16:15 – 16:45 Break
- 16:45 – 17:30 A. Routh (University of Sheffield, UK)  
*“Surfactant distributions in latex films”*
- 17:30 – 18:00 I. Alig (Deutsches Kunststoff-Institut, Germany)  
*“Monitoring of film formation, cure and ageing of coatings by an ultrasonic reflection method”*
- 19:00 – 22:00 Conference Dinner

## Friday 30 June 2006

### Polymer Chemistry

Chair: M. Shirai

- 08:45 – 09:30 D. Wicks (The University of Southern Mississippi, USA)  
*“Impact of Waterborne Dispersants on Biocide Efficacy”*
- 09:30 – 10:00 J. Huybrechts (DuPont Performance Coatings, Belgium)  
*“2.1 VOC solvent borne 2K clear coats based on star oligoethers”*
- 10:00 – 10:30 H. Sasaki (Taogosei Co. Ltd, Nagoya, Japan)  
*“High performance cationically curable formulations”*
- 10:30 – 11:00 Break
- 11:00 – 11:30 Y. Kushi (Nippon Paint Co. Ltd, Osaka, Japan)  
*“Molecular design of novel grafting polymer for aqueous pigment dispersants”*
- 11:30 – 12:00 W. Posthumus (Stahl International, The Netherlands)  
*“Reactions of carbodiimides with free and bonded carboxylic acids”*
- 12:00 – 12:30 M. Shalati (Nuplex Resins LLC, Louisville, USA)  
*“Controlled molecular structure polymers”*
- 12:30 – 13:00 C. Schellenberg (Ciba Specialty Chemicals Inc., Switzerland)  
*“Polymer colloids by miniemulsion polymerization - new additives for waterborne coatings”*
- 13:00 – 13:15 Closing, Awards Presentation
- 13:15 – 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

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