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2017 POLY Chair Marc Hillmyer **University of Minnesota** 

### **Upcoming Dates**

July

Paul J. Flory **Award Deadline** 

July 15

**POLY Poster Award Deadline** 

July 25

**POLY Webinar** 

Aug 20

**ACS National** Meeting

Sept

**POLY Workshop Advances** in **Polyolefins** 



www.polyacs.org

## Chair's Address

I am honored to be the Chair of the Division of Polymer Chemistry (POLY) this year. I have been struck by the incredible dedication of all the folks that work toward the mission of POLY to promote all aspects of polymer chemistry. Have a look at our Organization Chart (http://www.polyacs.org/12.html) and reach out to our committed volunteers if you have input and suggestions for them as I'm sure they will be responsive. I am also quite pleased to have many new faces participating in POLY; I am confident that the next generation of polymer scientist that will be leading us going forward will do so with passion and enthusiasm.

This year I am focused on a few initiatives that I feel will improve the effectiveness of the division, better position us for the future, and bring more value to you, our membership. Below I highlight a few of these. Of course, I welcome your comments and advice, so please feel free to contact me directly (hillmyer@umn.edu).

**POLY Webinar**: Particular strengths of POLY include our outstanding programming at ACS National Meetings and our vibrant POLY workshops throughout the year. However, a majority of our members are unable to participate in these because of travel limitations. To bring value to you in a much more accessible way, we have instituted a POLY Webinar Series that allows our membership to



have easy access to outstanding POLY science. The first in the series just happened on 18 April 2017 and featured Prof. Yossef Elabd and Prof. Thomas Epps speaking on "The Power of Plastics: Polymerized Ionic Liquids and Nanostructured Polymers for Battery and Other Applications". They each gave excellent presentations that were followed by extensive Q&A. Over 250 people attended (and more than 500 had good intentions of attending!). This was quite a success, and I am really looking forward to the next installment on 25 July 2017. Mark your calendars and keep an eye out for the announcement!

**POLY Educational Activities:** The Division of Polymer Chemistry is dedicated to several educational activities at the K-12 and post secondary levels. Much of this comes through our joint committee with PMSE called POLYED. I am very happy to announce the POLY has appointed Prof. Philip Costanzo as the new co-chair to POLYED starting this year. Phil brings a great deal of energy for polymer science education to this endeavor. Moreover, at the last POLYED committee meeting in San Francisco, there were many more participants who had new suggestions and excellent input. If you would like to be involved in promoting polymer education through POLYED, please do not hesitate to contact me or Phil directly.

Support for Major POLY Awards: Generating external support for our major awards has become more and more challenging over the years. I am happy to announce that going forward the Division of Polymer Chemistry will provide financial support from our investments for our four major awards: The Herman F. Mark Award, The Carl S. Marvel Creative Polymer Chemistry Award, The Paul J. Flory Polymer Education Award, and the Industrial Polymer Scientist Award (Awards Web Page: http://www. polyacs.org/AWARDS.html). This new funding approach was fully supported by the POLY Executive Committee with input and strong support from the Industrial Advisory Board. This will allow our focus on fund raising for the division to shift toward more student-focused initiatives, programming, and

Please continue to support POLY through your membership. We are dedicated to promoting polymer chemistry at all levels and see a bright future for the division and the discipline.

Best regards, Marc A. Hillmyer

P.S. Check out the new look of our website (http://www.polyacs.org/Home)! Thanks to Christine Landry-Coltrain, Emily Pentzer, and Prathamesh Kharkar for all their efforts to make this happen!





Reception Sponsors

ACS Macro Letters

V3:0 MACROMOLECULES

Nacromolecules

The POLY/PMSE awards reception, held at the ACS National Meeting in San Francisco, CA, honored outstanding achievements by its members. 2017 POLY Chair, Marc Hillmyer, (University of Minnesota) had the pleasure of congratulating this year's award winners. This special event was sponsored by ACS Macro Letters, Macromolecules, and Biomacromolecules Macromolecules, and we very much appreciate their support.

**2017 Carl S. Marvel Creative Polymer Chemistry Award**: This award was established in 1980 to recognize and encourage accomplishments and/or innovation of unusual merit in the field of basic or applied polymer science by younger scientists. POLY was delighted to present this years award to Theresa Reineke (University of Minnesota). After a PhD from Michigan and a postdoc at Caltech, Theresa Reineke joined the faculty at Cincinnati. She served as an Associate Professor at Virginia Tech, before moving to her current position as Lloyd Reyerson Professor of Chemistry at Minnesota. She is known internationally for her pioneering work in the development of novel carbohydrate-based polymers for the cellular delivery of RNA and DNA, for creation of "theranostic" agents, and for the design of polymeric excipients for drug delivery.

**POLY Fellows Award:** This award recognizes excellence in all ways that POLY members advance our field of polymer science, either through scientific accomplishments, service to the profession, or both. The 2017 POLY members honored included: Joel Oxman (3M), Abhimanyu Patil (Exxon Mobil) Christoph Weder (Adolphe Merkle Institute), and Kathy Mitchem (POLY).

<u>Distinguished Service Awards</u>: The POLY Distinguished Awards honor individuals whose professional accomplishments have made a significant and lasting impact on the POLY Division. These individuals have not only met the goals set before them, but gone above and beyond expectations. Scott Iacono (U. S. Air Force Academy), received the 2017 Distinguished Service Award in recognition of "Outstanding Service as POLY Workshop Organizer and Program Chair". Lesia L. Pristas (POLY Business Office) was honored for her, "Outstanding Organization and Support of POLY Workshops and Industrial Advisory Board".

