# Polymer Valley News

The Newsletter of the Akron Section of the Society of Plastics Engineers
Our 47th Year of Education and Service to the Plastics Industry

# Newsletter Contents Meeting Announcement

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#### Costs, Schedules, Reservations

Member \$25.00 Member and One Guest \$40.00 Retiree \$20.00 Student \$10.00 New Members No Charge Cocktails Room 313 -- 5:30 p.m. Dinner 6:15 p.m. Tour LCI/presentation 7:00 p.m.

Call or email Cameron Fraser before noon, Oct. 12 and specify dietary restrictions.

(330) 972-6008 T; (330) 258-2339 F cfraser@uakron.edu

### **Technical Meeting**

Monday, October 16, 2006 5:30 p.m.

### **Kent State Student Union**

Intersection of Summit St. & Campus Center Dr. *Kent, Ohio* (330) 672- 2554

Tour of Kent State Liquid Crystal Institute By Dr. Philip J. Bos Chemical Physics Professor, LCI Associate Director

The October meeting of the Akron Section of SPE will be held in Kent State University on Monday, October 16. Cocktails and dinner will be in Room 313 of the Student Union commencing at 5.30. This will be followed by an introduction to the Liquid Crystal Institute in the Samsung Auditorium of the LCI by Dr. Philip J.Bos, Associate Director of LCI and then a tour of the LCI.



See page 3 for Dr. Bos' biography

- ► EPSDIV TOPCON Oct. 23-24, 2006
- Next meeting Nov. 20, 2006
- ➤ Board meeting Oct. 4, 2006, 5:15 p.m., Polymer Eng. Center





This is Joe Pfeiffer, writing for John Woodside

I would like to thank all of our members that attended our September meeting. The presentation on several new polycarbonate based polymers was excellent from GE. We had a total of 41 members and students that attended! We actually had to add a table at the Martin Center. John Woodside thanked all who attended and stressed how these meetings are an excellent opportunity to expand our plastics education and network. Next one in October is at Kent State and will include a tour of the Liquid Crystal Institute.

Do not forget the TOPCON later in October as well if it is in your field of endeavor.

Lastly, our student chapter is quite active and we are very proud of them for their upcoming Plastic Awareness activity.

The Akron section of SPE has a lot to offer. I can say that because I have compared our section to many others. Unfortunately, many sections are struggling and the main topics at council meetings is centralization or combining several struggling sections into one stronger section.

Thanks to all of you for participating. I will think of you on the beaches of Hawaii. So till the next time, ALOHA!

Joe



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#### **Directions to Kent State Student Union**

Intersection of Summit St. & Campus Center Dr. Kent, Ohio (330) 672- 2554

http://imagine.kent.edu/directions/kent/building.asp?dir=ALL&building=1040

#### From I-76:

Take the Kent/Route 43 exit (exit 33) and proceed north to Route 261. Turn right (east) onto Route 261. Proceed ¼ mile to Campus Center Drive. Turn left and follow it to the stop sign. Turn left and stay on West Campus Center Drive. At the traffic light go straight (becomes Risman Drive). Park in the Student Center parking on the left. The Student Center is the brick, three-story, curved-shaped building in front of the parking lot. Enter through the doors where the building curves at the center of the building. Take the elevators, located behind the staircase and waterfall. The meeting room is Room 313, on the third floor of the Student Center.

#### From I-80 (Ohio Turnpike):

Use exit 187/13 (Streetsboro). After the toll booth, proceed straight (follow Ravenna sign) onto Route 14 traveling southeast, go past Route 303 to Route 43. Turn right (south) on Route 43 and continue south for approximately six miles until you come to the traffic light at the dead end at Haymaker Parkway in the city of Kent. Turn left (east) and follow to the traffic light at the intersection of Lincoln and Haymaker. Turn left onto Lincoln St and follow it to East Summit St. Turn left and at the third traffic light turn left onto Risman Drive. Park in the Student Center parking on the left. The Student Center is the brick, three-story, curvedshaped building in front of the parking lot. Enter through the doors where the building curves at the center of the building. Take the elevators, located behind the staircase and waterfall. The meeting room is Room 313.

#### Dr. Philip J. Bos Biography of Speaker

Dr. Philip J. Bos is Associate Director of the Liquid Crystal Institute and an Associate Professor in the Chemical Physics Interdisciplinary Program at Kent State University. He is the



inventor of the pi cell and an alignment method for SmC\* devices and holds a number of patents. His research interests include novel liquid crystal devices and applications.

