The Next Level

American Coatings Conference
The Technology Forum for the Coatings Industry.
Charlotte, NC, June 2–4, 2008

Conference Program

during the American Coatings Show
June 3–5, 2008
On behalf of the NPCA and Vincentz Network we would like to welcome you to the first American Coatings Conference (ACC)! Following our vision to take the industry to the Next Level with the ACC and the adjacent American Coatings Show, we have received an overwhelmingly positive response to our call for papers and are confident that the ACC will provide a collaborative environment that promotes sound science, innovation and business value for the American coatings industry.

From over 170 submissions, we have selected a program of 72 high-level technical papers for oral presentations, based on the potential of the contributions to add value to the industry. Twelve focused topical sessions will be held over the three conference days.

Additionally, over 40 other equally interesting presentations will be offered in a highly interactive poster session environment.

The first American Coatings Conference is poised to provide you with a deep and comprehensive overview on what industry and academia have in store for the technical advancement of coatings formulations. The conference will present scientific and technical insight on how to address today’s challenges of increasing customer and legislative demands for both higher coatings performance and greater environmental benefit.

The sessions address new developments for specific coating applications: architectural, protective, and industrial coatings; important raw material classes, such as polyurethanes and pigments; as well as innovative testing and laboratory methods. Furthermore, five focus sessions are devoted to special topics, which are intensely discussed in coatings research today – nanoparticles/nanostructures and their use in new high-performance coatings, specific solutions that address sustainable coatings developments, coatings with novel functionality, the special case of new easy-to-clean coatings, as well as highly innovative novel material classes.

In addition to the main conference program, five exclusive pre-conference tutorials have been set up, rounding off the event and offering a unique opportunity for an intense “crash-course” update in some of the most important coatings technologies today. The conference will also provide unique networking opportunities through social gatherings to promote industry collaboration and camaraderie.

Do not miss the biggest coatings event of the year and the start of a new level of energy and excitement for the American coatings industry for many years to come.

We look forward to meeting you in Charlotte!
AC Conference at a Glance

Monday, June 2, 2008

8:30 a.m. – 10:00 a.m. Pre-Conference Tutorial 1 – 3
10:30 a.m. – 12:00 p.m. Pre-Conference Tutorial 4, 5
11:30 a.m. – 12:15 p.m. Networking: Welcome Lunch
12:15 p.m. – 1:30 p.m. Plenary Session
Welcome Address and Conference Introduction, Keynote Presentations, American Coatings Award
1:30 p.m. – 2:00 p.m. Networking: Refreshments & Coffee Break
2:00 p.m. – 5:30 p.m. Session 1: Nanoparticles and Nanostructures
Session 2: Novel Materials
Session 3: Sustainable Solutions
5:30 p.m. – 5:50 p.m. Poster Previews
5:50 p.m. – 7:00 p.m. Full Poster Session/
Networking: After Work Party

Tuesday, June 3, 2008

9:00 a.m. – 12:30 p.m. Session 4: Polyurethanes – Part 1
Session 5: Architectural Coatings
Session 6: Functional Coatings
12:30 p.m. – 2:00 p.m. Networking: Lunch Break & Refreshments
2:00 p.m. – 5:30 p.m. Session 7: Protective Coatings
Session 8: Pigments
Session 9: Dirt Pickup and Easy-to-Clean Coatings
5:30 p.m. – 5:50 p.m. Poster Previews
5:50 p.m. – 7:00 p.m. Full Poster Session

Wednesday, June 4, 2008

9:00 a.m. – 12:30 p.m. Session 10: Polyurethanes – Part 2
Session 11: Testing and Laboratory Methods
Session 12: Industrial Coatings
12:30 p.m. End of Conference

Attendees’ Pre-Conference Survey

Drawing on the combined expertise and market knowledge of both speakers and attendees at the American Coatings Conference, an anonymous survey will be held some weeks before the event, shedding light on the views and expectations of this leading assembly regarding the current research situation and market climate the American coatings industry is experiencing. The results and an analysis of this survey will be presented during the opening Plenary Session of the conference.

Pre-Conference Tutorials

On the morning of June 2, before the start of the main conference, five concise and focused 90-minute tutorials offer you the opportunity to be updated on the key issues that govern some important and much-discussed coatings technology areas. Presented by renowned industrial or academic experts in the field, the tutorials will give you an intense crash-course of the technologies in question.

Please note: The Pre-Conference Tutorials and main conference are separate events. Participation at the tutorials is limited to a maximum of 25 attendees to guarantee an effective and interactive exchange of information. Pre-registration is absolutely necessary, and registrations will be handled on a first come, first served basis.