<u>Past Chair</u>: POLY honors the Past POLY Chairs for their outstanding leadership to the Division with a special plaque and lapel pin. Karl Haider (Covestro) received recognition for his 2016 servicee.

<u>Plenary Lecture</u>: The awards reception featured Plenary Lecturer, Juan De Pablo (University of Chicago), who presented, "*Directed Assembly of Hierarchical Polymeric Materials*". He received a plaque and honorarium for this special technical presentation.

POLY and PMSE also honored Kathryn Beers with a plaque for her outstanding service as 2017 Spring ACS Thematic Meeting Program Chair, where she organized the theme of Advanced Materials, Technologies, Systems and Processes.

In addition to these, several awards including Excellence in Undergraduate Polymer Research, Student Chapter Award, POLY IAB Travel Award, and the Outstanding Poster Awards were presented and are highlighted throughout this Newsletter.

The reception was extremely well attended by approximately 350 POLY and PMSE members and provided an opportunity to better recognize the excellence and community in both the POLY and PMSE Division. The evening successfully celebrated the individuals who are the present and future of Polymer Chemistry. Congratulations again to all!

## **Congratulations POLY Awardees**

POLY awards will be presented at the POLY/PMSE Awards Ceremony during the Washington, DC Fall ACS National Meeting on Wednesday, August 23, 2017. A symposium to honor several of these awardees will be held during the meeting. Additional details can be found in the ACS National Meeting Program this summer.

#### **Mark Award Series**

The Herman F. Mark



Edward Samulski University of North Carolina at Chapel Hill

Mark Senior Scholar



James Hedrick IBM Almaden Research Center

Mark Scholar



**Christopher Bowman** University of Colorado

**Mark Young Scholar** 



**Garret Miyake** University of Colorado

Sponsor: Elsevier, the publisher of the journal POLYMER

### POLY Special Service Award



John Pochan Graphenix Development, Inc. Sponsor: POLY

Overberger Award



Craig Hawker University of California, Santa Barbara

Henkel Outstanding Graduate Research in Polymer Chemistry



John W. Colson ClostraBio, Inc.

Sponsor: Henkel

### Young Industrial Polymer Scientist Award



Jeannette Garcia IBM Almaden Research Center

Sponsor: IAB

### Biomacromolecules/Macromolecules Young Investigator Award



Richard Hoogenboom Ghent University, Belgium



Rachel O'Reilly University of Warwick, UK

Sponsor: ACS Journals Biomacromolecules, Macromolecules, ACS Macro Letters and POLY

### **Graduate Student Travel Award**



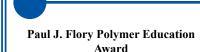
Charles Figg University of Florida



Jacob Lockhart
Vanderbilt University

Sponsor: IAB

### **Awards Deadlines**



Deadline – 7/1/17
Purpose: To recognize, encourage, and stimulate outstanding achievements by an individual or team in promoting undergraduate and/or graduate polymer education.

#### POLY Video Award

Deadline - 7/15/17

Purpose: To prepare young chemists to present their research and interact with a broad range of audiences, including more senior scientists and the general public. It should be understood that the presentation should be geared toward a lay person.

### **Industrial Polymer Scientist Award**

Deadline – 7/31/17

Purpose: To recognize outstanding industrial innovation and creativity in the application of Polymer Science, conducted by individual scientists or research teams.

### **Graduate Student Travel Award**

Deadline - Spring & Fall
See web for specific date. Typically 2-3
weeks before the ACS abstract deadline.
Sponsored by: Industrial Advisory Board
Purpose: Provide funding for polymer
graduate students to travel to National
ACS meetings to present the results of
their research.

### **Award Information**

www.polyacs.org/ AWARDS.html

or contact: POLY Business Office KATHYL@VT.EDU 540-231-3029

#### **Awards Co-Chairs**

Kenneth Carter Univ. of Massachusetts-Amherst Phone: 413-577-1416 krcarter@polysci.umass.edu

Stuart Rowan University of Chicago Phone: 773-702-4833 stuartrowan@uchicago.edu

## **Excellence in Polymer Graduate Research Symposium**

The 13th symposium on "Excellence in Polymer Graduate Research" took place at the national ACS meeting in San Francisco, California on April 3-4, 2017. The purpose of this symposium was to provide recognition to outstanding graduate students in polymer science and engineering, to foster networking and exposure, and to help develop the careers of future leaders in our field. We publicized this symposium via the POLY list server, POLY web page, and direct e-mail messages to over 100 departments that are active in polymer research. We requested that each department nominate one outstanding graduate student to speak on his or her original research in this special symposium. Each student filled out an application form and had a nominating letter from the research advisor and a letter from the department head.

This year we had 52 students in the symposium, with 34 oral presentations and 18 posters. This was the largest number since the symposium started in 1994. The oral sessions went very well. Despite the short time allotted to each speaker (20 minutes), the students were well prepared and stayed within the time limit. The presentations were well done. The poster session was also successful with a lot of traffic

and good discussions in front of the posters. For both oral and poster sessions, the scientific quality of the papers was generally high.

Dr. Allison Campbell, 2017 ACS President, visited the symposium at the end of the afternoon oral session on Monday to give an encouraging talk to the students. She was introduced by Prof. Marc Hillmyer, the 2017 POLY Chair. A group photo was taken with the students, Dr. Campbell and Prof. Hillmyer. As part of the recognition, each student received a certificate plus a cash award. In addition, Wiley (Journal of Polymer Science) presented book awards (worth \$250 each) to four students (Alice Chang, Apoorv Shanker, James Iocozzia, and Dibyendu Debnath) in recognition of outstanding papers.

