

ISCSST

International Society of Coating Science & Technology



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Ventura, CA 93004

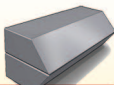
Who Should Attend:

This Symposium is designed for engineers and scientists who are interested in the fundamental understanding of all aspects of the coating process from liquid application through solidification and final coating microstructure and property development. The Symposium format includes oral and poster presentations as well as networking opportunities. The symposium is well suited to both academic and industrial participants. In past symposia, many different industries, including imaging, electronics, energy, medical/life sciences, metal coil coating, paper, printing, information storage, automobile, textile and chemical, have been represented.



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Pressure Sensitive Tape Council (PSTC)

In cooperation with

The European Coating Symposium

The Japan Coating Symposium

Facilitated by

The Tiara Group, Inc.

Call for Papers and First Announcement

ISCSST

International Society of Coating Science & Technology

16th International Coating Science and Technology Symposium

September 9-12, 2012

Loews Atlanta Hotel

Midtown Atlanta, Georgia, USA

This Symposium, with contributions from experts from Europe, Asia, and the Americas, is the premier event in the area of liquid film coating and related process phenomena. The meeting provides a forum for discussion of recent advances in understanding the processes of applying and solidifying thin liquid coatings. Both fundamental and applied papers are encouraged; however, preference will be given to papers that appear to be of interest to the broadest audience.

In 2012, the ISCST Symposium will be co-located with the **TAPPI Advanced Coating Fundamentals Symposium** providing attendees and presenters with expanded learning and networking opportunities.

Call for Papers and Posters

The following is a list of Symposium Topics for the 16th International Coating Science and Technology Symposium to be held in Midtown Atlanta, Georgia 9 - 12 September 2012. Abstracts for oral and poster presentations can be submitted for all sessions, including the two special sessions. Posters will be on display throughout the Symposium. Please submit an abstract for the session that you think best fits one of the following:

Technical Sessions

Coating Application Processes

A hallmark of the ISCST meeting is this session on the engineering and science of coating application methods, either conventional or novel. Presentations are encouraged on topics of a fundamental, experimental, numerical or analytical nature that are related to liquid flows and rheology, defects and stability, air entrainment, wetting, and other application related issues.

Solidification and Microstructure Development

Coatings are solidified and coating microstructures are established by a variety of processes, including drying, curing, coalescence (film formation), phase separation, and gelation. Presentations on the fundamentals of these processes and related topics such as microstructure-property relationships, stresses and defects, particle microstructures, and coating adhesion are encouraged.

Discontinuous Coating Processes

Many coated materials are produced by techniques in which the substrate is not a continuous flexible web or the coating liquid is applied in discrete parcels. Examples include spray coating, dip coating, gravure coating, spin coating, powder coating, and ink jet printing. Presentations on the process fundamentals, including those related to liquid flow and solidification, are encouraged.

Nanomaterial and Nanoscale Coatings

This session features processing challenges and opportunities in the use of nanomaterials in coatings and nanoscale features in coatings, such as ultrathin coatings and nanoscale patterns. Possible presentations topics include nanoparticle-based coatings, nanocomposites, layer-by-layer self assembly, microcontact printing, convective assembly, and thickness control at the nanometer level.

Special Technical Sessions

Mechanics of Printing

This session will explore the fundamental aspects of web-based (roll-to-roll) printing processes. Studies, both modeling and experimental, of mechanical deformations, fluid mechanics, elasto-hydrodynamics, drying, diffusion, and other relevant physics

of gravure, flexographic, screen, lithographic, and micro-contact printing processes are of interest. With continuing excitement in applying printing to non-traditional areas like electronics, and push for limits in printing resolution and uniformity, the need for solid fundamental understanding has never been greater.

New and Emerging Technologies

There is an increasing demand for new technologies to enable revolutionary new products and to improve performance and manufacturing of existing ones. This session will highlight technologies being developed that are in the early stages commercialization.

Networking Session

The Networking Session is a forum for people interested in showcasing areas of interest in which collaboration is actively being sought. This collaboration may take the form of direct industrial support, joint research proposals, internships, etc. As such, the session's presentations are intended to be far less formal and not expected to be as fully developed as presentations at the technical sessions.

Tabletop Exhibits

Companies offering products or services that may be of interest to the attendees are encouraged to participate at this Symposium. In past Symposia exhibitors have included representatives from companies offering specialized mixers, dies, coating applicators and other coating and drying and curing equipment; companies offering coating services (toll coaters); companies offering software that predict coating flows and film drying; and companies offering instrumentation useful in the coating and drying processes. The exhibit hall will be open every day the technical or special sessions are running and will be accessible during the scheduled breaks.

