



## **Coatings Science International Conference Program**



**Hotels van Oranje Noordwijk**

**28 June – 1 July 2005**

**The Netherlands**

# *Coatings Science International Conference Program*

**This Conference is sponsored by:**



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## Coatings Science International Conference Program

### 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 2005 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 2005

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	Universitat Paderborn, Germany
Dr. Piet van Hensbergen	Akzo Nobel N.V., The Netherlands
Assoc.Prof.Dr. Mats Johansson	Royal Institute of Technology, Sweden
Dr. Werner Lenhard	Dupont Performance Coatings Gmbh & Ko KG,Germany
Drs. Ad Overbeek	NeoResins, The Netherlands
Chris Pacey-Day	Surface Coatings International, United Kingdom
Dr. Marcel Piens	Coating Research Institute (CORI), Belgium
Dr George R. Pilcher	Akzo Nobel Coatings Inc. USA
Dr. Wolfgang Paulus	BASF Coating AG, Germany
Dr. André Toussaint	Advanced Coatings Technology Consultancy Office
Prof.Dr. Bert de With	TU/e, The Netherlands
Anouschka Zwart	Elsevier B.V., The Netherlands
Imanda Scholten-Kamstra	Secretary, TU/e, The Netherlands

**Monday 27 June 2005**

#### Arrival

20:00- 22:00 hrs

Registration / Reception



## Coatings Science International Conference Program

**Tuesday 28 June 2005**

### Weathering

8:45 – 9:00 hrs	<i>Opening</i>	<u>Chair: G. Pilcher</u>
9:00 – 9:45 hrs	M. Nichols (Ford Motor Company, USA) <i>"The weathering behavior of UV curable clear coats: Experiments and implications"</i>	
9:45 – 10:15 hrs	S. Croll (North Dakota State University, USA) <i>"Statistical approaches for predicting weathering degradation and service life"</i>	
10:15 – 10:45 hrs	J.W. Martin (National Institute of Standards and Technology) <i>"Linking field and laboratory service life exposure results for polymeric materials via a reliability-based methodology: A successful case study"</i>	
10:45 – 11:15 hrs	<i>Break</i>	

### Film Formation

11:15 – 12:00 hrs	P.A.M. Steeman (DSM Research BV, The Netherlands) <i>"Recent developments in monitoring film-formation and cure of coatings"</i>	<u>Chair: M. Piens</u>
12:00 – 12:30 hrs	M. Bosma (Akzo Nobel Research and Technology Chemicals, The Netherlands) <i>"The role of sag control agents in optimizing the sag/leveling balance"</i>	
12:30 – 14:00 hrs	<i>Buffet Lunch</i>	
14:00 – 14:45 hrs	J.L. Keddie (University of Surrey, UK) <i>"Insights from modern techniques into the film formation of waterborne coatings"</i>	
14:45 – 15:15 hrs	B. Erich (Eindhoven University of Technology, The Netherlands) <i>"MRI depth profiling of drying alkyd coatings with different catalyst"</i>	
15:15 – 15:45 hrs	<i>Break</i>	

### Mechanical Properties

15:45 – 16:30 hrs	S. Hofacker (Bayer Materials Science, Germany) <i>"Hybrid coating systems"</i>	<u>Chair: M. Johansson</u>
16:30 – 17:00 hrs	D. Stahlberg (Scania CV AB, Sweden) <i>"Properties of coatings in load carrying constructions"</i>	
17:00 – 17:30 hrs	A. Poppe (BASF Coatings AG, Germany) <i>"Scratch resistant automotive coatings - Correlations between field tests and mechanical properties"</i>	
18:30 – 22:00 hrs	<i>Buffet Diner with <b>Poster presentations</b></i>	



## Coatings Science International Conference Program

**Wednesday 29 June 2005**

### Waterborne

8:45 – 9:30 hrs	P.J.A. Geurink (Akzo Nobel, The Netherlands) “A complete new design for waterborne 2-pack PUR coatings with robust application properties”	<u>Chair: A. Overbeek</u>
9:30 – 10:00 hrs	M. Tielemans (Surface Specialities, Belgium) “Colloidal stability of surfactant-free radiation curable polyurethane dispersions”	
10:00 – 10:30 hrs	K. Rissa (Tampere University of Technology, Finland) “Effect of kaolin content on structure and functional properties of water-based coatings”	
10:30 – 11:00 hrs	<i>Break</i>	