This symposium was sponsored by the ACS Division of Polymer Chemistry (POLY), and cosponsored by Presidential Event (PRES), Young Chemists Committee (YCC), Division of Professional Relations (PROF), and Society Committee on Education (SOCED). The symposium had the generous support of POLY IAB, Tosoh, Wiley, and Dr. George Foster's Bequest.

### **Symposium Organizing Committee:**

H. N. Cheng, USDA Christine Landry-Coltrain, Eastman Kodak Company Christopher Ellison, University of Minnesota Timothy E. Long, Virginia Tech

### **Participants:**

Elizabeth Aisenbrey University of Colorado Ozlem Akdogan Eastern Michigan University Douglas Amato University of Southern Mississippi Ugo Arua Oklahoma State University Ryan Baumgartner University of Illinois at Urbana-Champaign William Bradley Iowa State University Karson Brooks University of Georgia Alice Chang California Institute of Technology Xiaosong Cao University of Notre Dame Yavuz Caydamli North Carolina State University Dibyendu Debnath University of Akron Benjamin Elling Stanford University Michael Forrester Iowa State University

Mitra Ganewatta University of South Carolina **Chad Greco** University of Delaware Tao Hong University of Tennessee - Knoxville Christopher Hornat Clemson University James Iocozzia Georgia Institute of Technology Yaming Jiang University of Minnesota Kailong Jin Northwestern University Wontae Joo University of Texas at Austin Pranav Kalelkar Georgia Institute of Technology Ken Kawamoto Massachusetts Institute of Technology Byungjin Koo Massachusetts Institute of Technology Austin Lane University of Texas at Austin Braden Leigh University of Iowa

**Amanda Leone** University of Michigan Michelle Leslie Case Western Reserve University Shu Liu Virginia Tech Xueguang Lu Northeastern University Lalit Mahajan University of Connecticut Jose Kenneth Mapas University of Buffalo (SUNY) Trevor Martin University of Washington Alekhya Nimmagadda University of South Florida Rvan Pearson University of Colorado Boulder Allison Pekkanen Virginia Tech Zhe Qiang University of Akron Yunyan Qiu Carnegie Mellon University Scott Radzinski Virginia Tech

Virginia Tech

Mayra Rostagno

University of Florida

Apoorv Shanker University of Michigan Leo Shaw Stanford University **Yixuan Song** Texas A&M University Katherine Washington University of Texas at Dallas **Annabelle Watts** University of Minnesota Yuyin Xi University of Washington Sanghee Yang Seoul National University Sheng-Sheng Yu Georgia Institute of Technology Haomiao Yuan University of Massachusetts -Amherst Lanhe Zhang Northwestern University Qianqian Zhang North Carolina University at Chapel Hill Xiayun Zhao Georgia Institute of Technology



## **Undergraduate Research in Polymer Science Symposium**

The 12th annual Undergraduate Research in Polymer Science Symposium was held at the ACS National Meeting in San Francisco, CA with 13 oral and 33 poster presentations from 30 institutions across the country. The POLY Industrial Advisory Board and Dr. George Foster's bequest sponsored awards for best paper and the best poster presentation.

The symposium featured a panel discussion on Careers in Industry, with representatives from Dow, Covestro, Polymer Chemistry Innovations, Air Force Research Laboratories, and University of Oregon. The program was co-sponsored by POLY, IAB, and USM School of Polymers and High Performance Materials. Special thanks to the symposium organizers Sarah Morgan, Sergei Nazarenko, and Joe Lott all from The University of Southern Mississippi School of Polymers and High Performance Materials for their continued commitment to this very important annual symposium. Polymer undergraduate programs and awards are an important part of POLY's commitment to its membership at all stages!

### **Undergraduate Awards**

Best Oral:
David Bilger, California Polytechnic
State University
POLY 149: Multi-scale assembly of
polythiophene-surfactant supramolecular complexes

<u>Best Poster</u>: Christopher Kasprzak, California Polytechnic State University POLY 475: Polysoaps to serve as stimuli-responsive micelles for environmental remediation applications

<u>2nd Place Oral</u>: Brett Pogostin, Haverford College POLY 202: pKa determination of a his residue in a self-assembling peptide using Raman spectroscopy

<u>3rd Place Oral</u>: Roxanna Kiessling, Claremont Colleges POLY 201: Semi-flexible string conformational analysis towards an experimental hydrophobic-folding model system

<u>2nd Place Poster</u>: Kathleen Chen, Wellesley College POLY 451: Fabricating novel optical sensors by embedding gold nanoparticles inside peptoid nanosheets

3rd place Poster: Maxwell Steffen, Allegheny College POLY 458: Isothermal crystallization analysis of poly(ethylene oxide)-blockpoly (□-caprolactone) with Larger wPEO or wPCL

Sponsored by IAB and George Foster Bequest

## POLY E-mail Discussion List

The discussion list is a great way to inform others and receive information about upcoming symposia, workshops, job positions, share questions and answers, and more. The list is available to all POLY members who choose to sign-up. To sign up, sign off, or change e-mail address . . .

SIGN UP TODAY

- 1) Go to POLY Web: www.polyacs.org
- 2) Click: FOR MEMBERS
- 3) Click: POLY DISCUSSION LIST
- 4) Complete and submit the web site form

Members can send e-mails to: POLY-L@LISTSERV.OKSTATE.EDU

## **Get Involved!**

POLY is a volunteer organization; we thrive on the efforts and contributions of our membership. There are many ways to contribute to POLY! If you're looking to get more involved consider joining one of our committees. Just reach out to the point of contact listed below, or join us for the committee meeting during the Fall or Spring ACS National meetings. You can request list of committee meetings, locations, and dates from the POLY Business Office in August (KATHYL@vt.edu). Committee meetings are open to all POLY members. Get Involved!