Dr. Bos has been with the LCI since 1984 when he joined as Research Fellow. He was previously with Tektronix Inc. in the Display Research Department from 1979 to 1993 after graduating from Kent State with an MA and PhD in Physics.

Ph.D.Physics Kent State University May, 1978 M.A.Physics Kent State University Sept., 1974

B.A.Physics Hope College June, 1973

#### **Directions to to KSU Liquid Crystal Institute**

Samsung Auditorium,
Dr. Bos presentation and
LCI tour

If walking, exit the Student Center through the main doors and cross the Student Center Plaza, passing the 12-story KSU Library. Walk down the corridor passing, Williams, Smith, Cunningham, Math and Computer Science, and Nursing Halls. The LCI is the last building on this corridor. Enter the LCI in the underpass between the two wings of the building. Enter through the doors on the left. The Samsung Auditorium is through doors on your immediate right, before the restrooms.

If driving, you must get a temporary R-5 parking permit. I assume these will be handed out before the dinner concludes. From the Student Center parking lot, exit the parking lot turning right onto Risman Drive. At the traffic light at East Summit St. turn left and follow to the first light and make a left (the LCI Building is straight ahead). Facing the LCI building, park on the left side of the building in the parking spaces marked R-5. Enter the LCI in the underpass between the two wings of the building. Enter through the doors on the left. The Samsung Auditorium is through doors on your immediate right, before the restrooms.



#### SOCIETY OF PLASTICS ENGINEERS, INC.

### **Announcement and Call For Papers**

# **ANTEC 2007**

# Sponsored By: The SPE Thermoplastic Elastomer SIG

We are looking for papers on thermoplastic elastomers for the annual technical conference for the SPE technical community. Subject areas are new chemistry, processing or applications for TPEs.

May 6-10, 2007 Cincinnati, Ohio

**Reply to: Joe Pfeiffer** 

jepfeiffer@santoprene.com

phone 330-849-5097 fax 330-849-5589

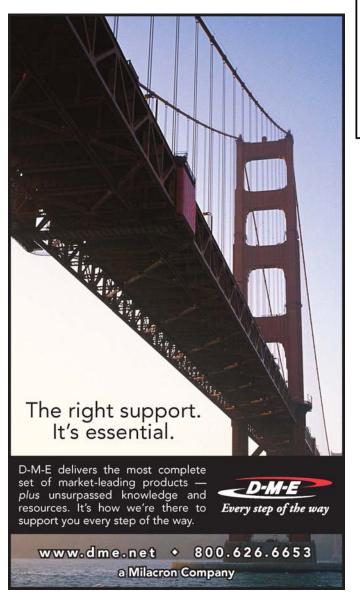
For information: <a href="http://www.4spe.org/conf/antec07/submissions.php">http://www.4spe.org/conf/antec07/submissions.php</a>

ALL ANTEC 2007 AUTHORS MUST REGISTER AND UPLOAD THEIR ABSTRACTS AND PAPERS VIA THIS WEBSITE!

http://antec2007.abstractcentral.com/

Abstract Deadline: October 16, 2006 Completed Paper Deadline: December 4, 2006

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# SOCIETY OF PLASTICS ENGINEERS

# **Call For Papers**

8<sup>th</sup> Thermoplastic Elastomers Topical Conference™ 2007



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#### Presenting the latest in:

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- Advances in Processing Technologies

The TPE SIG and the Akron Section of SPE invite the submission of papers for presentation at the  $8^{th}$  TPE TOPCON 2007.

Please submit paper title, abstract, author/presenter name and affiliation to:

Iani Manas, Eaton Corp., 1395 Danner Drive Aurora,OH 44202

Tel: 330-995-1618 Fax: 330-995-1699

e-mail: ianimanas@eaton.com

**Abstract Deadline: January 31, 2007** Completed Paper Deadline: June 1, 2007

#### **Technical Questions About Plastics**

We are including a special button on our Akron Section web site for you to ask technical questions relating to plastics. The board will answer these questions using the network of each other, Akron University resources, or even SPE experts. We will print your question and answer in the following newsletters (with your permission, of course). So, watch for the button at www.akronspe.org:

Are you an SPE member looking for technical assistance?
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#### **Akron Section SPE Past Presidents**

