



MONDAY
JANUARY 11, 2010

Maple Meadows, Wood Dale IL

5:00 Registration / Cocktails

5:45 Speaker

6:45 Dinner & Meeting

\$30 members with reservations

\$35 non-members and walk-ins

CHEMISTS FREE!!! (see p. 2)

Use of UV Absorptive Nanoparticles to Enable Transparent Outdoor Wood Protection

Dr. Roger Cayton, Nanophase Technologies

The long-term protection of outdoor wood used in residential decks, fences, log homes and similar structures against the destructive effects of UV light continues to be an area of intense research activity and commercial interest. In many cases, reasonably effective wood coatings can be obtained by incorporating high loadings of "transparent" iron oxides in combination with organic UV absorbers and radical scavengers. This solution, in addition to being costly, has the primary disadvantage of imparting some pigmentation and unnatural coloring to the wood. Well known organic UV absorbers have shown only modest benefit when used alone, and so such formulations typically require that the wood be re-coated at least seasonally to maintain protection against damaging UV rays. As a consequence, long lasting UV protection in a true clear (transparent) outdoor wood coating has remained an elusive goal. However, because they do not degrade, decompose, or discolor over time, certain UV absorbing metal oxide nanoparticles - zinc oxide and cerium oxide in particular - exhibit excellent activity in both water borne and solvent based exterior wood coatings. These solutions

are most effective when a dispersion of primary nanoparticles can be prepared which is compatible with the target coating formulation. This paper discusses aspects of optimizing a nanoparticle-based coating solution for transparency and stability, and presents both accelerated and outdoor UV testing results demonstrating the efficacy of metal oxide nanoparticles in enabling a totally clear outdoor wood coating solution.

DR. ROGER CAYTON received his PhD in Inorganic Chemistry from Ohio State University in 1988. He was a Research Fellow at Indiana University from 1988-1991 in metallic liquid crystals and organometallic polymers, and worked with catalyst design and development and natural gas upgrading at BP Amoco Refining Technology from 1991-2000. Dr. Cayton has been with Nanophase Technologies Corporation since 2000, doing R&D in the areas of nano metal oxide dispersion development and nanotechnology for coatings applications.

Next Generation Water Based Alkyd Dispersions

Gina Grochalski, DSM NeoResins

With the ever increasing limitations on the Volatile Organic Compound (VOC) contents in the industry, many solvent borne coatings will no longer be able to be sold in the North American market. While acrylic and PVA resins are readily available in the market, they do not lend many of the same attributes as a solvent borne alkyd. Alkyd dispersions can bridge the performance gap between water based and solvent borne coatings, while meeting, or even exceeding, all of the North American VOC regulations. This new technology can impart a similar feel in application and high gloss capability to a solvent borne coating as well as giving improvement in degree of yellowing, dry through time, storage stability, and odor. Alkyd dispersions are the logical step for companies wishing to replace their solvent borne coatings, without introducing a large change to the end customer.

GINA GROCHALSKI received her Bachelor's degree in Chemistry from Penn State University in 2000. She has been involved in the Paint & Coatings industry for almost 10 years, beginning as a formulations chemist at a coatings company and is currently working as a group leader at DSM NeoResins. She is primarily focused on the Architectural market of paints, stains, and joinery applications.



*What were you doing
25 years ago?*

If you were a member of any Society for Coatings Technology 25 years ago and are now a member of the CSCT you may qualify for the

CSCT 25 Year club

However, we need to know who you are.

Call or write:
Evans Angelos
417 Naperville Road
Clarendon, IL 60514
(630) 323-6474
evansangelos@comcast.net

New CSCT Members

Lorene McMahon - Sherwin Williams

Randy Peterson - Seymour of Sycamore

Howard Robins - Consultant

These members will be welcomed and their membership made official at our **January 11, 2010** meeting.

The CSCT recognizes the passing of members and friends in our industry

Keith Lexby

Universal Chemicals and Coatings and CSCT Member
Passed away November 17, 2009

Margaret Wolf

Mother of Doug Wolf, Sherwin Williams
Passed away December 17, 2009

Our sympathy is extended to the families.

Manufacturers are **Free** at our Technical Meetings

If you are a member of the CSCT and serve in a technical role at a manufacturer of paint, coatings or inks you are invited to join us for our technical meetings **free of charge**.

\$\$\$ that's a \$30-\$35 savings to you or your company each time you attend \$\$\$

Simply email your reservation to kderose@spherotech.com

Walk-ins are welcome, but make your reservation prior to the meeting and your name will be entered in a drawing for a \$25 gift card.

YOUR MEMBERSHIP DOLLAR\$ AT WORK—IT MAKE\$ GOOD ¢ENT\$



It's Scholarship Time!

***Application Deadlines:
March 17, 2010 and April 2, 2010***

Did you know?

Your modest membership dues could grow into
several thousands of dollars
for your child's future!

Each year the CSCT gives away **\$2,000 Merit Scholarships** to children or grandchildren of current CSCT members that are pursuing an education in the physical sciences.

AND . . .

Together with the CPCA (Chicago Paint & Coatings Association) we give away **thousands more dollars**, regardless of the student's course of study.

That's a pretty good return on investment these days!!!

Did your son or daughter apply last year and not get selected?

Apply Again!!

As long as the student still meets the requirements of each award they may continue to apply each year.

Did your son or daughter receive a scholarship last year?

Apply Again!!

Your student is still eligible to apply for the scholarship they did not receive if they meet the requirements.

(Previous Merit Scholarship recipients may apply for the Joint Scholarship and vice versa)

**Applications for are now available on our website at
www.chicagocoatings.org.**

Recipients will be announced at our April 2010 meeting.

C/O JIM DONOVAN
THE CARY COMPANY
18843 Center Avenue
Homewood, IL 60430

CSCT 2009-2010 Calendar of Events

January 11, 2010 <i>Monday</i>	<i>Waterbased Alkyd Dispersion Technology</i> presented by DSM NeoResins <i>UV Absorptive Nanoparticles In Outdoor Wood Protection</i> presented by Nanophase Technologies	Maple Meadows <i>Wood Dale IL</i>
February 8, 2010 <i>Monday</i>	<i>Technical Meeting TOPICS TBA</i>	Maple Meadows <i>Wood Dale IL</i>
March 8, 2010 <i>Monday</i>	<i>Additives for Low VOC Coatings</i> presented by Cognis <i>Low VOC Coatings for Masonry</i> presented by Lubrizol	Maple Meadows <i>Wood Dale IL</i>
April 5, 2010 <i>Monday</i>	<i>TIO2 and Coatings</i> presented by Dupont <i>Advances in New Pigment Technology</i> presented by Dominion Colour	Maple Meadows <i>Wood Dale IL</i>
MAY 2010	CSCT AWARDS DINNER	TBA
JULY 2010	CSCT GOLF OUTING	St. Andrews <i>West Chicago, IL</i>
MAPLE MEADOWS GOLF COURSE: 272 S. Addison Rd, Wood Dale, IL 60191 (630) 616-8424 Located off I-290, 1 mile north of Lake Street on Addison Road		



LOOKING AHEAD—OTHER INDUSTRY EVENTS

April 13-15, 2010	NPCA & FSCT American Coatings Show	Charlotte, NC
October 5-6, 2010	SYMCO and Coating Trends & Technologies <i>sponsored by CSCT & PCI MAGAZINE</i>	Local
Spring 2011	CSCT Windy City Coatings Course	Local

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