



January 2017

Volume 19-12

JANUARY 2017 NEWSLETTER

JANUARY DINNER MEETING

*The CSCT January meeting will be held on Monday, January 9th at the Uncle Julio's
in Naperville*

Registration will begin at 5:30 and the speaker will begin at 6:00 followed by dinner.

Reservations may be made on our website at

<http://www.chicagocoatings.org/>

*Once again, the CSCT will offer an outstanding speaker and continue a CSCT tradition of
raffling off several valuable prizes for our members!!*

The topic of the January meeting will be:

***"Performance Characteristics of Coatings Containing Highly Fibrillated HDPE in
Coatings"***



by

Jeffrey Hyde

Vice President, Sales and Marketing, MiniFIBERS, Inc., Johnson City, TN

Abstract:

Synthetic fibers are usually produced via melt or solution spinning processes that yield filaments that are rod like in structure. Via a unique process, highly fibrillated fibers can be produced which have extraordinary three dimensional structures. These kinds of fibers impart unique properties when used in a wide range of coatings applications.

Studies find that these fibers can suspend pigment and filler particles very effectively by trapping them in the voids of their three dimensional structure. This property gives rise to prevention of hard settling in coatings in which they are used.

Coatings made with these fibers are less susceptible to water absorption leading to improved water resistance. Data on this property will be presented. Coatings containing these fibers also show improved flexibility which leads to crack resistance. Data on film ductility will be shared. Also, films containing these fibers exhibit improved impact resistance as well as better performance when they are subjected to freeze thaw cycles. Data on this performance will be presented. In addition, these fibers have been observed to improve coalescence as measured by the reduction of the minimum film formation temperature of emulsions when these fibers are present.

Finally, these fibers are reliable pseudo-plastic rheology modifiers, acting in a physical manner with the arms of the fiber in the fluid resisting flow, and then when subjected to shear, thinning because the fibrils fold-in reducing viscosity resulting in pseudo-plastic rheology. The rheological properties of coatings made with these fibers will be presented. Interesting results in deeply tinted paint systems which can be problematic for rheology after tinting will also be presented.

**Speaker's Biography**

Dr. Hyde earned a Ph.D. in Inorganic Chemistry at The University at Albany. His experience extends to the development of heat stabilizers and lubricants for rigid PVC; development of new titanium dioxide products for coatings, plastics, and paper; development of new grades of calcium carbonate products for plastics and coating applications; and is presently working with Minifibers in the development of applications for highly fibrillated HDPE fibers

2016-2017 Technical Dinner Meeting Schedule

February 13th at Wildfire 1250 E Higgins Rd, Schaumburg, IL 60173

March 13th at Purdue University-Calumet 2200 169th St. Hammond, IN 46323

April 10th at Redstone American Grill 13 Lincoln Center, Oakbrook Terrace, IL 60181

Other Notable Events



Windy City Coatings Course

April 18-19, 2017 O'Hare Campus of DePaul University

&



May 18th, 2017 - Past Presidents and Awards banquet

Maggiano's Little Italy

240 Oak Brook Ctr., Oak Brook, IL 60523

Past Events

2016 Holiday Party



December 1st CSCT/CPA Joint Holiday Party @ Venuti's in Addison, IL

Please click link for Photos of the Party:

http://www.chicagopaint.org/pages/slideshow.php?album=2016/Holiday_Party

ANTI-TRUST STATEMENT from the CSCT Bylaws

AI-VII ANTI-TRUST STATEMENT

In order to protect your personal and company interest while attending a CSCT function our policy of compliance with all antitrust laws are strictly followed. Penalties for violation of antitrust laws include severe fines and imprisonment, so the CSCT urges you to these guidelines while attending a CSCT function.

- ***Do Not discuss prices (including price increases and pricing methods), discounts, term of sale, and the refusal to deal with another company or profit margins with any representative of any associative company.***
- ***Do Not make any announcements about your prices or those of competitors.***
- ***Do Not talk about the plans of individual companies (yours/competitors) regarding specific geographic or product markets or regarding particular customers.***

For each meeting an agenda and minutes are prepared, both of which are reviewed by the CSCT Executive Board before they are read at the meeting. This helps to ensure that the Anti-Trust laws are observed.