The latest program, including abstracts of all papers, all speakers and co-authors, any new speakers, or changes to the schedule may be viewed on our website: www.american-coatings-show.com/conference
Monday Morning | June 2, 2008, 8:30 a.m. – 12:00 p.m.

Pre-Conference Tutorials

**Tutorial 1**
8:30 – 10:00 a.m.
Radiation Curing

Michael L. Dvorchak, RadTech North America
This tutorial has been designed in collaboration with RadTech North America.

The tutorial will provide you with a concise overview on the fundamentals of radiation curing coatings, their benefits and limitations. The basic chemistry involved, typical formulation characteristics, as well as common applications of UV curing coatings will be explained.

**Mike Dvorchak** is leading Bayer MaterialScience’s Technology Platform UV, New Applications, CAS Distribution Technology and CAS Government Programs and has been an FSCT and also CalPoly Coatings Short Course instructor, teaching various courses including UV Cure and Polyurethane chemistries. Mike has been on the Board of Directors of RadTech North America since January 2005.

**Tutorial 2**
8:30 – 10:00 a.m.
Corrosion Protection

William Shoup, SSPC
This tutorial has been designed in collaboration with the Society for Protective Coatings SSPC.

What principles govern the corrosion of metals, and how can protective coatings help in preventing corrosion? This tutorial will address the fundamentals of the electrochemical processes involved, and typical ingredients and formulation characteristics of anticorrosive coatings will be outlined and discussed.

**Bill Shoup** is Executive Director of the Society for Protective Coatings. He holds an MBA from Syracuse University and is also a graduate of the U.S. Army War College. He joined SSPC in December 1994 as Associate Director and was named Director of Operations in 1997. Since November 1999, he has been Director of Society Operations / Executive Director and is responsible for all facets of the Association.

**Tutorial 3**
8:30 – 10:00 a.m.
Antimicrobial Surfaces

Dr. Melinda Wales, Reactive Surfaces Ltd.
Representing a relatively new variety of novel functional coatings, specific solutions have been put forward in recent years to achieve hygienic, antimicrobially active surfaces for various uses. The tutorial will feature a concise review of the different technologies proposed and give an outline of current state-of-the-art applications – also in view of more severely restricting legal frameworks concerning the use of biocidal substances, such as the European Biocidal Products Directive.

**Melinda Wales** is a Scientist and a Lecturer in Genetics and Molecular Biology at Texas A&M University, working on biologically-based solutions to environmental problems. She is also Chief Scientific Officer for Reactive Surfaces, Ltd., a company specializing in bio-engineered additives for coatings based in Austin, Texas.

**Tutorial 4**
10:30 a.m. – 12:00 p.m.
Polyurethanes

Dr. Edwin Hortelano, Bayer MaterialScience LLC
Their chemistry is very versatile, as is their application and application potential: Polyurethane coatings and their typical components – polyisocyanates and polyols – will be reviewed and compared in this tutorial. This includes a discussion of the various PUR coatings technologies in use and their advantages and limitations, such as 1K and 2K solventborne as well as waterborne chemistries, radiation curing PUR coatings, PUR powder coatings formulations and their typical end use applications.

**Ed Hortelano** has held leadership positions at Bayer in Research, Applications Development, and Manufacturing in both the United States and Germany, including North American Head of Research for the Coatings, Adhesives, and Sealants division. He is now responsible for the UV-Cured and Waterborne Coating Technology Platforms.

**Tutorial 5**
10:30 a.m. – 12:00 p.m.
Easy-to-clean Coatings

Dr. W. Marshall Ming, University of New Hampshire
Discussed and put forward in more and more applications – including exterior and interior architectural coatings, industrial coatings, and even automotive coatings – effective and lasting easy-cleanability of surfaces is quite high on the wish-list of coatings functionality. This tutorial will explain the different concepts that are put to work in such coatings and review the state-of-the-art of such systems in practice.

**Marshall Ming** studied Materials Chemistry as well as Polymer Chemistry and Physics. After a position as Assistant Professor in Polymer Chemistry & Coatings Technology at the University of Eindhoven, Netherlands, he is now Research Associate Professor in Materials Science at the University of New Hampshire in the Nanostructured Polymer Research Center.

www.american-coatings-show.com/conference
Two dedicated full poster sessions will be held after the oral presentation programs of the first and second conference day. Posters will be on display in the anteroom of the conference halls, and poster contributors will be available to explain and discuss their results to interested attendees during these sessions. Additionally, poster presenters will highlight their research results and encourage attendees to visit their poster in three-minute oral presentations during the Poster Previews sessions, to be held in all three conference halls immediately before the full poster sessions. Accepted and confirmed industrial poster presentations include the following contributions:

- **Advances in Fluoropolymer Resins for Ultra-Weatherable Coatings**
  Winn Darden, AGC Chemicals Americas

- **Utilization of Polyurethane-acrylic Blends to Achieve Optimum Performance in a 1K Water-based Wood Floor Coating that Meets Consumer and Environmental Expectations**
  C. Ivan Tyre, Alberdingk Boley, Inc.