Programming: Do you have an idea for a great symposium? There are always opportunities to organize and preside over technical sessions at ACS national meetings. Come by the Programming Coffee Hour (Tuesday afternoons at the ACS National Meetings) and share your ideas with the Programming Committee. Contact: Tim White (timothy. white.24@us.af.mil), Corrine Lipscomb (celipscomb@mmm.com) or Thomas Epps (thepps@udel.edu) for more information.

International Committee: POLY often works with sister organizations around the globe to co-organize outstanding international meetings and workshops such as Macromex and the Pacific Polymer Conference. International POLY members or members interested in making more international contacts are encouraged to get involved. Contact: Rigoberto Advincula (rca41@case.edu).

Membership Committee: Recruiting and retaining new members is vital to the health of POLY. If you have thoughts on how we can better recruit, retain, and serve our membership consider getting involved with the membership committee. Contact: Kevin Cavicchi (kac58@uakron.edu) or Brent Sumerlin (sumerlin@chem.ufl.edu).

Education Committees: PolyEd (focusing on undergraduate and graduate education) and IPEC (focusing on K-12 education and outreach) are fantastic ways to contribute to POLY's educational mission. These committees work together closely to develop and improve learning about polymer science across all levels of education. We are always looking for new energetic members. Contact: Phil Costanzo (pcostanz@calpoly.edu) and Kevin Cavicchi (kac58@uakron.edu).

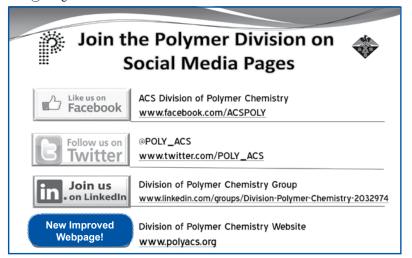
### **Membership Committee Report**

I am happy to report that the membership in the POLY division remains strong. One news item of interest is that Brent Sumerlin (University of Florida) has been appointed Chair of the Membership Committee. In addition, Brian Long (University of Tennessee) and Katrina Knauer (BASF) have joined Mary Ann Meador (NASA), Michael Meador (NASA), and Alan Hopkins (The Aerospace Corporation) as committee members. We look forward to their contributions to the membership and appreciate their service.

The Division continues to offer free POLY membership to new members or if you have not been a member for three years. Sign up on-line at http://polyacs.net/Membership/memberapp. htm. While Division officers and the membership committee strive to recruit new members at the national meetings, there are plenty of other opportunities to recruit including regional and local section ACS meetings or other polymer-focused conferences. Anyone interested in running a membership drive for POLY, please contact Kevin Cavicchi (kac58@uakron.edu) or Kathy Mitchem (kathyl@vt.edu) to receive a simple, easy to use, recruiting packet.

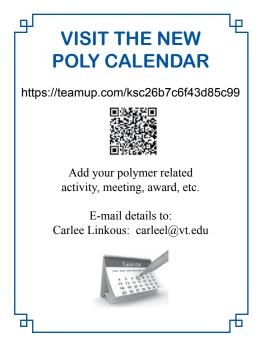
In Student Chapter news, the University of Michigan POLY/PMSE Student Chapter received the Best POLY Chapter for their activities in 2016. Outstanding achievements for the chapter in the past year include several initiatives in polymer science education and outreach. The chapter's "Exploring Polymer Science" outreach initiative included visits to 15 K-12 schools (~1700 students) in the greater Detroit area. Chapter involvement in Xplore Engineering, an event to teach children and grandchildren of UM alumni about various aspects of engineering, was highly successful and well-received in the community. The UM student chapter's outreach efforts were summarized in a recent manuscript on strategies to incorporate polymer science in the classroom, which was submitted to the Journal of Chemical Education. The chapter also improved its polymer fundamentals boot camp, a collection peer-led lectures, designed to introduce undergraduates to polymer science and engineering concepts and to strengthen graduate students' knowledge base.

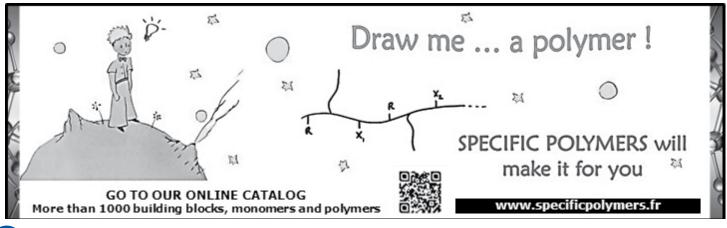
Special thanks to Sarah Orski (NIST) for organizing the review of annual student chapter reports. If you have further questions about POLY/PMSE Student Chapters, please contact Sara at sara.orski@nist.gov.





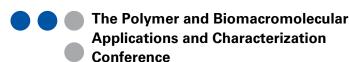
POLY Student Chapter Award: (l-r) Y. Doleyres (UM), M. Hillmyer (POLY Chair), and L. Foster (UM)





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## **:GPC2017**





July 18-20, 2017 • W Atlanta – Buckhead • Atlanta, Georgia

## Register now for the upcoming GPC2017 Conference!

GPC2017 is a two day conference that focuses on innovations in the synthesis of polymers and biopolymers, the application of gel permeation chromatography (GPC) and advanced detection for the characterization of these materials.

