

News



The Society of Plastics Engineers

ENGINEERING PROPERTIES
& STRUCTURE DIVISION

March 2010

Chairperson's Report

“This is the time for hope and prosperity”



Chairperson Sadhan Jana

Greetings from snowy Akron to all our members! I hope all of you are keeping in good health and spirit. This is the time for hope and prosperity. First, let me share some good news. Our Division will be recognized at ANTEC 2010 with the 2009-2010 Silver Pinnacle Award. This award is given to divisions or sections that successfully create and deliver member value during the year. Sections and divisions are reviewed in four categories of achievement: organization, technical programming, membership and communication. I personally

thank chair-elect Pierre Moulinie for leading our effort in the Pinnacle award application process.

Election of Board Members

Our EPSDiv Board is currently seeking to elect several members. This affords us an opportunity to bring in new ideas and new initiatives. We are happy to see many active members of SPE on the ballot. Kindly continue to encourage your colleagues and friends working in polymer industry to become members of SPE and EPSDIV. The following web address provides detailed information about how to become a member of SPE:

www.4spe.org/membership.

Technical Program

Ashish Batra and Jason Lyons have put together an excellent program for ANTEC 2010. This includes a session dedicated to the memory of Professor Charles Beatty, a long time member of our EPS

Division and Board as well as mentor to many of us.

Please join us at all of our technical sessions during ANTEC 2010. I will look forward to greeting you in Orlando.

— Sadhan Jana



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In Memory of Professor Charles Beatty



Professor Charles Beatty

Professor Charles Beatty of the Department of Materials Science and Engineering, University of Florida, Gainesville, and (Chuck) to many of us, passed away on February 3, 2010 after an extended illness. For those of us who were close to him, the memory of his positive demeanor, bubbly enthusiasm, and friendly spirit continues to lives on.

Chuck's Universities

Chuck came to the University of Florida as a "Full Professor" in 1979. He had previously worked at Xerox Corporation as a fundamental scientist in polymers for eight years. A native of Indiana, he graduated with a BS in Chemical Engineering from Purdue University. He earned his MS in Macromolecular Science from Case Western Reserve University and a PhD in Polymer Science and Engineering from the University of Massachusetts, Amherst.

Honors

As an expert in polymer characterization and processing, Chuck established a world-class research group at the University of Florida, organized the student chapter of the Society of Plastics Engineers, and shared his passion for plastics with hundreds of students. His honors include SPE Fellow, SPE Education Award, 3M Materials Science Award, and Fellow of the Materials Institute, London. He was a member of the editorial advisory board of Polymer Engineering and Science and Polymer Journals. He authored 197 publications, 281 presentations, and 15 patents to his credit. He participated on the Board of Directors of EPSDIV (D26) for many years and also served as the Chairman and Councilor.

Chuck's Loves

Chuck shared his love and affection for his family, his passion for plastics, and his devotion to education with many of his students, friends, and colleagues. He loved football; especially his "Florida Gators" and he loved his "Pepsi." He will be missed by every associate who has worked and/or interacted with him. On behalf of my colleagues and friends at EPSDIV, and as Chuck's first graduate student with a feeling of deep personal loss, we extend our condolences to his wife Barbara and their children, Patrick, Tanya and Brian.

In memory of Professor Charles Beatty, EPSDIV will dedicate a technical session on Polymer Characterization at ANTEC 2010.

- Venkat
(Krishna Venkataswamy)

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Engineering Properties and Structure Division

BALLOT

Board of Directors Nominees

(Please Vote for Five of the Following Eight Candidates)

EMAIL your choices for Board members to Pierre Moulinie at pierre.moulinie@bayerbms.com or PRINT the ballot and send to Pierre Mouline, Bayer MaterialScience, LLC, 100 Bayer Road, Pittsburgh, PA 15205-9741, USA

Ashish Batra, Ph.D.

Ashish Batra graduated from Cornell University in 2005 with a PhD in Chemical Engineering. Prior to that, Ashish attended the Indian Institute of Technology, Bombay for his BS in Chemical Engineering. He joined the Dow Chemical Company in 2005 and is currently a Research Specialist for Dow Elastomers R&D in Freeport, Texas. His research interests are in the area of structure-property relationships of polymer networks, thermoplastic elastomers, gels and ionomers.

Kevin Kit, Ph.D.

Kevin Kit received his Ph.D. in Materials Science and Engineering from the University of Delaware in 1997. He is an Associate Professor in the Materials Science and Engineering Department at the University of Tennessee (Assistant from 1996-2003). Dr. Kit's research interests include mechanical behavior of polymers and composites, polymer processing, biosource materials, and electrospinning of nanofibers. He has been a member of SPE and the Engineering Properties & Structure Division since 1999 and has been faculty advisor for the University of Tennessee student SPE chapter since 2001. Dr. Kit has served EPSDIV by participating on the board for the last six years, reviewing papers submitted to ANTEC, and chairing ANTEC sessions. He organized the 2008 EPSDIV TOPCON ("New Approaches in Polymer Characterization Nanocomposites, Block Copolymers and other Nanostructured Materials") and served as EPSDIV co-TPC for ANTEC 2009. He is also an active member of The Fiber Society.