46 years of excellence



١				
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	1961-1962	Foster J. Young	1984-1985	Anthony F. Dean, Jr.
	1962-1963	Dickson L. Stoker, III	1985-1986	Gene Buser
	1963-1964	Edward L. Hillier	1986-1987	Harry J. Barth
	1964-1965	John R. Russell	1987-1988	Judith A. Fallon
	1965-1966	John R. Russell	1988-1989	William E. Tosco
	1966-1967	Clyde H. Jones	1989-1990	Robert Wegelin
	1967-1968	Alan Corry, Jr.	1990-1991	Geraldine R. Stromquist
	1968-1969	Bernard M. Saffian	1991-1992	Spencer Keiser
	1969-1970	Harold R. Schick	1992-1993	Robert Wegelin
	1970-1971	Robert G. Hills	1993-1994	Tony Dean
	1971-1972	John J. Satterfield	1994-1995	Wayne Decamp
	1972-1973	Alexis M. Gross	1995-1996	Melanie Stewart
	1973-1974	Francis J. Maurer	1996-1997	Kevin Hershfield
	1974-1975	Leverett A. Anderson, Jr.	1997-1998	Dave Schultz
	1975-1976	Robert M. Hershey	1998-1999	John Raab
	1976-1977	Richard L. Fleshman	1999-2000	Gary Taylor
	1977-1978	David Curtis	2000-2001	Kevin Malpass
	1978-1979	John A. Zelek, Jr.	2001-2002	Ken Sharp
	1979-1980	Gerald W. Whitnable	2002-2003	Joe Pfeiffer
	1980-1981	Kathleen N. Bechter	2003-2004	Robert Wegelin
	1981-1982	Victor E. Giuffrida	2004-2005	Joe Mattingly
			2005-2006	Lloyd Goettler

### **Programs for 2006 / 2007**

Sept. 18	Latest Advances in Engineering Thermoplastics Bob Moran, GE Plastics Martin Center	Jan. 22	Mini-Symposium: Is PVC Dying? A.Schulman; PolyOne; Allan Marshall, Omnova; Kenneth Abate, Veka, Inc Guy's Party Center
Oct. 16	Presentation and Tour of Kent		
	State Liquid Crystal Institute	Feb. 19	The Future of Nanocomposites
	Dr. Philip J. Bos, LCI Associate Dir.		Lloyd Goettler, Akron U
	Kent State Student Union		Martin Center
Oct. 23-24	EPSDIV / Akron SPE	Mar. 19	Molders Night –
	TOPCON: Recent Advances in		Global Competitiveness
	Organic and Polymer Display		Bob Beesley, Design Molded Prod.;
	Technologies		Rich Esterle, Esterle Mold & Mach.;
	Akron University		Jerry Graf, DLH Ind.
			Guy's Party Center
Nov. 20	Latest Advances in Twin-Screw		
	Compounding Extruders	Apr. 16	<b>Bio-Engineering with Polymers</b>
	Paul Andersen, Coperion		Tony Walder, Noveon Thermedics;
	Guy's Party Center		Larry Johnson, Foster;
			Judit Puskas, Akron U
Dec. 14	Holiday Party (bring significant other)		Martin Center
	Christmas Special - For the Ladies;		
	Deck the Halls; Madrigals	May 21	Awards Night TBA
	Stan Hywet		
		May 18	Spring Golf Outing - with Cleveland Barberton Brookside CC



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### **Membership Report – August, 2006**

•Akron had 2 new members join in August. Our membership number is at **393.** See list for new members. We also had one transfer out.

**Membership News from National** 

•National news, total membership is at 19062. Variance from May is 245.

There seems to be an issue with numerous bad email addresses. I will try to address this with national.

Membership chair, Joe Mattingly

<u>New Members</u> - Say "hello and thanks for joining" if you know the following people.

August, 2006 William J Bryant Firestone Polymers

Neelakanadan Chandrasekaran University of Akron



### Akron Polymer Training Center

Provides training classes for plastic and rubber processors taught by University of Akron faculty and industry professionals. Visit our website at **www2.uakron.edu/aptc** for a complete list of our current course offerings.

#### **Customized Development and Delivery**

The Akron Polymer Training Center also specializes in customized training developed specifically for your employees. Depending on your company's particular needs, our courses can be taught on site at your location, or at our state-of-the-art facility on the campus of The University of Akron.