To Present a Technical Paper or Poster

Submission of papers will be handled through a web-based abstract submission system at the ISCST site (www.iscst.org). Alternatively, if you prefer, you may submit an abstract by email. If so, please submit the title, author's name and affiliation, and a 150-200 word abstract, to the Symposium Chair at wbkolb@mmm.com

To Present at the Networking Session

Submit: subject, author's name and affiliation and a 50 word description of the topic of interest to the ISCST website (www.iscst.org) or to wbkolb@mmm.com

Deadlines for Technical Presentations

March 15, 2012	150-200 Word Abstract Due (Electronic submission preferred)
May 1, 2012	Authors notified of Acceptance
July 1, 2012	Final Extended Abstracts Due

Deadline for Networking Session

August 15, 2012	Name, Affiliation and Topic
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Deadline for ISCST Awards

June 1, 2012	John A. Tallmadge Award
June 1, 2012	L.E. Scriven Young Investigator

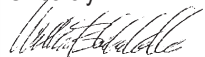
Dear Colleagues,

The ISCST Symposium provides a forum for scientists, engineers and researchers to discuss the latest developments in the application and solidification of thin liquid films. The Symposium features contributions from experts in both academia and industry on topics ranging from fundamental processing science to more applied research and development. The Symposium includes a broad range of coating process science and technology, and impacts many industries. The format is designed to provide mechanisms for the exchange of information and networking across industrial sectors and between academia and industry.

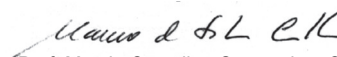
The 2012 Symposium will kick-off with a Plenary Session titled, *What It Takes to Commercialize an Innovation*. Speakers from major corporations, successful startups, government and academia are being invited to present case studies on the commercialization of breakthrough technologies and products. Two special technical sessions will highlight growing arenas for coating processing science. The first special session, *Mechanics of Printing*, will explore the fundamental aspects of web-based (roll-to-roll) printing processes. With continuing excitement in applying printing to non-traditional areas like electronics, and push for limits in printing resolution and uniformity, the need for solid fundamental understanding has never been greater. The second special session, *New and Emerging Coating Process Technologies*, will highlight technologies being developed for the manufacture of new materials that are in the early stages of commercialization.

We hope that you will join us for this exciting and informative event. Please visit our website www.iscst.org for up-to-date information on the program.

Sincerely



Dr. W. Blake Kolb, Symposium Chair
3M Company, St. Paul, MN 55144 USA
(651) 736-4334 • wbkolb@mmm.com



Prof. Marcio Carvalho, Symposium Co-Chair
Pontificia Universidade Catolica do Rio de Janeiro
mcs@puc-rio.br

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Mei Wen, Arkema Inc USA
Yukio Yamaguchi, University of Tokyo
Masato Yamamura, Kyushu Inst. of Tech.

ISCST Awards

www.iscst.org

John A. Tallmadge Award for Contributions to Coating Technology

This is the preeminent award for engineers and scientists in the international coating community. It recognizes an individual's significant contributions to the understanding or improvement of the technology of the coating of continuous webs. The award is presented biannually, in even numbered years.

Sponsored by: International Society of Coating Science and Technology, and AICHe.

Award: A plaque and \$1,000.

Previous Recipients of the John A. Tallmadge Award

1992 L. E. Scriven, Dept. of Chemical Engineering, Univ. of Minnesota
1994 E. B. Gutoff, Consultant
1996 J. E. Hens, retired, AGFA
1998 Kenneth J. Ruschak, Eastman Kodak Co., Rochester, NY
2000 Edward D. Cohen, retired, DuPont Fellow
2002 Terrence D. Blake, Kodak Ltd., Harrow, Middlesex, UK
2004 Brian G. Higgins, University of California, Davis
2006 Peter M. Schweizer, Polytype Converting, Switzerland
2008 Ta-jo Liu, National Tsing Hua University, Taiwan
2010 Ramon L. Cerro, University of Alabama, Huntsville, AL

L.E. Scriven Young Investigator Award

This award is given in recognition of outstanding sustained achievements or one-time breakthroughs in the area of continuous liquid film coating science and technology. Those nominated for this award must be 40 years old or younger. The award will be presented at the Symposium.

Sponsored by: International Society of Coating Science and Technology
Award: A plaque and \$500.

Past Recipients of the Young Investigator Award

1998 Cyrus Aidun, Institute of Paper Chemistry,
Georgia Institute of Technology-Atlanta
Dennis Coyle, General Electric Company, Niskayuna, NY
2000 Steven J. Weinstein, Eastman Kodak Co., Rochester, NY
2002 Andrew Clarke, Kodak Ltd., Harrow, Middlesex, UK
W. Blake Kolb, 3M Company, St. Paul, Minnesota
2004 Marcio D. Carvalho, Pontificia Universidade
Catolica do Rio de Janeiro, Brazil
2006 Richard A. Cairncross, Drexel University, Philadelphia, PA
2008 Wilhelm Schabel, Karlsruhe University, Karlsruhe, Germany
2010 Satish Kumar, University of Minnesota, Twin Cities, MN
H. Pirouz Kavehpour, University of California, Los Angeles, CA

Nomination deadline for both ISCST awards: June 1, 2012.