- **Low VOC Concrete Coatings: Technology and Performance**
  Michael Praw, Alberdingk Boley, Inc.

- **Using Eco-Efficiency Analysis to Drive Sustainability in Paints and Coatings**
  Christopher Bradley, BASF Corporation

- **Dual-Functional Acrylic-Epoxy Resins Lead to Improved Epoxy-Amine Coatings Systems**
  Gregory Turco, BASF Corporation

- **Waterborne 2K Polyurethane Coatings on the Fast Track**
  Christoph Irle, Bayer MaterialScience AG, Germany

- **Waterborne Coatings for the Industrial Market – The Time is Now!**
  Raymond Stewart, Bayer MaterialScience LLC

- **Optimizing for Low Energy-Low Light Flux Curing of Coatings and Laminates**
  Eugene Sitzmann, Ciba Corporation

- **Light-Stabilized Coatings for Preservation of Wood-Plastic Composite Decking**
  Robert Waldron, Ciba Corporation

- **Formulation of 2K Waterborne Concrete Floor Coating to Meet New Low VOC Standards**
  Jennifer Rigney, Cytec Industries

- **A Novel, Environmentally-Friendly Approach to Industrial Hygiene and Prolonged Antimicrobial Protection**
  Ioana Annis, Dow Biocides

- **Formulating Architectural Coatings to Meet Green Environmental Initiatives**
  Michael Kaufman, Dow Chemical Co.

- **Nano-structured Particles to Enhance Green Coatings**
  Maria Nargiello, Evonik Industries

- **High Performance Water Repellent Acrylic Latices for Exterior Wood Coatings**
  Claude Nootens, Hexion Specialty Chemicals, Belgium

- **Photocatalytically Active Titanium Dioxide in Coatings and Construction Materials**
  A.P. Steve Valente, Kronos Worldwide

- **New Reactive Dispersants for UV/EB Inks and Coatings**
  Diana Hull, Lubrizol

- **New Waterborne Self-Crosslinking Acrylic for Industrial Wood Coatings Applications**
  Dennis Butcher, Lubrizol

- **Oxide Scale Protection**
  Stefan Sepeur, Nano-X GmbH, Germany

- **NanoComposite Coating for Evacuated Plastic Containers**
  Christian Breitwieser, Rembrandtin Lack GmbH Nfg. KG, Austria

- **Low Odor Aqueous Paint Formulations**
  Jerry Washel, Rohm and Haas

- **High Efficiency – High Performance Organic Pigments**
  Mehran Yazdani, Sun Chemical Ltd., Great Britain

Please note: Academic or governmental institutions are invited to contribute further poster presentations, highlighting recent research results that have a bearing on the future development of coatings materials, their use, or their analysis. Interested speakers please contact Mike Morgan, NPCA, mmorgan@paint.org for details of the application procedure and possibilities for financial support.
Plenary Session
12:15 – 1:30 p.m.

Welcome Address and Conference Introduction
Mike Morgan, NPCA
Barbara Brune, Vincentz Network

12:15 – 1:30 p.m.

Keynote Presentation
The Future of the Coatings Industry in America and the Role of Innovation and Technology to Advance the Industry to the Next Level
Lewis Manring, Global Platform Technology Director Coatings and Color, DuPont Performance Coatings

The coatings industry has always relied on sound science and technology to meet the demands for higher value and performance. This has allowed our industry to be a global pioneer in the development of environmentally friendlier and sustainable products that meet the needs of the consumer. In view of customer expectations for better solutions, Lewis Manring will share his vision of what the American coatings industry’s future can be, and challenge suppliers on how they can help the industry achieve this exciting Next Level.

12:35 – 12:50 p.m.

Keynote Presentation
The American Coatings Industry: Taking It to the Next Level Through Innovation and Collaboration
Wendy Hoenig, Vice President of R&D Dow Coating Solutions, The Dow Chemical Company

Speaking as a representative of the raw material supplier industry, Wendy Hoenig will outline how modern materials research will address challenges to our industry’s future success. Close collaboration between raw material suppliers, coatings manufacturers and end-users will become even more important to fully exploit these opportunities. Coatings produced from polymers tailored by controlled polymerization techniques, biologically inspired functionality, renewable substances, self-healing and self-assembling concepts, as well as high-throughput screening provide only a few of the exciting examples of science-based innovation lined up to indeed advance the American coatings industry to the Next Level.

1:20 – 1:30 p.m.

Presentation of the American Coatings Award

Poster Previews
5:00 – 5:30 p.m.