Our programs are designed to enhance on-the-job effectiveness for all professionals working in the polymer field. If you are experiencing difficulty with polymer-related design or processing problems, contact us. Our reliable and dedicated staff will work with your team to develop a training strategy guaranteed to produce results. Contact Tayba Tahir by phone at **330.972.8661** or email Tayba at **tahir@uakron.edu**. If you don't see what you need, no problem! We have the resources to solve even the most vexing polymer processing and design issues.



### Minutes of Board Meeting – September 11, 2006

Call to Order: 5:30 PM at Polymer Engineering and Academic Center

**Present:** John Woodside, Dave Schultz, Lloyd Goettler, Cameron Fraser, Vivian Malpass, Hermant Thakkar, Joe Mattingly, Bob Wegelin, Gary Taylor, Kaan Gunes, Sylvain Seif, Joe Pfeiffer and Tony Dean Absent - Josh Wong, Sadhan Jana, Kevin Malpass, Reza Sadeghi, Amruth Puttarudraiah

Minutes: August minutes approved.

Added items to Agenda: None.

**President:** John Woodside introduced the Student Chapter President, Sylvain Seif to the 2006-07 Board.

**Past President:** Lloyd once again mentioned that Awards Committee has noted that a Technical Q and A section needs to be more prevalent in Newsletter. Joe Pfeiffer suggested that Newsletter should trial a Forum for Questions of Technical nature, Board added that website may also be reviewed for Q and A Section for future.

**Treasurer:** Gary Taylor reports that we are in good shape. Provided Budget and update from July on checking account. Budget available for Pinnacle Award. Taxes soon due for Section.

**Secretary:** Suggested Board Review of 20/20 Program to bring in new members and company support. Visit should include this list of 20 Reasons along with List of Action items that a company can do. Viv to forward list of 20 Reasons to Board, request Action items from Board Members. Plan to review and revise top 20 potential companies to narrow to 10 Targets for 2006/07.

**Awards:** Joe reports that he has gotten pictures unframed from local studio- given to Cameron to frame and place on wall in Polymer Science Building. Winner for 2006 Bob Digiantonio in process of getting his picture taken.

**Student Chapter:** New PESO President is Sylvain Seif- Chase Award--PESO has set up Polymer Awareness Day for October 26. The initial day for 2006 will include- Stow-Munroe Falls, Copley, Firestone and East approximately 40 high school students will participate. Projects will involve nanocomposites, water soluble polymers, recycling, etc. Plan to have Industry Speakers-Goodyear, Lockheed Martin etc. Need to expand to other schools in Summit and Medina County for future. Send projects to Board for Review and eventually add to website. Student chapter must keep good financial records.

**Newsletter:** Joe Pfeiffer needs Newsletter items by September 14 or 15. Kaan Gunes will handle the technical content of the newsletter in the 2006/2007 year. Need to modify Newsletter on contact information for Meetings.

**Membership:** Joe Mattingly reported that the section membership stands at 398. Joe reports got many returns on BAD e-mail info. Joe M and Joe P to compare lists- list serve vs e-mail from Intl.

**Councilor's Report:** Joe Pfeiffer new Councilor will not be present for first meeting- Pittsburgh. Viv will attend as Proxy.

### Minutes of Board Meeting – September 11, 2006 (cont.)

**EPSDIV TOPCON 2006:** On Track. The conference is a go. Need more attendees.

**TPE TOPCON 2007:** Vivian Malpass reported that the TOPCON is on schedule.

**Education Committee:** Hemant Thakkar said that all details have been discussed with Bob W- Education Foundation for 1st portion of college school year. Hemant also would like to have all Essay information sent soon along with details out for local Science Fairs- need to inform Co-Ordinates that we will provide monies for Plastic/Polymer oriented experiments. Possibly add to Experiments at website?? Need new Committee Members to help out. Reza Sadeghi have potential interest??

**Education Foundation:** Bob reports that he in process of doing a review of the stock holdings. Education Foundation may request funds from Akron SPE. Note: Omnova plans to contribute to Fund.

**Advertising:** Joe Mattingly reports that we have 5 Sponsors on for Newsletter for 2006/07. Letters have been sent out to all past and potential new Advertisers.