Nomination procedure for both ISCST awards: Nominations must include a brief professional history of the nominee and specify how the nominee meets the criteria of the award. To submit a nomination, open and print the Tallmadge Award Nomination form, or the Young Investigator Award, (Adobe Acrobat PDF format) found at www.iscst.org, ISCST Awards & Honors. Complete the form, and e-mail it with the necessary attachments by June 1, 2012 to tjliu@che.nthu.edu.tw (Tallmadge Award) or mcs@puc-rio.br (Young Investigator Award).

Presentation: The two awards will be presented at the 16th International Coating Science and Technology Symposium, September 9-12, 2012 at the Loews Atlanta Hotel, Midtown Atlanta, Georgia.

Networking Session (Sunday afternoon, September 9)**Reception (Sunday evening)**

The opening reception will be held at the Loews rooftop courtyard. In addition to enjoying food and beverages, participants will have an opportunity to socialize prior to the start of the General Session of the Symposium on Monday morning.

Technical Sessions (All Day Monday and Tuesday and Morning Session on Wednesday)**Session subjects will depend on abstracts received.**

- Special Session on New and Emerging Coating Process Technologies
- Special Session on the Mechanics of Printing
- Coating Application Processes
- Solidification and Microstructure Development
- Discontinuous Coating Processes (spray, dip, gravure, spin, ink jet, etc.)
- Nanomaterial and Nanoscale Coatings
- Flow and Drying of Particulate Coatings
- Additional special topics (wetting, optical coatings, coating surfaces and structures and environmental issues in coating)

Poster Sessions

Poster sessions are planned for Monday and Tuesday after lunch. Posters will be on display throughout the Symposium.

Continuing Education Program

One short course will be held prior to the Symposium on Sunday, September 9, 2012.

**Precision Coating and Solidification
September 9, 2012**

Instructors: Prof. Marcio Carvalho (PUC - Rio);
Prof. Lorraine Francis (Univ. Minnesota);
Prof. Satish Kumar (Univ. Minnesota);
Wieslaw Suszynski (Univ. Minnesota);

- Introduction
- Liquid coating materials
- Wetting and Spreading
- Slot coating
- Tensioned web over slot coating
- Precision multilayer coating
- Visualization
- Drying
- Stress and defects

Go to www.iscst.org for up to date information**Location Information & Reservations**

ISCST 2012 will be held at the Loews Atlanta Hotel, located in Midtown Atlanta, Georgia.

To make a reservation, call the Loews Atlanta Hotel at 888-563-9736 or 404-745-5000 or go to the hotel information on the ISCST website for a direct link to the Symposium reservation page. Be sure to identify yourself as an attendee of the ISCST Symposium to receive the special rate of \$169, single and double occupancy, per night, plus tax. Reservations should be made by August 11, accepted on a space and rate available basis. You can reserve a room with a credit card or check (in U.S. dollars). A first night deposit is required at the time of reservation. Room reservations cancelled prior to 72 hours before arrival will receive a full refund of first nights deposit. No-shows will be charged the first night room deposit.

For more information about the Loews Atlanta Hotel go to <http://www.loewshotels.com/en/Atlanta-Hotel>

Tabletop Exhibits

This Symposium is expected to attract 200-300 engineers and scientists from the world's leading manufacturers of coated products and academic programs in coating science. It is an ideal opportunity for companies to reach individuals who improve and scale-up new coating processes, new coated products and those who are likely to do so in the future.

The Exhibit Hall will be open each day of the Symposium and will be located in the area where all scheduled breaks are held. The fee for exhibiting is \$1,095, which includes one registration fee. Your display will be a true tabletop exhibit in which all materials must fit safely on a 6 foot table.

Symposium Registration

The Symposium registration fee includes all sessions plus Sunday & Monday night reception, Monday, Tuesday & Wednesday continental breakfast and Monday and Tuesday lunch. The Sunday Short Course is not included in the Symposium registration fee.

Register online at www.iscst.org. You may also call Mr. Terry Gorka at 805-340-0608 to register over the phone. We'll be happy to hold a seat for you for a limited period until payment is received.

Registration (must be postmarked by August 13).....	\$745
Registration (postmarked after August 13).....	\$795
Additional Registrant from Same Company	less \$50
Student Registration	\$195
Faculty/Retiree Registration	\$495
Tabletop Exhibit (includes one registration fee).....	\$1,095

Short Course:

Precision Coating and Solidification	\$895
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E-mail Address Request

Important updated information will be sent out via e-mail. Please send your e-mail address to tgorka@thetiaragroup.com

For Information Contact:

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