Full Poster Session/
Networking: After Work Party
Session 2

Novel Materials
Time and again, raw material suppliers as well as academic research institutions are coming up with coatings raw materials or procedures that offer fundamentally new tools to design, tailor, functionalize or improve coatings systems. Examples presented in this session include novel hardeners, new catalyst chemistries, polymer designed surface modified particles, novel inorganic-organic binder systems, and atmospheric pressure plasma deposition techniques for engineering surfaces.

2.1 2:00 – 2:30 p.m.
Principles and Application Perspectives of LCST Driven Surface Modification
Claus D. Eisenbach, Research Institute for Pigments and Coatings, FPL, Germany

2.2 2:30 – 3:00 p.m.
Novel TETA-Free Polyamides for 2K Epoxy Systems
Marcelo Rufo, Air Products and Chemicals, Inc., Brazil

2.3 3:00 – 3:30 p.m.
Siloxane-Binders
Stefan Sepeur, Nano-X GmbH, Germany

2.4 3:30 – 4:00 p.m.
Networking: Refreshments & Coffee Break

2.5 4:00 – 4:30 p.m.
New Sulfonic Acid Catalysts for Coil Coatings
Ram Subrayan, King Industries

2.6 4:30 – 5:00 p.m.
Atmospheric Pressure Plasma Liquid Deposition
Kyle Wermers, Dow Corning Corporation

Session 3

Sustainable Solutions
Sustainability is about living and working in ways that meet and integrate existing environmental, economic and social needs without compromising the well-being of future generations. This session provides examples of what the coatings industry has in store for this increasingly important issue, for instance, lowering VOC emissions, using renewable resources, substituting ecologically harmful substances and implementing highly eco-efficient procedures.

3.1 2:00 – 2:30 p.m.
New Resins for Low VOC Waterborne Trim and Maintenance Coatings
Dennis St. Laurent, Cytec Industries

3.2 2:30 – 3:00 p.m.
Low Odor, VOC-free, Renewable Coalescents Designed for Latexes Used in Very Low VOC Paints
Anbu Natesh, Cognis Corporation

3.3 3:00 – 3:30 p.m.
Sustainable Technology for Semitransparent Deck Stains
Greg Monaghan, Rohm and Haas Company

3.4 3:30 – 4:00 p.m.
Networking: Refreshments & Coffee Break

3.5 4:00 – 4:30 p.m.
Novel Low VOC Soya Polyester Acrylic Hybrid Coating
Madhukar (Duke) Rao, Sherwin Williams Company

3.6 4:30 – 5:00 p.m.
Drying Oil Additive for Foam Reduction
Michael Van De Mark, Missouri S&T Coatings Institute

3.7 5:00 – 5:30 p.m.
Closed Loop Recycling as a Sustainability Solution for the Paint & Coatings Industry
Stephanie Baker, KW Plastics

After Work Party

In conjunction with the poster session, conference attendees, chairpersons and speakers are invited to meet in a relaxed atmosphere immediately after the end of the oral conference program on Monday, June 2, 2008. The After Work Party of the American Coatings Conference is an ideal opportunity to renew and strengthen contacts, cultivate business relationships, exchange latest news and participate in discussions, as well as enjoy refreshments, and a beer.

www.american-coatings-show.com/conference
### Polyurethanes – Part 1

With a huge variety of binder chemistries combinable with a growing number of polyisocyanate varieties, polyurethanes are one of the most versatile classes of organic coatings, and usually represent the high-performance range of applications. Research continues unabated to further increase the performance of polyurethane coatings, particularly in view of environmental legislation demands. Thus, the first of two sessions dedicated to PUR materials developments focuses mainly on research aiming at high-performing 1K and 2K waterborne PUR coatings, as well as new radiation curing systems.

#### 4.1 9:00 – 9:30 a.m.
**Taking Ultra Low VOC Polyurethane Dispersions to the Next Level of Performance**
Peter Schmitt, Bayer MaterialScience

#### 4.2 9:30 – 10:00 a.m.
**Novel Waterborne Dispersion Technology for High Performance, Low VOC Coatings**
Charles Diehl, Dow Coating Solutions

#### 4.3 10:00 – 10:30 a.m.
**1K Polyurethane Dispersions for Conventional 2K Applications**
Anthony Pajerski, Lubrizol

**Networking: Refreshments & Coffee Break**
10:30 – 11:00 a.m.

#### 4.4 11:00 – 11:30 a.m.
**Improved Polyurethane Dispersions Using Non-ionic Diols**
Petra Winberg, Perstorp Specialty Chemicals AB, Sweden

#### 4.5 11:30 a.m. – 12:00 p.m.
**Waterborne Radiation Curable Polyurethanes**
Jurgen Van Holen, Cytec, Belgium

#### 4.6 12:00 – 12:30 p.m.
**Self-Initiated UV-Curable Allyl Ether and Vinyl Ether Urethane Monomers**
Igor Khudyakov, Bomar Specialties

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### Architectural Coatings

Challenging the architectural coatings world to achieve the Next Level, there is continued intense effort to close the performance and application properties gap between waterborne systems and conventional solvent-based systems even further. Different approaches to achieve high-performing, yet low or no VOC systems are discussed in this session. Examples include acrylic hybrid resins, formaldehyde-free, non-yellowing new reducing agents for water based polymers, modified hyperbranched resins, as well as a new class of rheology modifiers made by controlled radical polymerization methods.