**Public Interest / Website:** Tony Dean reported all sites at website have been updated and that he will continue to have the Akron Beacon Journal publish Akron SPE events. Tony Dean still looking into ABJ E-News site. Website:

A. calendar for 2006/07

B. Investigate possible awards for website

- Tony Dean to do:

**Program:** Vivian Malpass reports he has assembled a complete Program for the coming year. Viv reports Program and Speakers set for - Sept. 18- GE Plastics--Advances- Engineering Thermoplastics at Martin Center, Oct. 16th- Liquid Crystal—Kent State, Oct. 23-24- TOPCON EPSDIV, Nov 20- Twin Screw-Coperion. Dec. 14- Holiday Event being planned for Stan Hywet- details to follow- Buffet with Cash Bar.

Fall Golf: No report.

**Spring Golf:** No report.

**House:** Cameron Fraser will also take the reservations for 2006/2007 regular meetings. Requested that all be sent by e-mail/Fax. Plan to look at other locations for Awards-Hilton, Sheraton and Inventure Place.

**ACESS:** Joe Mattingly and Lloyd Goettler will be the Akron Section SPE representatives to ACESS for the 2006/2007 year. John Woodside will attend as the SPE President.

**20/20 Program:** The Past Presidents will implement the proposed 20/20 Program. Viv will spearhead the 20/20 Program with first company set. Lloyd and David will assist with visit and preparation of documents to have available during visit to include- 20 Reasons to Belong, Action Items that can be done by target companies plus Akron Section- Web Page for contact and International Membership forms.

**Old Business:** Nothing to report.

## Minutes of Board Meeting – September 11, 2006 (cont.)

#### **New Business:**

Viv reports that the Plastic Pioneers plans to possibly provide funding to a very worthwhile group of Teachers High and Middle school- known as Polymer Ambassadors- US basis. This is the flagship group from an Intersociety Education Council- IPEC. Akron Section may also like to help provide funding. Viv to forward the Activity Report to all Board Members.

Training Board Members- Sept 27---Tricia McKnight- Intl SPE has agreed to come to Akron- Polymer Engineering and Academic Center to put on Training for current Board Members. Joe Pfeiffer took part in Chicago- felt was EXCELLENT...John Woodside encourages ALL Board Members to attend.

Rubber Div- ACS- Ed Miller has inform Lloyd Goettler that they would be willing to hold a joint TPE Conference in future.

**Closing Comments:** Next board meeting will be held at Polymer Engineering Center-October, 4 at 5:15 PM. Adjourned at 7:00 PM.





The University of Akron

# The University of Akron Institute of Polymer Engineering

#### **Polymer Processing and Testing Services**

Don't want to invest in expensive equipment at this time? Don't know what equipment is best? Only need the use of the equipment for a short period of time?

Perhaps the best answer to these questions is to contract our polymer processing and testing services.

UA's Institute of Polymer Engineering works with all types of clients in the polymer industry, large companies and small firms, well-established businesses and start-ups. Companies turn to the Institute for assistance because they do not have the capabilities (equipment or personnel) to conduct their own research and testing.

The Institute of Polymer Engineering has a wide variety of specialized equipment needed for polymer processing, characterization, analysis and testing. Some of that equipment is listed here below.

To further discuss your needs, please contact Dr Lloyd Goettler at (330) 972-7467 lagoett@uakron.edu or Cameron Fraser at (330) 972-6008 cfraser@uakron.edu

#### Analysis and Testing

- x-ray
- scanning electron microscopy
- atomic force microscopy
- optical microscopy
- laser microscopy
- TGA
- DSC
- FT-IR
- DMA
- APA
- stress strain testing
- rheology
- biaxial stretching

#### Polymer Processing

- single-screw extruding
- twin-screw extruding
- film casting
- film blowing
- fiber spinning
- injection molding
- · injection molarity
- compression molding
- vacuum molding
- blow molding
- compounding

#### Sample Preparation

- · microtoming
- vacuum drying
- sputter coating
- particle size reducing



#### **Councilor's Corner**

I will be your councilor for the next 3 years. There is a meeting of all SPE councilors coming up in late September. Unfortunately, I will be in Hawaii on a much needed vacation. The former councilor, Vivian Malpass, will be my proxy. I am sure Viv will participate heavily and take good notes. I will generate a report based on his notes. Got any issues you want us to bring up and discuss.? Just send me an email at jepfeiffer@santoprene.com and I will make sure we address it.