### Chemistry

11:00 – 11:30 hrs	R. Hesselmans (Stahl International, The Netherlands) “Polycarbodiimide crosslinkers”	<u>Chair: G. Berner</u>
11:30 – 12:00 hrs	F. Micciche (Agrotechnology and Food Innovations BV, The Netherlands) “Towards biobased alternatives for VOC and cobalt in alkyd paints”	
12:00 – 12:30 hrs	R.P. Klaasen (Akzo Nobel Decorative Coatings, The Netherlands) “Fast drying cobalt-free high solids alkyd paints”	
12:30 – 13:00 hrs	B. de Ruiter (TNO Industrial Technology, The Netherlands) “Two-step curing processes for coating application”	
13:00 – 14:00 hrs	<i>Buffet Lunch</i>	
14:00 – 18:30 hrs	<i>Social Program visit Amsterdam</i>	



## Coatings Science International Conference Program

**Thursday 30 June 2005**

### Corrosion and Protection

Chair: G. Bierwagen

8:45 – 9:30 hrs	W.J. van Ooij (University of Cincinnati, USA) “Novel environmentally friendly coatings for corrosion protection of metals based on silane chemistry”
9:30 – 10:00 hrs	A. Hofland (DSM Coating Resins, The Netherlands) “Increasing the durability of wood by reactive vegetable oils”
10:00 – 10:30 hrs	M. Zielecka (Industrial Chemistry Research Institute, Poland) “Silicone-containing polymer matrix as protective coating - properties and applications”
10:30 – 11:00 hrs	<i>Break</i>

### Functional Coatings

Chair: W. Lenhard

11:00 – 11:45 hrs	P. Uhlman (Institute of Polymer Research Dresden, Germany) “Surface functionalization by smart coatings: stimuli responsive binary polymer brushes”
11:45 – 12:30 hrs	D.C. Webster (North Dakota State University, USA) “Use of high throughput methods in the design of coatings having minimally adhesive surfaces”
12:30 – 14:00 hrs	<i>Buffet Lunch</i>
14:00 – 14:45 hrs	<b>Key-note Lecture</b> G. Pilcher (Akzo Nobel Coatings Inc. USA) “Challenge 2005 and Beyond: Recognition, Transformation and Profitable Use of Innovative Thinking” “Electrografting of thin polymer films; design and applications”
14:45 – 15:15 hrs	M. Wales (Reactive Surfaces Ltd., USA) “Biocatalytic paints and coatings”
15:15 – 15:45 hrs	<i>Break</i>

### Polymerization

Chair: W. Bremser

15:45 – 16:30 hrs	S. Rimmer (University of Sheffield, UK) “New functional polymers with potential in coating technologies”
16:30 – 17:00 hrs	B. Göbel (BYK Chemie, Germany) “The molecular weight distribution in living polymerization - The narrower the better?”
17:00 – 17:30 hrs	V. Carlier (Coatings Research Institute, Belgium) “Plasma polymerization techniques: promising possibilities for the paint industry – A literature overview”
19:00 – 22:00 hrs	<i>Conference Diner</i>



## Coatings Science International Conference Program

**Friday 1 July 2005**

### UV

8:45 – 9:30 hrs	C. Decker (Université de Haute Alsace, France) <i>"High performance UV-cured protective coatings"</i>	<u>Chair: W. Paulus</u>
9:30 – 10:00 hrs	B.K. Kim (Pusan National University, South-Korea) <i>"Design and properties of UV cured polyurthane dispersions"</i>	
10:00 – 10:30 hrs	J.P. Stropp (Dupont Performance Coatings GmbH & Co KG, Germany) <i>"UV curing systems for automotive refinish applications"</i>	
10:30 – 11:00 hrs	M. Tian (NanoTechnology Instruments Europe BV, The Netherlands) <i>"Coatings property analysis with AFM techniques"</i>	

11:00 – 12:00 hrs      *Break*

### Various Topics

12:00 – 12:30 hrs	R. Nussbaum (IKEA of Sweden, Sweden) <i>"Present and future requirements on furniture coatings: An end users perspective"</i>	<u>Chair: A. Toussaint</u>
12:30 – 13:15 hrs	C. Gurtler (Bayer Materials Science AG, Germany) <i>"1K-PU systems revisited: New insights, new blocking agents"</i>	
13:00 – 13:15 hrs	<i>Closing + Awards Presentation</i>	
13:15 – 14:00 hrs	<i>Buffet Lunch</i>	



## Coatings Science International Conference Program



### Local Organization:

Eindhoven University of Technology

Department of Chemical Engineering and Chemistry

Laboratory of Materials and Interface Chemistry

The Netherlands

### Contact:

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