Invited speakers include the following polymer scientists from the top academic institutes and chemical companies:	
Dr. Annelise Barron Stanford University	Dr. Jimmy W. Mays – Committee Honorary Chair University of Tennessee, Knoxville
<b>Dr. Matthew Becker – Committee Co-Chair</b> <i>The University of Akron</i>	Dr. Emily Pentzer – Committee Member Case Western Reserve
<b>Dr. Erik Berda</b> <i>University of New Hampshire</i>	Dr. John Reynolds – Committee Co-Chair Georgia Institute of Technology
Dr. Lei Fang Texas A&M University	Dr. Paul S. Russo Georgia Institute of Technology
Dr. Reza Farasat Tosoh Bioscience LLC	Dr. Dan Savin University of Florida
David Gillespie – Committee Member The Dow Chemical Company	Dr. Brent Sumerlin University of Florida
Dr. Scott Grayson – Committee Member Tulane University	Dr. Rudy J. Wojtecki IBM - Almadan Research Center
Dr. Abraham Joy The University of Akron	Dr. Youlu Yu Chevron Phillips Chemical Company LP
Dr. Brian Long University of Tennessee, Knoxville	ATTENTION STUDENTS

### JOIN THE SHORT COURSE

A short course on the principles of GPC for the characterization of polymers and polyolefins, as well as instrument troubleshooting and routine maintenance, will be held on July 18th, 2017 at the conference hotel.

### **SUBMIT A POSTER**

Compete to win! Get your work noticed and network for your future. Please visit our website for poster submission instructions.

### Top three posters win a prize:

1st place: complementary registration + travel + hotel 2nd and 3rd place: complimentary registration

www.gpc2017.com

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www.tosohbioscience.com



### **POLY Election Information**

The on-line POLY election was held Fall 2016 with a success of over 22.1% voting membership participation (879 voters).

The slate of candidates for the fall election has been selected by the nominating committee, approved by the Executive Committee, and listed below for your review. An e-mail will be sent to all voting members this fall which will contain a website address and login instructions for the on-line election.

As always, if you would like to update your mailing or e-mail address, please contact ACS membership services at 1-800-333-9511 or e-mail: services@acs.org.



### 2017 Election Slate

Election Opens October 16 - November 16, 2017

### Vice Chair:

### Michael Meador, NASA Glenn Research Ctr. Travis Baughman, DSM Engineering Plastics

<u>Duties</u>: Serve as an active voting member of the POLY Executive Committee. Support the Chair and Executive Committee of the Division while acting as liaison for Division Committees. Become familiar with operations of the Division to prepare for the functions of Chair-Elect and Chair in succeeding years. Attend Executive Committee meetings and promote the interests of members, committees and Executive Committee. The Vice-Chair oversees the Program Council and chairs a meeting of the Program Council at each National ACS Meeting.

#### Treasurer:

### Derek Patton, University of Southern Mississippi Christine Landry-Coltrain, Eastman Kodak Co.

<u>Duties</u>: Serve as an active voting member of the POLY Executive Committee during a 3 year term. This officer handles all financial affairs for the Division including, but not limited to, overseeing Division dues/renewals, process income and expenditures, file annual income taxes, submits ACS financial reports and develops, maintains, and executes the POLY budget, which is approved by the Executive Committee. This person will solicit and collect support for POLY programs. The Treasurer provides fiscal oversight and approval of national meeting and workshop activity. He/She will oversee investment accounts and provides guidance for growth. The Treasurer serves as the direct supervisor for the POLY Business Office.

### Councilor:

### Frank Blum, Oklahoma State University Kathryn Uhrich, University of California, Riverside

<u>Duties</u>: Serve as an active voting member of the POLY Executive Committee during a 3 year term. Councilors represent the Division at an ACS level. Once elected, ACS assigns the Councilor an ACS committee(s) on which to serve. The Councilors attend committee and ACS Council meeting, held during ACS National Meetings, to provide input to represent the Division. They serve as an active voting member of the POLY Executive Committee. A Councilor provides helpful feedback to Division Officers and the membership in regard to ACS level activity. POLY elects both academic and non-academic officers independently to best represent the broad interests of Division's membership. A Councilor is typically a seasoned POLY Member or past officer who can represent the interests of our Division members at the ACS level.

### **Alternate Councilor:**

### Johan Foster, Virginia Tech Alan Guymon, University of Iowa

<u>Duties</u>: During a 3 year term, be available to replace or fill in if a Councilor is unable to fulfill their duties at a National ACS Meeting. Attend POLY Executive Committee meetings and provide the Councilor's report, if absent. Become informed on National and Divisional issues in order to serve as needed. Carry out specific assignments as requested by the POLY Division Chair, Councilor, or serve on committees as needed.

## Congratulations Newly Elected Officers

<u>Vice Chair</u> Sarah Morgan University of Southern Mississippi

<u>Secretary</u> Erik Berda University of New Hampshire

Councilor
Joseph Mabry
Air Force Research Lab.

Councilor
Greg Tew
University of MassachuesettsAmherst

Alternate Councilor Semra Colak 3M

Alternate Councilor
Brent Sumerlin
University of Florida

### **POLY Officers List**

http://www.polyacs.org/ 12.html

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# Wishing your GPC system had the power your application demands?



OMNISEC's unrivalled light scattering and RI sensitivity opens up the widest possible application range for measuring absolute molecular weight <1 KDa or injection masses as low as 100 ng!