If you have any questions please contact a CSCT board member*

****Current CSCT Board Members contact information may be found on the CSCT website***

<http://www.chicagocoatings.org/>





Chicago Society *for* Coatings Technology

EDUCATION

SCHOLARSHIPS

CSCT offers two scholarships

- **CSCT Merit Scholarship** - This scholarship is intended to foster a pursuit of a college education in the physical science by the children or grandchildren of current members of CSCT
- **CSCT/CPCA Joint Scholarship** - This scholarship is awarded to children of the CSCT or CPCA member. The course of study is not a consideration. Recipients are drawn at random at the CSCT spring meeting in April

**The same application used for both the CSCT Merit
and CPCA/CSCT Joint scholarships**

Scholarship Guidelines General

Candidates meeting the requirements below are eligible to apply for both scholarships each year of their collegiate career. However, they may receive each respective scholarship award only one time and may receive only one of the scholarships in any given year. (E.g. the Merit Scholarship award recipient will not be included in the drawing for the Joint Scholarship that year, but may reapply for the Joint Scholarship the following year.) The candidate must reapply each year to be considered for that year's scholarship awards.

1. The CPCA/CSCT Joint Scholarship

This scholarship is awarded to children of the CSCT or CPCA, and course of study is not a consideration. Recipients are drawn at random at the CSCT spring meeting in April. The odds of winning this joint scholarship based on your attendance to CSCT technical dinner meetings.

APPLICATION MUST BE SUBMITTED TO THE CPCA EDUCATION CHAIR BY APRIL 1

2. CSCT Merit Scholarship

This scholarship is intended to foster a pursuit of a college education in the physical sciences by the children or grandchildren of current members of the CSCT.

REQUIREMENTS AND INSTRUCTIONS FOR CANDIDATES

- 1. Complete the application attached to this instruction sheet along with the items below**
 - 2. One letter of recommendation is required from a teacher, principal, guidance counselor, or Department head or from someone involved with your extra-curricular activities, job, or Community service**
 - 3. A copy of your most recent high school transcripts that includes ACT and /or SAT score if the candidate is a high school senior. Undergraduates must include the most current college transcript**
 - 4. An essay titled “The need for a college education” including how your selected area major can be a benefit in the future. Essay to be limited to one typed page**
 - 5. Applicant must be the son or daughter, or grandson or granddaughter, of a CSCT member and said member is a current member in good standing for of a minimum of two years**
 - 6. Curricula pursued by the applicant must include one of the physical sciences, examples; Mathematics, Chemistry, Computer Science, Physics, & Engineering.**
 - 7. The candidate be a full time student, attending (or a high school senior registered to) any Accredited college or university leading to a degree in one or more of the above curricula**
 - 8. The grant is for one year and is not renewable or transferable**
 - 9. Award is paid directly to the college or university for application against tuition and fees**

COMPLETED APPLICATION, TRANSCRIPTS AND LETTER OF RECOMMENDATION MUST BE SUBMITTED TO THE CSCT EDUCATION CHAIR BY MARCH 20, 2017



**Scholarship application process already started !
PCPA/CSCT Joint Scholarship based on a random draw. The odds of winning this scholarship based on your attendance to CSCT dinner meetings**

POLYMER AND COATINGS SCIENCE DEGREES

POLYMERS & COATINGS SCIENCE

Masters Degree Program at DePaul University

Modern coatings, a \$10 billion industry in the United States, protect and beautify our surroundings. The need for improved products, concern for their effects on the environment, and the need to conserve petroleum resources present new challenges to the coatings industry as well as new opportunities for chemists trained in polymers and coatings science.

DePaul University is one of only four institutions in the United States that offers a graduate program of study in the coatings field. The program began in 1985 and has six to eight graduates each year.

PROGRAM OBJECTIVES

The main objectives of the program are twofold: To satisfy the demand for technical professionals in the coatings industry at an advanced level, and to provide an opportunity for Bachelor of Science level coatings chemists in the Chicago area to enhance their knowledge and skill for improved levels of performance and advancement in salary and rank.