#### 5.1 9:00 – 9:30 a.m.
**Waterborne Alkyd Dispersion Technology for Low VOC Stainblocking Primers**
Neal Rogers, Cook Composites and Polymers

#### 5.2 9:30 – 10:00 a.m.
**Zero VOC Alkyd Latex – Surpassing VOC Requirements in Architectural Applications**
Carl Sullivan, Reichhold Inc.

#### 5.3 10:00 – 10:30 a.m.
**New Acrylic Hybrid Polymers for Low VOC Coatings with a Step Forward in Application Properties Versus Conventional Acrylics**
Rosemarie Lauer, Rohm and Haas Company

**Networking: Refreshments & Coffee Break**
10:30 – 11:00 a.m.

#### 5.4 11:00 – 11:30 a.m.
**Low VOC Architectural Paints, Modified Hyperbranched Resins, a Solution in Performance**
Petri Mast, DSM NeoResins +, The Netherlands

#### 5.5 11:30 a.m. – 12:00 p.m.
**Improvement on Residual Monomers and Yellowing of Water Based Polymers by Use of Novel Reducing Agents**
Uwe Rubben, Brüggemann Chemical, Germany

#### 5.6 12:00 – 12:30 p.m.
**A New Class of Nonionic Rheology Modifiers for Waterborne Applications Based on Controlled Free Radical Polymerization**
Steffen Onclin, Ciba, Switzerland

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### Functional Coatings

New built-in functionalities are at the forefront of current coatings development. The market potential is immense and new application areas will open up new vistas. This session will provide an overview of several research and development activities in different fields, e.g. bio-engineered smart additives, silver antimicrobial systems, IR reflective coatings, sol-gel nanostructured coatings applications, and new intumescent coatings contributing effective insulation and a heat shield for the subsurface.

#### 6.1 9:00 – 9:30 a.m.
**Letting Mother Nature Tackle the Dirty Work: The Future of Coatings Additives**
James Rawlins, University of Southern Mississippi

#### 6.2 9:30 – 10:00 a.m.
**New Silver Based Antimicrobial Systems for Hygiene Coatings**
Cezanne Vielkanowitz, Clariant Corporation

#### 6.3 10:00 – 10:30 a.m.
**Evaluating Mildew Resistance of Interior Paints**
Lakshmi Sadasivan, Rohm and Haas Company
10:30 – 11:00 a.m.
**Networking: Refreshments & Coffee Break**
10:30 – 11:00 a.m.

#### 6.4 11:00 – 11:30 a.m.
**It’s a “Cool,” Cruel, World. Succeeding Through IR Reflective Coating Technology in a Challenging Marketplace**
David Story, BASF Corporation

#### 6.5 11:30 a.m. – 12:00 p.m.
**Thermal Coatings for Munitions Technology**
Pauline Smith, US Army Research Laboratory

#### 6.6 12:00 – 12:30 p.m.
**The Application of Sol-Gel Coatings for Industrial Applications**
Robert Aki, Sheffield Hallam University, Great Britain

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Session 7

Protective Coatings

Legislation and customer demands obliged the industry to replace chromium and to reduce solvents in anti-corrosive coatings. Various chromium-free and low VOC systems have been developed in order to comply with these requirements. However, as this session clearly shows, developments focus on all components of protective coatings, i.e., on innovative binder chemistries, on novel anticorrosive pigments, on new concepts for filler components, and novel self-healing functionalities that are even capable to react to damage.

7.1 2:00 – 2:30 p.m.
Properties and Performance of a New Waterborne Epoxy System Designed for Metal Protection
Alicia Wilson, Reichhold, Inc.

7.2 2:30 – 3:00 p.m.
Development of New Epoxy Resins for High Service Temperature Coatings
Fabio Aguirre, Dow Coatings Solutions

7.3 3:00 – 3:30 p.m.
An Organic Corrosion Inhibitor with Flash-rust/Early-rust Preventing Properties
Lars Ludwig Kirmayer, Heubach GmbH, Germany

7.4 4:00 – 4:30 p.m.
New Waterborne Epoxy Resin Dispersion for Low VOC, 2-Pack High Performance Metal Primers Without Using Anti-Corrosion Pigments
Ming Tsang, Cytec Industries Inc.