- Multi-detector format includes the ability to make high quality measurements of molecular size and structure, and copolymer composition.
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## Industrial Advisory Board

POLY IMB



Travis Baughman (DSM Engineering Plastics) Chairman IAB

**Michael Hunt** (Polymaterials) Vice Chairman IAB As in previous years, 2017 looks to be a very productive and high value year for the Industrial Advisory Board (IAB) and its members. The success of this Board is largely due to the company representatives, the people, who are the driving force behind the great success of IAB and ultimately the Division as a whole. These representatives have helped to define what industry wants from POLY, and the IAB has become an instrument of change through its programming, education, and awards.



I-r: M. Hillmyer (POLY Chair), D. Debnath (U. of Akron), M. Hunt (IAB Vice-Chair)

We have continued our regular programming at the Spring ACS Meeting with the 6th Industrial Innovations in Polymer Science (IIPS): Advanced Materials Technologies, co-sponsored by PMSE and ACS Multidisciplinary Program Planning Group (MPPG). This half day symposium was held on Monday afternoon and organized by Jamie Messman (NSC KCP Honeywell) and Travis Baughman (DSM Engineering Plastics) and included such notable speakers as Qinghuang Lin (IBM), Jeff Ahlgren (Wyatt), Jim Hedrick (IBM), Henry Bryndza (DuPont), Jason Rolland (Carbon), and Dan Bowen (NSC KCP Honeywell). In addition to programming, IAB supported the annual Graduate and Undergraduate Research symposia and its biannual Student Travel Awards. Dibyendu Debnath of University of Akron (see award photo) received the travel award for his poster presentation on, "Simple and Accurate Determination of Reactivity Ratio of Chain Copolymerization following Terminal Model by in-situ <sup>1</sup>H-NMR Technique".

The strong programming continues at the Fall ACS meeting in Washington DC with the 7th IIPS installment: "Plastic Packaging Science: Reducing Food Waste to Improving Recyclability" paired with the inaugural Young Industrial Polymer Scientist (YIPS) award symposium. We are pleased to announce that the Awards Committee has recently selected Jamie Garcia (IBM) as the recipient of the inaugural YIPS award. This award was well received by the community with 14 nominations in the inaugural year creating a difficult task for the selection committee. Congratulations Jamie, and thank you to the organizing committee for a successful execution!

Moving forward, the IAB continues to keep POLY relevant for its industrial membership by supporting opportunities for networking, programming, education, and awards. We will continue the highly successful biannual networking reception that focuses on creating connections within the POLY industrial community. Additionally, the IAB will continue support of our new POLY Workshop ticket raffle allowing our members an opportunity to attend a POLY workshop on a registration waiver. Finally, the IAB is working to find even better ways to utilize its dues to best serve the needs of POLY

IAB. With all of this being said, we will continue the programming, education, and award opportunities that have served this Board well.

We extend a heart-felt thank you to members of the Industrial Advisory Board who have inspired new ideas leading to meaningful results to improve the overall industry-relevant experience to the Division of Polymer Chemistry.

~ Travis Baughman (DSM Engineering Plastics) Chairman IAB



## **2017 Polymer Workshops**

### **ADVANCES IN POLYOLEFINS**

September 24-27, 2017 \* Hilton Sonoma Wine Country \* Santa Rosa, CA USA

Organizers: Pal Arjunan (Eureka-GlobChem Consultants), Kenneth B. Wagener (University of Florida), Jerzy Klosin (The Dow Chemical Company), Geoffrey W. Coates (Cornell University)

This Advances in Polyolefins 2017 workshop (APO 2017), covering the entire Polyolefins area, will be the 11th in this series held biennially. Topics will include the recent advances and emerging discoveries in polyolefin synthesis, characterization, catalysis, processes, mechanical behavior, morphology, blends, stabilization, and global market trends. All invited speakers are experts in their areas from both industries and academia worldwide. Additionally, APO 2017 is introducing a "Professor James McGrath Memorial Lectureship" to recognize Jim's many contributions to the division. This lectureship is scheduled for Sunday, September 24, 2017 and will be presented by Robert H. Grubbs, Victor and Elizabeth Atkins Professor of Chemistry, California Institute of Technology, and 2005 Nobel Prize in Chemistry Laureate.

Complete information is online at: http://polyacs.net/Workshops/17APO/home.html



ROBERT H. GRUBBS

The inaugural
"Professor James
McGrath Memorial
Lectureship"
September 24,
2017



4TH US-MEXICO SYMPOSIUM ON ADVANCES IN POLYMER SCIENCE

Los Cabos, México December 3 -7, 2017

Organizers: Rigoberto Advincula (Case Western Reserve University, USA), Angel Licea-Claverie (Tech Institute of Tijuana, Mexico). Michael Cunningham (Queen's University in Kingston, ON, Canadá)

Complete information is online at: http://www.sociedadpolimerica.mx/macromex2017/index.php (US registrations: http://polyacs.net/Workshops/17Macromex/home.html)



### Want more information?

Workshop Chair: H.N. Cheng (USDA), hncheng100@gmail.com

POLY Business Office: Lesia Linkous Pristas, lesiar@yt.edu

HTTP://POLYACS.NET/WORKSHOPSHUB.HTM

### POLYMERS IN NANOTECHNOLOGY

December 17-20, 2017 \* Omni San Diego Hotel \* San Diego, CA USA

Chair: Richard M. Laine (*University of Michigan*) Organizing Team: Alan Sellinger (*Colorado School of Mines*), Jaime Grunlan (*Texas A & M Univ.*), Michael Meador (*NASA Glenn Research Center*), Christopher Li (*Drexel University*), Zhiqun Lin (*Georgia Institute of Tech.*)

Nanoparticle reinforced polymers make up an incredibly large fraction of commercial polymer products sold today, with silica reinforced tires perhaps being the most well recognized. With the advent of polymers used in microelectronics, nanophotonics, biopharmaceuticals, drug delivery, and separation membranes, there are now numerous advanced applications where nanoparticles, organic/inorganic and nanostructured polymer-derived materials are being used to improve properties. This workshop will bring together some of the leaders in the field and will allow for an open forum for sharing ideas.