Daniel Liu, Ph.D.

Dr. Daniel Liu is currently a consultant in the Mechanics & Materials practice at Exponent, Inc. His expertise includes polymer, composite and nanocomposite technologies, polymer toughening and strengthening, fracture mechanisms, structure-property relationships, material evaluation and failure analysis. He has provided consulting services in the areas of composite rims, plastic pipes, medical devices, adhesives and coatings. Prior to joining Exponent, he also conducted research in development and performance of toughened epoxies, polyolefins, nanocomposites, biodegradable polymers, food packaging and electronic packaging materials. He has authored or co-authored 18 peer-reviewed journal papers and numerous conference technical papers. Daniel earned his B.S. in Polymer Materials and Engineering from Fudan University, China, his M.Phil. in Mechanical Engineering from Hong Kong University of Science and Technology, and his Ph.D. in Materials Science and Engineering from Texas A&M University. Daniel has been active with SPE since 2004. He has contributed to SPE ANTEC and Polyolefins conferences regularly, and has received best poster awards several times. He worked very closely with SPE South Texas Section and served as the president of SPE Texas A&M Chapter 2005-2006.

□ **Jason Lyons, Ph.D.**

While finishing his doctorate degree in Materials Engineering from Drexel University, Jason taught as an Adjunct Professor at Philadelphia University in the School of Engineering and Textiles. After several semesters, Jason decided that his interests were in industry and, consequently, began an industrial post-doc position at NovaComp, Inc. He worked on tri-block copolymers for selective permeation of hazardous chemicals. Upon successfully completing a project with the Army Research Labs, he began a career at Arkema Inc. and is currently the lead scientist in the area of impact modification of engineering resins. During his tenure, he has helped develop a variety of new impact modifiers and processing aids for resins such as polycarbonate, PBT, PET and their respective blends. Jason has been a member of SPE since 2007.

□ **Daniel Schmidt, Ph.D.**

Dr. Schmidt graduated with honors in 1988 from Carnegie Mellon University with a B.S. in Materials Science & Engineering and a B.S. in Chemistry. His Ph.D. in Materials Science & Engineering was earned at Cornell University (2003) under the direction of Prof. Emmanuel P. Giannelis on the subject of silicone nanocomposites. He served as a post-doc in the newly formed BASF group in Nobel Laureate Jean-Marie Lehn's Institut de Science et d'Ingénierie Supramoléculaires (ISIS) in Strasbourg France. There he developed techniques for making nanoporous materials now being scaled up under the tradename Isitect®. He joined Plastics Engineering/the Nanomanufacturing Center at UML in 2005. His work concerns polymer nanocomposites, sol-gel derived networks (responsive hydrogels, tissue engineering scaffolds), pre-ceramic polymers and sustainable materials (plant-derived plasticizers and epoxy resins). In 2009 he was honored as the first recipient of the Mark and Elisia Saab Endowed Professorship in Sustainable Plastics Engineering.

□ **Ashish M. Sukhadia, Ph.D.**

Dr. Ashish Sukhadia obtained his Bachelor of Engineering (B.E.) degree in chemical engineering (Ch.E.) from India in December 1985, his M.S. in Ch.E. from the University of Louisville, Kentucky in 1987 and his Ph.D. in Ch.E. from Virginia Tech in 1991. He joined Phillips Petroleum Company R&D organization located in Bartlesville, Oklahoma in June 1991 and was named Phillips Petroleum Company's Outstanding Young Scientist in 1997. He also was a team member on two additional internal company Technology Awards. He holds 15 US patents and has authored/co-authored 35 conference/journal publications to date. Ashish has been very active in the Society of Plastics Engineers (SPE) ANTEC Conferences since 1986 and his publications/presentations have been very well received. He is currently working for Chevron Phillips Chemical Company LP as the Global Polyethylene Applications Manager. His group at Chevron Phillips is responsible for Technical Service and Material/Application Development functions relating to blown and cast film, extrusion coating, pipe, blow-molding, rotational molding, sheet and geomembrane applications. He has been a member of SPE since 1986, is currently serving on the SPE EPSDIV Board as a regular Board Member and has also been a member of the Society of Rheology since 1996.

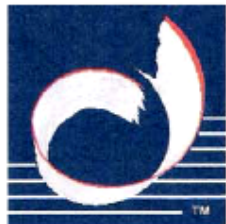
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By visiting: www.4spe.org/membership*