7.5 4:30 – 5:00 p.m.
Optimization Potential with Functional Fillers in Two-Component Polyaspartic Anti-Corrosion Coatings
Reimund Pieter, Hoffmann Mineral GmbH & Co. KG, Germany

7.6 5:00 – 5:30 p.m.
Evaluation of Self-Healing Polymer Chemistries for Application in Anti-Corrosion Coatings
Magnus Andersson, Autonomic Materials, Inc.

Session 8

Pigments

Color, appearance, and its measurement, are the combining topics of this session, which presents new pigment systems, highlighting both novel chemistries as well as improvements in established pigment systems, new pigment grinding resins, where low VOC waterborne technology is coming up, innovative characterization techniques for effect pigmented coatings, and for exciting new work on the ubiquitous titanium dioxide.

8.1 2:00 – 2:30 p.m.
New Advances on an Old Technology: PY 74
Nilanjan Chakrabarti, BASF Corporation

8.2 2:30 – 3:00 p.m.
Pigments and Coating Engineering for High Durability Coatings
Mark Vincent, Dominion Colour Corporation, Canada

8.3 3:00 – 3:30 p.m.
New Waterborne Pigment Grinding Resin for High Performance Coatings
Ming Tsang, Cytec Industries Inc.

8.4 4:00 – 4:30 p.m.
Hybrid Pigments: What is the Difference and Why Do We Need Them?
Lee Young, BASF Corporation

8.5 4:30 – 5:00 p.m.
The Macroscopic Appearance of Effect Coatings and Its Relationship to the Local Spatial and Angular Distribution of Reflected Light
Frank J. Maile, Merck KGaA, Germany

8.6 5:00 – 5:30 p.m.
Measurement and Evaluation of the 8 Fundamental Factors that Impact TiO₂ Pigment Light Scattering
John Crowther, DuPont de Nemours & Co.

Session 9

Dirt Pickup and Easy-to-Clean Coatings

Dirt is more than a nuisance. It ruins the aesthetic appearance, it can erode technical functionalities and it may even be a health risk. Cleaning of walls and facades is costly and laborious. With the focus session on this topic, six high-level presentations will present state-of-the-art self-cleaning/easy-to-clean coatings. Materials and methods presented include polyvinylidene fluoride coatings, novel fluorne-based surfactants, waterborne coatings, nano-composite emulsions, silicone cure tetrafluoroethylene co-polymer resins, and an accelerated test method for the evaluation of dirt pickup resistance.

9.1 2:00 – 2:30 p.m.
Oleophobic, Hydrophilic Coatings: The Optimum System for Exterior Dirt Pickup Resistance
Jean Meng, DuPont Company

9.2 2:30 – 3:00 p.m.
Novel Chemistry Improves Surface Performance
Steve Block, Dow Corning Corporation

9.3 3:00 – 3:30 p.m.
Responsive Polymers for an Easy-to-Clean Coating
Gaelle Baquey, Chamelic Ltd, Great Britain

9.4 4:00 – 4:30 p.m.
Nano Organic-Inorganic Composite Acrylic Emulsion for Dirt Pickup Resistant High Performance Coatings
Rajeev Farwaha, Celanese Emulsions

9.5 4:30 – 5:00 p.m.
Dirt Pickup Resistance of PVDF Architectural Coatings
Shiow-Ching Lin, Solvay Solexis

9.6 5:00 – 5:30 p.m.
An Accelerated Laboratory Test for Evaluation of Dirt Pickup Resistance of Exterior Paints
Dan Wu, DuPont Titanium Technologies

American Coatings Award

The new and prestigious American Coatings Award will be bestowed upon the most outstanding technical presentation at the American Coatings Conference. Selected and sponsored by NPCA and Vincenz Network, the American Coatings Award 2008 will be presented at the opening Plenary Session on June 2. The winner will be endowed with $2,500 and an attractive sculpture.
**Session 10**

**Polyurethanes – Part 2**

The second PUR session of the conference highlights recent research performed to develop improved low VOC high solid formulations based on new chemistries such as oxazolidines, or highly functional polyisocyanates. Novel low-bake powder polyurethane coating systems promise to enable the convenient coating of temperature sensitive materials. The session also puts forward new binders materials that reduce the concern for isocyanate monomer content.

10.1  9:00 – 9:30 a.m.

**A Novel Line of Air Drying Resins to Meet VOCs**

David Zielinski, Bayer MaterialScience LLC

10.2  9:30 – 10:00 a.m.