Joe Pfeiffer





### **News from Student Chapter**

The Student Chapter of SPE Akron Section is currently working on the first SPE "Plastics Awareness Day" which will be held at the Department of Polymer Engineering at UAkron. Students from four different local high schools, as well as high school students working with UAkron polymer science faculty members, will participate in this event. The event will include a trivia quiz, which I (president of the SPE student chapter at UAkron) and my nine SPE board members are preparing questions for. We are planning to send out preparatory material, such as a Schaum's outline for polymers or well-known website sources, to the high schools so everyone will have an equal opportunity to win prizes. Tours of our laboratory facilities will be hosted by UAkron graduate students on that day, in which demonstrations on different processing equipment will be made available in an attempt to show students the opportunities and needs in the polymer industry and to enhance their education on how polymers are manufactured and tested, so that hopefully one day more individuals can decide to join the polymer programs here at UAkron. A list of some of the projects which will be provided to the students will be posted on the SPE website. The students have 6 weeks to complete the projects, and will present them at the science fair on the day of the event. The students may also wish to write polymer-related essays for the essay competition. Monetary prizes will be given out at the event.

Other things that the SPE student chapter is currently working on include updating our resume book and inviting a speaker from the Career Management Office at UAkron to speak to us about job seeking skills and resume writing skills. Also, we are trying to organize a tour of a local polymer industry for all polymer engineering graduate students to take part in. Finally, we will have more extracurricular activities such as bowling nights, movie nights and paintball shooting in the upcoming month.

Sylvain Seif - SPE Student Chapter President at UAkron

#### **Akron Section Board of Directors**

John Woodside 216-533-1324 T Everlight USA, Inc. 216-741-6883 F President/Chair johnwoodside@ameritech.net

Vivian Malpass 330-342-1120 T Tek-Mark International 330-342-1134 F President/Chair-elect. vivian.malpass@tek-mark.com VP/Chair, Conf. TOPCON 2007, Program

Dave Schultz 330-798-9300 x86535 T Harwick Standard Dist. Corp. 330-798-9328 F schultzd@harwickstandard.com Secretary

Gary Taylor 330-336-6621 T Myers Wadsworth 330-334-7100 F Treasurer gtaylor@po.akro-mils.com

Joe Pfeiffer 330-849-5097 T Advanced Elastomer Systems 330-849-5589 F Councilor, Newsletter Editor, jepfeiffer@santoprene.com Communications

Lloyd Goettler 330-666-5180 T Retired goet30@aol.com

Past-President

Joe Mattingly 330-929-4213 x1274 T Americhem. Inc. 330-929-4144 F Prior Past-President/Chair, imattingly@americhem.com

Membership, Newsletter Adv.

Svlvain Seif 330-972-5828 T U Akron Polymer Engineering 330-258-2339 F Student Chapter President sss14@uakron.edu

330-630-7107 T Amruth Puttarudraiah A Schulman 330-630-3349 F Director, Awards amruth@aschulman.com

Bob Wegelin 330-849-5179 T Advanced Elastomer Systems 330-849-5589 F Director, Spring Golf, robert.wegelin@santoprene.com

**Education Foundation** 

Kevin Malpass 330-490-4743 T Diebold, Inc. 330-490-4788 F Director malpask@diebold.com

Sadhan Jana 330-972-8293 T U Akron Polymer Engineering 330-258-2339 F Director, Student Chapter Advisor janas@uakron.edu

Hemant Thakkar 330-794-6600 T 330-794-6610 F ARDL Director, Education hemant thakkar@ardl.com

330-972-6008 T Cameron Fraser U Akron Polymer Engineering 330-258-2339 F Director, House cfraser@uakron.edu

Tony Dean 330-929-9916 T Retired - Director, Public Interest. francis@neo.rr.com

Website Master

330-972-8275 T Josh Wong U Akron Polymer Engineering 330-972-6027 F Director, Conference TOPCON 2006 swong@uakron.edu

#### Contacts at SPE INTERNATIONAL

14 Fairfield Drive P.O. Box 403 Brookfield, CT 06804-0403

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# **EPS Division TopCon 2006 Polymer Display Technologies**



The Society of Plastics Engineers' (SPE) Engineering Properties & Structures Division is providing a complete conference program that appeals to every aspect of the industry (see link below)

Keynote Speakers bringing the latest in research and industry in display technologies Technical discussions include emphasis on Molecular and Polymer light emitting materials and liquid crystal polymers

Leaders in the Industry will present original, non-commercial papers and presentations on recent advances and significant work in display technologies (see advance program on next page)