EXPERT FACULTY

The Department of Chemistry at DePaul University has eleven full-time faculty members and has been offering courses in polymer chemistry since 1971. Chemists from local industries teach specialized coatings courses.

PROFESSIONAL ENDORSEMENT

The Coatings Technology Program at DePaul University has received the endorsement and active support of the Chicago Society for Coatings Technology and the American Coatings Association.

ADMISSION REQUIREMENTS

The program requires graduate admission to DePaul University. Candidates should have earned the Bachelor of Science degree in chemistry or its equivalent. The twelve-course curriculum (48 quarter hours) requires about nine quarters of study. Required courses include five advanced courses in Inorganic, Organic, and Physical Chemistry; three courses in Polymer Chemistry (Synthesis, Characterization, and Physical Chemistry), and 2 courses in Coatings Technology.

All graduate courses are taught in the evening, with labs on Saturday morning. Students may also enroll in Coatings and Polymer courses as non-degree seeking students to enhance their knowledge.

CONTACT INFORMATION

Dr. Gregory B. Kharas
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<http://www.depaul.edu/>

GRADUATION REQUIREMENTS

Courses: a minimum of 48 quarter hours (q.hrs.), including:

CHE 422. Inorganic Structure and Reactivity
CHE 450. Adv. Mechanistic Organic Chemistry
CHE 452. Adv. Synthetic Organic Chemistry
CHE 430. Polymer Synthesis
CHE 431. Polym. Synthesis Laboratory (2 q.hrs.)
CHE 432. Physical Chemistry of Polymers
CHE 434. Polym. Characterization
CHE 435. Polym. Characterization Lab. (2 q.hrs.)
CHE 436. Polymer Technology
CHE 438. Material Science
CHE 460. Coatings Technology I
CHE 462. Coatings Technology II

All courses above are 4 quarter hours except lab courses (2 q.hrs.)

And any two of the following special topics courses (2 for a total of 4 q.hrs.)

CHE 480. Sp. Topics in Analytical Chemistry
CHE 484. Sp. Topics in Inorganic Chemistry
CHE 486. Special Topics in Organic Chemistry
CHE 488. Special Topics in Physical Chemistry

The specific schedule of courses taken will depend upon when the program is started, when the courses are offered, and the student's personal preference regarding sequencing and course loads.



Paint a
brighter
future with...

a PURDUE DEGREE

*Make Purdue University Calumet
your destination for success.*

- One of the **top engineering programs** among universities whose highest degree is a Bachelor's or Master's (*U.S. News and World Report*)
- **American Chemical Society-accredited** Chemistry program
 - Internationally respected **research centers**
- **Partnerships with industry** offer hands-on learning

"The program provided me with a solid foundation for chemistry. It also introduced me to the paint and coatings industry terminology. This directly led to my desire to join the industry and helped my interview process."

– Daniel Woods, Purdue Calumet alumnus
and Sherwin Williams employee

**PURDUE
CALUMET**

COLLEGE OF ENGINEERING,
MATHEMATICS & SCIENCE

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(219) 989-2468 for more information.

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Located near Chicago in Hammond, IN

COATING COURSES

Windy City Coatings Course April 18-19, 2017

The Windy City Coatings Course will take place April 18-19, 2017, at the O'Hare Campus of DePaul University. This two-day educational forum offers introductory and advanced sessions led by top-level coatings specialists.

Whether you want to enrich your knowledge or revisit the basics, this course is uniquely designed to let you customize your schedule based on your educational needs and provides a relaxed environment to network and share best practices with both veterans and novice coating professionals





Chicago Society *for* Coatings Technology

CSCT 25/50 YEAR CLUB

What were you doing 25 years ago.....50 years ago?

If you were a member of any Society for Coatings Technology
25 or 50 years ago and are now a member of the CSCT you may qualify for the
However, we need to know who you are, please contact [Evans Angelos](mailto:evansangelos@comcast.net)
evansangelos@comcast.net or Tel: 630-323-6474