Complete information is online at: http://polyacs.net/ Workshops/17Nano/home.html



### FLUOROPOLYMER 2018

Summer 2018 \* Denver area, CO USA

Organizers: Scott Iacono (US Air Force Academy), Bruno Ameduri (CNRS Institut Charles Gerhardt)

Fluoropolymers are enabling materials which find applications in critical technologies from energy conversion, to microelectronics and photonics, to extreme environment applications to biomaterials. Traditional fluoropolymer technology is nearly 65 years old and it maintains a growth rate above the US GNP. In addition to perfluoropolymers, partially fluorinated polymers will continue to impact a wide range of technologies as better control of their unique optical, electronic, processing, extreme environment stability, and surface properties is achieved. This workshop will bring together some of the leaders in the field and will allow for several networking opportunities to share ideas.

Complete information is online at: http://polyacs.net/Workshops/18Fluoropolymer/home.html



More information coming soon on...

2018 Graduate Research Polymer Conference

UNIVERSITY OF
MINNESOTA
June 10-12, 2018

http://ngrpc18.umn.edu/

■ POLYCONDENSATION 2018 ■ POLYMERS IN MEDICINE AND BIOLOGY 2018

### Future ACS National Meetings

254th - August 20-24, 2017 Washington, DC

255th - March 18-22, 2018 New Orleans, Louisiana

256th - August 19-23, 2018 Boston, Massachusetts

257th - March 31-April 4, 2019 Orlando, Florida

258th - August 25-29, 2019 San Diego, California

259th - March 22-26, 2020 Philadelphia, Pennsylvania

260th - August 23 - 27, 2020 San Francisco. California

261st - March 21 - 25, 2021 San Antonio, Texas

262nd - August 22-26, 2021 Atlanta, Georgia

263rd - March 20-24, 2022 San Diego, California

264th - August 21-25, 2022 Chicago, Illinois

265th - March 26-30, 2023 Indianapolis, Indiana

### **POLY Program Chairs**

Thomas Epps, III
University of Delaware
thepps@udel.edu

Corinne Lipscomb 3M celipscomb@mmm.com

**Timothy White** 

Air Force Research Laboratory timothy.white.24@ us.af.mil

**Additional Information** 

http://www.polyacs.org/8.html

## **POLY/ACS National Meeting Activity**

ACS POLY National Meeting abstract submission can be completed on-line through MAPS at https://acsmaps.abstractcentral.com/members/client/acs.jsp. Abstract submission deadlines are open spring and fall opposite of each meeting. A POLY poster and oral abstract should include title, authors, affiliations, abstract text, and key figure. Required word count is150 and 250 words (figure is equal to 70 words). This content fits within the current ACS submission system and avoids pre-publication issues that were a major concern for our members in the past. POLY encourages poster participants to participate in *Sci-Mix*, which will make you eligible for the POLY Poster Awards.

### **254th ACS National Meeting**

August 20-24, 2017, Washington, DC ACS Theme: Chemistry's Impact on the Global Economy

Primary POLY Program Chair: T. White

- 8th Symposium on Controlled Radical Polymerization
- Advances in Lignin Chemicals, Polymers & Materials
- Advances in Wettability and Adhesion
- Biomacromolecules/Macromolecules
   Young Investigator Award Symposium in
   Honor of Rachel O'Reilly and Richard
   Hoogenboom
- Charles Overberger Award in honor of Craig Hawker
- · Controlled Radical Polymerization
- Federally Funded Research
- General Topics: New Synthesis & Characterization of Polymers
- Green Polymer Chemistry: Biobased Materials and Biocatalysis
- Journey to Mars: Materials, Energy & Life Sciences
- The Herman F. Mark Award in honor of Edward Samulski
- Macromolecules: The Next 50 Years
- Mark Young Scholar in honor of Garret Miyake
- Mark Scholars in honor of Christopher Bowman
- Mark Senior Scholar in honor of Jim Hedrick
- Materials at the Food-Energy-Water Nexus: Polymers for Soils to Sensors
- Metallo-Supramolecular & Metal Containing Polymers
- Non-Conventional Building Blocks in Conjugated Materials-Innovative Designs and New Applications
- Polymeric Materials at the Food-Energy-Water Nexus
- Polymer Mechanochemistry
- Polymers at the Interface With Biology
- Shape-Shifting Polymeric Systems
- Young Industrial Polymer Science Award in honor of Jaime Garcia

### 255th ACS National Meeting

March 18-22, 2018, New Orleans, LA ACS Theme: The Food, Energy, Water Nexus Primary POLY Program Chair: T. Epps, III