October 23 – 24, 2006 University of Akron Akron, Ohio

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#### Abstracts are being accepted. Please submit abstracts to:

Prof. Lynn Loo, Technical Program Chair

Department of Chemical Engineering, University of Texas, Austin

CPE 4.422, C0400, Austin, TX 78712

Tel: 512-471-6300, Fax: 512-471-7060, Email: lloo@che.utexas.edu

#### Registration http://www.4spe.org/conf/epsdiv06/0610epsdiv.php

SPE members advanced	\$200	Nonmembers advanced	\$250
SPE members on-site	\$300	Nonmembers on-site	\$350
		Students	\$ 25

#### **Conference Hotels**

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# **TOPCON 2006:** Recent Advances in Organic and Polymer Display Technologies



Photo courtesy of the University of Akron

#### **Engineering Properties and Structure Division**

Akron, Ohio October 23 and 24, 2006

The University of Akron Student Union ~ Ballroom A

~ Program ~

## TOPCON 2006: Recent Advances in Organic and Polymer Display Technologies

#### Engineering Properties and Structure Division

Monday, October 23, 2006		Tuesday, October 24, 2006		
8:40 a.m. Introduction and Remarks		OLEDs and Liquid Crystal Displays		
8:45 a.m. Plenary	Welcoming Remarks - Provost Elizabeth Stroble, University of Akron	9:00 a.m.	"Enabling Large-Area OLED TVs with High Efficiency Phosphorescent OLEDS"	
9:00 a.m.	"Progress in Organic Light Emitting Diodes"  Ching Tang, University of Rochester		Michael Lu, Universal Display Corporation	
Materials Considerations – Design Rules for Synthesis  10:00 a.m. "Electroactive Molecules and Polymers for Use in LEDS and PVs"  Mary E. Galvin, Air Products		9:45 a.m.	"Organic Polarized Light-Emitting Diodes Using Monodisperse Glassy-Nematic Oligofluorenes" Shaw Chen, University of Rochester	
		10:30 a.m.	Break	
10:45 a.m.	Break	11:00 a.m.	"The Use of Polymers in Liquid Crystal Display Devices"  Shin Woong Kang, Kent State University	
11:15 a.m.	"Polymer Films for Liquid Crystal Display Applications" Stephen Cheng, University of Akron	11:45 a.m.	"Enhancing the Durability of Polarizers for Liquid Crystal Displays Under Environmental Stress" Timothy Schunk, Eastman Kodak Company	
12:00 p.m.	Lunch (on your own)	12:45 p.m.	Lunch (on your own)	
1:30 p.m. "Dye-Dispersed Polymer Electrophosphorescent Devices for Solid-State Lighting" Franky So, University of Florida  Patterning, Processing and Fabrication  2:15 p.m. "Vapor and Solution Deposited OTFTs for Display Applications" Thomas N. Jackson, Pennsylvania State University		Physical Properties of Opto-Electrically Active Polymers		
		1:30 p.m.	"Real Time Monitoring of Linear and Non-Linear Stress Optical	
			Behavior in Uni and Biaxial Strethcing of Films with Novel True Stress-True Strain Birefringence Measurement Systems: Towards	
			Precision Processing of Polymers for Photonic Applications" Miko Cakmak, University of Akron	
3:00 p.m.	"Strategies for Improving Organic TFT Performance"  Lynn Loo, University of Texas at Austin	2:15 p.m.	"Dielectric Study of Polymer-Liquid Crystal Composites" Rajiv Manohar, Lucknow University, India	
		2:45 p.m.	Break	
3:30 p.m. 3:50 p.m.	Break  "Advances in Plexicore <sup>TM</sup> Technology for Printed Electronic Devices"  Shawn Williams, Plextronics, Inc.	3:15 p.m.	"Ultra-Flexible Electroluminescent Systems for Both Visible and Near Infrared Illumination" Patrick Kinlen, Crosslink	
4:20 p.m.	"Thermal Imprint Processing Technologies for the PCB Fabrication"  Myeong-Ho Hong, Samsung Electro-Mechanics Co.	3:45 p.m.	"The Barrier Problem in Flexible OLED Displays: a Modeling Approach"  Jehuda Greener, Eastman Kodak Company	
4:50 p.m.	Adjourn	4:15 p.m.	Adjourn	

#### **Akron Section Society of Plastics Engineers, Inc.**

The Akron Society of Plastics Engineers Educational Foundation operates exclusively for the benefit of and to carry out the purposes of the Akron Section of the Society of Plastics Engineers, Inc., which is to promote scientific and engineering knowledge relating to plastics by making educational scholarship grants to deserving students in the field of plastics engineering and related subjects. The Organization is supported primarily by contributions from the Akron Society of Plastics Engineers, the Society's individual members and corporations like yours affiliated with the polymer industry.