**Improved Properties Offered by Higher-Functionality Aliphatic Polyisocyanates**

Patricia Jacobs, Bayer MaterialScience

10.3  10:00 – 10:30 a.m.

**Developing Polyurethane Coatings with Low or No Free Isocyanate**

Richard Jones, Baxenden Chemicals Ltd, Great Britain

10:30 – 11:00 a.m.

Networking: Refreshments & Coffee Break

10.4  11:00 – 11:30 a.m.

**Empowering Powder – Polyurethanes for Low Temperature Cure Powder Coatings**

Corey King, Evonik Degussa Corporation

10.5  11:30 a.m. – 12:00 p.m.

**Oxazolidines – Enhancing Productivity and Performance in Polyurethane Coatings and Paints**

Shuyuan Liu, Industrial Copolymers Ltd, Great Britain

12:00 – 12:30 p.m.

**The Latest Developments in Light-Stable Sprayable Thick Film Coatings**

David Zielinski, Bayer MaterialScience LLC

**Session 11**

**Testing and Laboratory Methods**

Quality testing and analysis are essential in both the production and development of industrial products, and some aspects are universally valid. Methods should be comparable, reliable, rapid, and economically effective. The six papers of this session present important studies on such methods, including a correlation study of Xenon arc accelerated weathering test equipment for use in automotive testing, as well as new methods for the characterization of effect coatings and paints, and X-ray fluorescence for the determination of the titanium dioxide content in paints. In addition to such specific methods, high throughput screening techniques are strongly promoted for the fast and effective development of new formulations, allowing a fast transfer of research candidates into pilot and production scale.

11.1  9:00 – 9:30 a.m.

**New Measurement System for Characterizing Effect Coatings**

James Jim, Byk-Gardner USA

11.2  9:30 – 10:00 a.m.

**Major Advances in the Reliable Measurement of the Color and Appearance of Special Effect Paints and Coatings**

Brian Teunis, X-Rite Inc.

11.3  10:00 – 10:30 a.m.

**Determination of Titanium Dioxide Content in Commercial Paints by X-ray Fluorescence**

John (Jack) Dickinson, DuPont

10:30 – 11:00 a.m.

Networking: Refreshments & Coffee Break

11.4  11:00 – 11:30 a.m.

**Automotive Xenon Arc Test Methods: A Correlation Study**

Jeffery Quill, Q-Lab Corporation

11.5  11:30 a.m. – 12:00 p.m.

**A Modular Workflow for High Throughput Application of Thin Organic Coatings**

Torsten Zech, hte Aktiengesellschaft, Germany

12:00 – 12:30 p.m.

**Speed Up Your Coating Development: High Throughput Screening for Low VOC Coatings**

Nick Gruber, BASF AG, Germany

**Session 12**

**Industrial Coatings**

Achieving the performance level of conventional solventborne industrial coatings with environmentally friendlier systems is the key challenge in the industrial coatings sector. Focusing on industrial metal and concrete substrates, this session highlights innovative developments, where sophisticated waterborne technology, novel acrylic emulsion techniques, or new developments in amine curing agents and performance additives enable enhanced coatings properties, while ensuring the protection of health and the environment.

12.1  9:00 – 9:30 a.m.

**Concrete Coatings to Meet Performance and VOC Demands**

Elizabeth Blankschaen, Lubrizol

12.2  9:30 – 10:00 a.m.

**High Cross Link Density Acrylic Emulsions**

Charles Rumble, Specialty Polymers

12.3  10:00 – 10:30 a.m.

**Application of a Novel Waterborne Technology for Low VOC Industrial Maintenance Coating Systems**

Peter Smith/Leo Procopio, Rohm and Haas/Tnemec

10:30 – 11:00 a.m.

Networking: Refreshments & Coffee Break

12.4  11:00 – 11:30 a.m.

**Enhancing Productivity in Industrial Maintenance Coatings**

Allen Cheek, Eastman Chemical Company

12.5  11:30 a.m. – 12:00 p.m.

**New Opportunities for Cycloaliphatic Epoxide Formulators**

Brendan Cullinan, Brenntag Specialties Inc.

12.6  12:00 – 12:30 p.m.

**Innovative Waterborne Amine Curing Agents for Epoxy Resins**

David Fernee, Hexion Specialty Chemicals

www.american-coatings-show.com/conference
Venue
The American Coatings Show 2008 and the American Coatings Conference will be held at:
Charlotte Convention Center
Entrance:
East Martin Luther King Jr. Boulevard
Charlotte, NC 28202
www.charlotteconventionctr.com

Organizers
National Paint and Coatings Association
1500 Rhode Island Avenue, N.W.
Washington, D.C. 20005
Vincentz Network
Plathnerstr. 4c
30175 Hannover, Germany

Duration & Opening Hours
Conference: June 2 – 4, 2008
Trade Show: June 3 – 5, 2008
Opening Hours Trade Show:
June 3 – 4, 2008,
9 a.m. – 5 p.m.
June 5, 2008,
9 a.m. – 3 p.m.

