

PMSE NEWS

Spring 2012

Polymeric Materials: Science and Engineering Division of the American Chemical Society

Greetings!

Welcome to the Spring issue of *PMSENews*! As mentioned in our last issue, we will be publishing this electronic newsletter every quarter, replacing the twice-yearly print version.

As usual, we will bring you news and items of interest to the PMSE community, including details of upcoming meetings, awards and recognition, book reviews and messages from the executive committee.

We want to hear from you on what else you'd like to see included in these newsletters - please email the [Editor](#) with your feedback.

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2012 Fall National ACS Meeting

Sunday, August 19
- Thursday, Aug 23, 2012

Philadelphia, PA, USA

[Preview PMSE Programming](#)

Meeting Content available online!

ACS Meeting Presentations are now available at the [ACS Learning Center](#) - a great resource for members who are not able to make it to the meetings!

Nominations Sought

Nominations are being sought for the following:

[AkzoNobel North America Science Award](#)

This award, which recognizes outstanding scientific contributions made in the fields of chemistry and material sciences and includes an honorarium of **\$75,000**, will be given for the first time in 2013.

Nominations for the award are being accepted through **June 22**. [Click here](#) for more information.

[PMSE Fellows](#)

The PMSE Fellows Program was established to honor a small percentage of PMSE



The Twelfth class of PMSE Fellows (From left to right: Jimmy Mays, Lloyd Robeson, Stephen Z D. Cheng and Abhimanyu O. Patil) were inducted at the San Diego ACS Meeting during the joint PMSE/POLY Awards Reception.



Galina Laufer from Texas A & M University receives the PMSE Graduate Student Research Award (Ford Travel grant)

2012 Akzo Nobel Award

members who have made significant contributions to the science and engineering of polymeric materials. Nominations are being accepted through October 15.

[Click here](#) for more information

PMSE Members elected to NAE

PMSE members, **Prof. Mary C. Boyce** of Massachusetts Institute of Technology, **Prof. Tobin J. Marks** of Northwestern University and **Prof. Samuel I. Stupp** of Northwestern University, were recently elected to the US National Academy of Engineering.

Congratulations!!

[Click here](#) for the official announcement.

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ACS Webinars

[ACS webinars](#)

- a free webinar series with subject experts and global



AkzoNobel Graduate Research winner Dr. Garret Miyake in his lab at Colorado State University

The winner of the 2012 AkzoNobel Award for Outstanding Graduate Research in Polymer Chemistry is Dr. Garret Miyake, who earned the Ph.D. in 2011 at Colorado State University under the mentorship of Prof. Eugene Chen. He also spent a summer doing research as an NSF-EAPSI Fellow with Prof. Eiji Yashima at the University of Nagoya, Japan. Dr. Miyake is now a postdoctoral researcher at California Institute of Technology with Prof. Robert Grubbs.

In his Ph.D. research Dr. Miyake accomplished the asymmetric coordination polymerization of achiral polar vinyl monomers into optically active, chiral vinyl polymers. He and a graduate student colleague prepared enantiomeric, cationic ansa-zirconocenium ester enolate catalysts via an 11-step synthesis and employed the catalysts to prepare optically active poly(N,N-diarylacrylamides). He also accomplished the first coordination addition polymerization of N,N-dialkylmethacrylamides and the first kinetic resolution of racemic methacrylamides by chiral metallocene catalysts. Dr. Miyake made important progress in the use of frustrated Lewis pair and organolanthanide catalysts for efficient polymerization of naturally renewable monomers into sustainable polymers that are alternatives for polymers based on petroleum. He also discovered the first kinetic resolution polymerization of racemic lactide using chiral organic catalysts. This method enables the synthesis of biomedical polymers such as polylactide with no trace of metal residues. Dr. Miyake's Ph.D. research appears in twelve papers in leading chemistry journals.

The award will be presented at a symposium in honor of Dr. Miyake at the American Chemical Society National Meeting in Philadelphia August 19-23, 2012 in the Division of Polymeric Materials Science and Engineering. The award is sponsored by the AkzoNobel Corporation and the ACS Divisions of Polymer Chemistry and Polymeric Materials Science and Engineering and is administered by PolyEd, the polymer education committee of the two divisions.

thought leaders in chemical sciences, management, and business on relevant professional issues.

Featured Events June 2012:
All held Thursdays from 2 - 3PM EDT

June 7: Startup Support - Who Provides What and at What Terms or Qualifications

June 14: Green Chemistry and Global Access to Medicines in Developing Countries

June 21: The Kitchen as Laboratory: Reflections on the Science of Food and Cooking

June 28: Flash, Sound, and Smoke - Advanced Fireworks - The Sequel

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We are still looking for Preprint volumes 1-29 (pre-1970 issues) for our

2012 Distinguished Service Award



Dr. Les Sperling receives the Distinguished Service Award at the Spring national ACS meeting in San Diego

Leslie (Les) H. Sperling, Prof. Emeritus, Lehigh University, Depts. of Chemical Engineering and Materials Science and Engineering is named the 2012 PMSE Distinguished Service Awardee. Les received the following degrees: B.S. Chem., U. Fla., 1954, M.S., Duke U. Chem., 1957, Ph.D., Chem., Duke U., 1959. His PhD thesis topic was "Solution properties of cellulose esters." He worked from Oct. 1958-June, 1965, at Buckeye Cellulose Corp. and had five publications on cellulose problems. From July 1965-July 1967, he was a Post Doc at Princeton University with Prof. Tobolsky. He moved to Lehigh University in 1967 and retired in 2002 as Professor of Chemical Engineering. In 1987, Les also was named Professor of Materials Science and Engineering. During the larger part of his time at Lehigh, he was highly active in research, most importantly, interpenetrating polymer networks, IPNs. Other topics included the mechanical and morphological aspects of polymers, especially failure mechanisms. This research was done with 55 graduate students, post-docs, and visiting scientists, resulting in 271 publications, 7 patents, and 15 books. The books include both edited works based on both Poly and PMSE symposia, and authored books. Most recently, he published the 4th edition of his textbook, "Introduction to Physical Polymer Science," with Wiley, 2004. While in retirement, he remains active, both in the ACS PMSE Division, and at Lehigh. In the ACS, he was also part of Lehigh U's Center for Polymer Science and Engineering, and served as Education Chairman.

His efforts at ACS have included the POLY/PMSE Polymer Education Committee and the ACS Nomenclature Committee, as well as serving PMSE as Member at Large. With the Poly Ed. Committee, his main activity has been interacting with chemistry book authors, trying to get them to include more polymer topics. Les was selected as a PMSE Fellow in 2002 and as an ACS Fellow in 2010. He presented a paper recently at the ACS History Division, which will be a published book in a few months. The topic: "The History of IPNs, traced back to 1910". He continues as an active reviewer of journal manuscripts and also continues to teach, when needed, at Lehigh.

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archive. Anyone with such volumes who is willing to donate them to the PMSE, please contact [Lisa Baugh](#). PMSE will reimburse shipping costs, and provide a form showing the value of the donated volumes is tax-deductible.

We want to hear from you!

Are you part of a PMSE student chapter? Share news of your chapter's activities with the PMSE community! [Contact us](#) with a writeup.

Become an NCW Coordinator

The ACS Member Communities, Volunteer Support office is beginning the process of recruiting coordinators for National Chemistry Week (NCW) 2012. NCW will take place October 21-27, 2012. The theme is "Nanotechnology: The Smallest BIG Idea in Science," focusing on the nanoscience contributions to the environment, energy, materials, and health. Please [sign up](#) to become or continue as NCW coordinator, or [click here](#) to learn more.