Since the inception in 1988, the Akron Society of Plastics Engineers Educational Foundation has grown to its current position through the hard work of many volunteers and the generosity of the local business community. Over the twelve years that the foundation has been in existence, it has provided scholarships to over 250 young men and women, totaling in excess of \$200,000 to assist them in furthering their careers in the polymer industry.

Our goal is to continue to grow the assets of the Foundation in order to increase the number of scholarships awarded as well as the size of the awards, and to do so in perpetuity. In doing this, we hope to be able to contribute to the supply of well-trained individuals to support the growth of the polymer industry in the Northeast Ohio area today and well into the future.

When the Foundation began its fund raising activities in 1988, we offered those companies who contributed \$30,000 a scholarship in their name. To date we have three named scholarships – *Omnova, Rubbermaid* and *Goodyear*. We are asking your company to help with the growth of well-trained individuals in the local polymer industry. Please check below:

[ ]	\$30,000 lump sum	[ ] \$10,000 / yr next 3 yrs.	[ ] \$5,000 / yr next 6 yrs.
[ ]	Other		

Our named scholarship donors are recognized at the annual Awards Night of the Akron Society of Plastics Engineers. We invite you to present your donation at our Awards Night, which will be scheduled in May.

We are looking forward to your support of this very worthwhile cause by your fine company. Please contact me at 330-849-5179 or e-mail at robert.wegelin@santoprene.com with any questions. Thank you for your consideration.

Sincerely,
Bob Wegelin, Chairman
Akron Section Society of Plastics Engineers, Education Foundation Committee

# SPE MEMBER BENEFITS GUIDE

		BENEFIT	DESCRIPTION	WEBSITE LINK	)//
S	NETWORKING	Business Networking Resources Local Section Affiliation Online Membership Directory Technical Affiliation	Connect to industry experts  Network with members locally in over 75 countries  Unlimited access provides the link to fellow members  24 Divisions represent major industry specialties	www.4spe.org/cc www.4spe.org/communities/sections www.4spe.org/membercenter www.4spe.org/communities/divisions	®
MEMBERS	MEDIA	Newsletters  Plastics Engineering (PE)  SPE Online  Tech Focus	News & events about specific local & technical affiliations The official monthly publication of SPE Your 24/7 source for Society information Monthly electronic newsletter offering society & industry news	www.4spe.org/communities/newsletters www.4spe.org/pub www.4spe.org www.4spe.org/membercenter	
FREE TO	TECHNICAL	Online Technical Library Message Forums Special Interest Groups SPE Journals	Searchable database of technical articles & conference papers Online question & answer forum Emerging areas not currently covered by technical Divisions Read abstracts from our three technical journals	www.4spe.org/membercenter www.askpip.com www.4spe.org/communities/divisions/#sig www.4spe.org/pub/journal	
	CAREER	American Management Association Awards Leadership Development Online Career Development Professional Recognition Scholarships & Grants Student Benefits Unemployment Services	Through a partner alliance, access AMA's educational resources Outstanding contributions recognized The opportunity to improve professionally & personally Career enrichment, job openings & resume database Distinguished grades of membership recognize accomplishments Awarded by The SPE Foundation Over 100 Student Chapters in nine countries Benefits for the unemployed member	www.4spe.org/membercenter www.4spe.org/awards www.4spe.org/communities/leadership www.4spe.org/membercenter www.4spe.org/membercenter www.4spe.org/foundation www.4spe.org/membercenter www.4spe.org/membercenter	
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# WHY JOIN ?

It has never been more important to be a member of your professional society than now, in the current climate of change and volatility in the plastics industry. Now, more than ever, the information you access and the personal networks you create can and will directly impact your future and your career.

# Active membership in SPE:

- keeps you current
- keeps you informed
- keeps you connected

The question really isn't "why join?" but

WHY NOT?



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company/college:	Job Function:   Gender:   Choose only one   Gender:   Gender:	
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