Registration Options
American Coatings Conference Registration
Fees include:
 Admittance to the Conference Day booked
 Conference Proceedings as CD-Rom
 List of Conference Attendees
 Permanent Trade Show Ticket
 Trade Show Directory
 Luncheons & Coffee Breaks

Pre-Conference-Tutorials Registration
Fees include:
 1.5 hours interactive lecture in a small group
 Pre-Conference Tutorial Proceedings
 List of Pre-Conference Tutorial Attendees of the Conference booked
 Permanent Trade Show Ticket
 Trade Show Directory
 Coffee Break before or after the Pre-Conference Tutorial

American Coatings Show Registration
Fees include:
 Trade Show Ticket
 Trade Show Directory

3 Ways to Register for the Conference or Trade Show
Register on-line at
Conference & Trade Show Registration
www.american-coatings-show.com/registration
Fax or e-mail the registration form to
Conference:
+49 511 9910-279
conference@american-coatings-show.com
Trade Show:
+1 770 618-5831
info@american-coatings-show.com
Mail the registration form to
Conference:
Vincentz Network
Plathnerstr. 4c
30175 Hannover, Germany
Trade Show:
NürnbergMesse North America, Inc.
400 Interstate North Parkway, Suite 550
Atlanta, GA 30339

Cancellation/Refunds
Cancellation deadline is May 19, 2008. All cancellations must be received in writing by May 19, 2008, to receive a refund minus $ 100 processing fee. Refund requests received after May 19, 2008, will not be refunded. All refund requests are processed post-show. Substitutions are welcome in lieu of cancellations.

Hotel Reservation
Hotel accommodation is not included in the registration fees. Reservations will be handled by our service partner Visit Charlotte Housing Bureau. A hotel reservation form shall be sent to you together with your conference confirmation and can also be downloaded from our website www.american-coatings-show.com/accommodation

Visa Information
Please keep in mind that international attendees might need to obtain a visa for visiting the USA. In order to obtain a visa letter from the organizer, please contact the visitor service of the NürnbergMesse North America at: info@american-coatings-show.com

Photographs
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Conference Registration Form

After May 14, 2008 attendees are asked to register on-site in Charlotte. Please note that on-site registrations cannot be guaranteed as conference places are limited. An on-site registration carries an additional fee of 10% of the conference fee, to cover the additional processing costs.

### Step 1  General Information

<table>
<thead>
<tr>
<th>Title</th>
<th>First Name</th>
<th>Last Name</th>
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<tbody>
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</tbody>
</table>

Email

Phone

Fax

Mailing Address

Company

Department (if applicable)

Address

City/State/ZIP

Country

Register on-line! [www.american-coatings-show.com/registration](http://www.american-coatings-show.com/registration)

### Step 2  Registration Options

<table>
<thead>
<tr>
<th>Standard Fee</th>
<th>Reduced Fee</th>
<th>University Members</th>
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</thead>
<tbody>
<tr>
<td>$699</td>
<td>$629</td>
<td>$350</td>
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#### Full Conference  June 2 – 4, 2008, excl. Pre-Conference Tutorials

Your all-access pass to the complete American Coatings Show and Conference. All speakers, all sessions in every track – including keynote sessions, all coffee breaks, luncheons, After Work Party, and full access to the American Coatings Show.

#### Two-Day Pass  Choose One Combination:

- $499
- $499
- $450

#### Single-Day Pass  Choose One:

- June 2, 2008
- $299

- June 3, 2008
- $350

- June 4, 2008
- $299

#### Pre-Conference Tutorials

Please note that the Pre-Conference Tutorials and the main conference are two individual events. Participation is limited at the exclusive tutorials and will be reserved on a first come, first served basis. **Extra-registration is absolutely necessary.**

#### Pre-Conference Tutorials I – III  8:30 – 10:00 a.m.

Please choose one:

- Tutorial I, $150
- Tutorial II, $150
- Tutorial III, $150

#### Pre-Conference Tutorials IV – V  10:30 a.m – 12:00 p.m.

Please choose one:

- Tutorial IV, $150
- Tutorial V, $150

### Step 3  Method of Payment

After having received the conference registration attendees will receive a written confirmation of participation and invoice.

Credit Card

- $99

- $499

- $450

- $299

- $269

- $315

- $149

- $175

- $199

Date, Signature

**Discounts:** Companies who are exhibitors at the AMERICAN COATINGS SHOW 2008 or members of the NPCA will be given a 10% discount of the standard fee.

I am exhibitor/member of:  □ ACS 2008  □ NPCA