□ **John Torkelson, Ph.D.**

John Torkelson holds the title of Walter P. Murphy Professor in the Department of Chemical and Biological Engineering and the Department of Materials Science and Engineering at Northwestern University. Before beginning his career as a professor at Northwestern University in 1983, he obtained his B.S. and Ph.D. degrees in Chemical Engineering from the University of Wisconsin (1978) and the University of Minnesota (1983), respectively. While at Northwestern, John has served as Associate Dean for Graduate Studies and Research in the Engineering School from 1997 to 2002 and as the Director of the Materials Research Center from 2003 to 2006. He also served as Vice Chair and Chair of the Materials Engineering and Science Division of the American Institute of Chemical Engineers. During the 2010-2013 periods he will be serving as Vice Chair, Chair-elect, and Chair of the Division of Polymer Physics of the American Physical Society. John's current research interests include the following: nanoscale confinement effects on the properties of thin polymer films and polymer nanocomposites; gradient copolymers, including their synthesis, characterization of their novel properties, and application as interfacial agents; solid-state shear pulverization of polymer nanocomposites, hybrids and blends; and sustainable or green polymeric materials. Related to his research, John has been the recipient of several awards, including the Charles M. A. Stine Award (2004) from the Materials Engineering and Science Division of the American Institute of Chemical Engineers and the inaugural Polymer Physics Prize (2004) given by the Journal of Polymer Science Part B: Polymer Physics. He and members of his research group have won Best Paper Awards in 2004 and 2009 from two divisions of the Society of Plastics Engineers for papers submitted for and presented at SPE ANTEC meetings. In addition, John has twice been the recipient of the Teacher of the Year Award (1985 and 2008) and once the recipient of Advisor of the Year Award (1994) from the Engineering School at Northwestern University, and in 2009 he received the Northwestern University Alumni Association Excellence in Teaching Award.

□ **D.A. (Dave) Zumbrennen, Ph.D., P.E.**

Dave Zumbrennen, Warren H. Owen-Duke Energy Distinguished Professor at Clemson University, performs research focusing on polymer processing, process-structure-property relations for polymer blends and composites, and computational modeling of multi-component flows. His research has been featured on covers of major journals and also in industrial publications. He first proposed that structured plastic materials can be formed by chaotic advection. He and his students demonstrated the manufacture of several novel polymer blends and composites using a chaotic advection-based process. Dave is the inventor of smart blending machinery and their process control methods which are currently being adopted by industry. He is a recipient of the Presidential Faculty Fellow Award from the White House and National Science Foundation, is a registered professional engineer, and is a Fellow of the American Society of Mechanical Engineers.



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Financial Report

from July 1, 2009 to February 17, 2010



BALANCE as of July 1, 2009 **\$38,277.61**
 (cash, checking, savings, investments)

INCOME	ACTUAL
Interest	\$239.00
Award Sponsorships	\$1,000.00
ANTEC Sponsorships	\$5,000.00
Miscellaneous	\$41.59
TOTAL INCOME	\$9,625.05

EXPENSES	
Newsletter Production	\$535.00
Awards	\$862.61
Councilor Travel	\$1,617.55
BOD Travel	\$500.00
Teleconferences	\$277.34
TOTAL EXPENSES	\$3,792.50

CASH FLOW \$2,488.09

ENDING BALANCE as of 2/17/10 **\$40,765.70**

- Emmett Crawford, EPSDIV Treasurer 2009-2010

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ANTEC 2010

May 16-20, 2010

Orlando World Center Marriott Resort
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ANTEC 2010 TECHNICAL PROGRAM

Ashish Batra and Jason Lyons- Technical Program Chairs

A total of 37 podium papers; 5 interactive papers and 7 keynote papers will be part of the program that EPS-DIV has put together for ANTEC 2010. In addition, 7 papers from other divisions are being jointly shared in the sessions shown below.

- Alloys and Blends
- Polymer Analysis
- Materials Characterization
- Controlled Morphology
- Fibers and Membranes
- Advanced Energy (Joint with Advanced Energy)
- Structure Property Relationships in Nanocomposites I
- Structure Property Relationships in Nanocomposites II
- Bioplastics (Joint with Flexible Packaging)
- Structure Property Relationships in Polyolefins (Joint with Flexible Packaging)
- Interactive Session

Keynote papers will be delivered by

Prof. Chris Macosko
Controlled Morphology

Dr. Edward Peters
Alloys and Blends

David Klanecky
Fibers and Membranes

Prof. Ray Pearson
Structure property relationships
in Nanocomposites I

Prof. Lynden Archer
Advanced Energy

Prof. Chris Pastore
Bioplastics

Prof. Luyi Sun
Structure property relationships
in Nanocomposites II

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Councilor's Report

The first “virtual” Council meeting was held in February of this year. All electronic participants (with the exception of guests) were officially allowed to fully participate in the meeting and vote. There were four general topics for discussion at the council meeting:

- Membership Recruitment
- Member Value
- Conferencing
- Brand/Image

During the meeting the our discussions centered around the following proposed questions:

Is SPE the undisputed world leader in the development and distribution of technical content on plastics and polymers? Is SPE the professional home where each member can secure employment, expand their network, build their reputations, and develop their careers? Is SPE's Annual Technical Conference (ANTEC), providing an effective international forum for technical discussion, training, development, networking, communication, and partnering? Finally, can SPE be considered a one-stop value center for technical information, as well as providing non-technical benefits and communications?

The Council's goal this year is to encourage all SPE members to be ambassador for SPE! Therefore, we would like all of our membership to invite perspective members to join SPE. By sharing examples on how SPE directly impacts and benefits you, you partner in our “Member-get-a-Member” campaign effort.

- Brian Landes

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