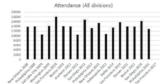
- Adaptive Nanogels
- Cyclic Polymers
- Excellence in Graduate Polymer Research
- Flory Polymer Education Award
- General Topics: New Synthesis and Characterization of Polymers
- Industrial Innovations in Polymer Chemistry
- Industrial Innovations in Polymer Chemistry: Renewable Materials
- Industrial Innovations in Polymer Chemistry-Macromolecules in Biology and Medicine
- Integrating Polymer Science in the Curriculum
- International Symposium on Biorelated Polymers and Renewable Materials
- Nonlinear Dynamic Approaches to the Synthesis of Polymeric Materials
- Optoelectric Polymers
- Photochemistry and Polymers
- Polymer Networks Soft Gels to Stiff Networks
- Structure and Dynamics of Materials via NMR Spectroscopy
- Transport in Polymer Membranes
- Undergraduate Research in Polymer Science

## **Meeting Statistics**



View meeting contribution numbers and attendance on-line at **polyacs.org** 





## **POLY Councilors' Report**

The 253rd American Chemical Society National Meeting & Exposition held April 2-6 in San Francisco, CA with a theme of Advanced Materials, Technologies, Systems & Processes, was record setting with over 18,500 registered attendees. The ACS Council at its April 5th meeting took the following actions:

- By electronic ballot, the Council selected Bonnie A. Charpentier and Willie E. May as candidates for 2018 President-Elect. These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Election.
- A recommendation by the Council Policy Committee to approve the Petition for the Removal of Officers and Councilors (Bylaw III, Sec. 1, i; Bylaw VII, Sec. 1, c; Bylaw VIII, Sec. 4, d) failed.
- The Council approved the Petition on the Rights of Affiliates (Bylaw II, Sec. 1, a, 2, a, 3, b, (3) and (4)).
- The Council voted on the recommendation of the Committee on Budget and Finance to set the member dues for 2018 at the fully escalated rate of \$171. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws. It continues to put ACS near the medium cost compared to other scientific organizations.
- On the recommendation of the Committee on Divisional Activities, the Council approved keeping the
  formula the same for allocating dues funds to divisions, effective with allocations for 2017 division
  performance. The Divisional Activities Committee (DAC) is planning to bring a new allocation formula
  to Council next spring to incentivize divisions to program more at regional and international meetings. A
  DAC taskforce will look into how this might be carried out.



Special thanks to
Emily Pentzer for creating the
POLY Photo Booth

The Council also conducted a special discussion, "ACS Yesterday and Today: Paving the Way to Tomorrow," to gather input for the Joint Board-CPC Task Force on Governance Design. Forty Councilors approached the floor microphones to share observations, comments, and suggestions to assist the task force in identifying opportunities and issues for governance improvement. The task force offered three questions to guide the discussion: What should the Society and its governance do differently to achieve its objectives? If you could change one thing about ACS governance, what would it be? What should the task force leave "as is"? A poll conducted at the conclusion of the discussion revealed that more than half of the Councilors think the current governance structure, processes and procedures should be changed to achieve the objectives of ACS in the 21st century. They are interested in your thoughts which can be shared at governancedesign@acs.org.

In 2016, ACS generated a Net from Operations of \$23.8 million, which was \$7.2 million higher than 2015. Total revenues were \$526.8 million, increasing 2.9% or \$15 million over 2015. Expenses ended the year at \$503 million, which was \$7.8 million or 1.6% higher than prior year. This was attributable to a continued emphasis on expense management across the organization. The Society's financial position strengthened in 2016, with Unrestricted Net Assets, or reserves, increasing from \$163.3 million at December 31, 2015 to \$206.5 million at year-end 2016.

As of December 31, 2016, the ACS membership was 156,129, which is 0.5% less than on the same date in 2015. The Society's overall retention rate is 83.5%. The Committee on Membership Affairs also reported that the number of international members has increased to 27,388, exceeding the committee's target by 5%. Retention of graduate students increased by 2% to 76.2%.

## **POLY Outstanding Poster Award**

This award was established to increase the importance and visibility of posters being presented at ACS National Meetings in the POLY section. It is recognized that a great deal of work goes into preparing and presenting a high quality poster and POLY wishes to acknowledge and reward such efforts.

The POLY Poster Awards Panel reviewed more than 40 nominated posters during the Sci-Mix poster session at the Spring 2017 National Meeting. Nominees were judged on the basis of their contribution to the work, the quality and impact of their research, and their poster presentation and communication skills. Two posters were identified to be outstanding! The winners were announced at the POLY's Awards Reception on Wednesday and presented a \$250 prize.

### 2017 Spring Outstanding Poster Awards

**POLY 397** 

Allegra Liberman-Martin, University of California "Self-Assembly of brush block copolymer photonic crystals featuring low Tg side chains"

**POLY 388** 

Xiao Song Cao, University of Notre Dame
"One-Pot synthesis of hyperbranched polymers with over a million molecular weight and low polydispersity"

To be eligible for future POLY Poster Award, click, "YES" for "Consider for Sci-Mix" when you submit your abstract in MAPS





## In Memory George N. Foster

George N. Foster, Jr., 78, of Hacksneck, VA passed away on September 13, 2016. Dr. Foster, Jr. attended the University of New Hampshire and then Virginia Tech, where he received a PhD in Chemical Engineering. He worked for Union Carbide (Bound Brook, NJ) during his 37 year career in the polymer science field, receiving numerous patents and teaching engagements for his work. He retired

in 1999. Dr. Foster was a member of the American Chemical Society for 53 years and a Division of Polymer Chemistry member for 32 years.

Dr. Foster bequeathed \$2,000 to the Division of Polymer Chemistry to support POLY education. POLY holds two annual symposia for outstanding undergraduate and graduate students. These symposia have an excellent track record of fostering polymer education and promoting excellence in polymer research. The 13th "Excellence in Graduate Polymer Research" and 12th "Undergraduate Research in Polymer Science" symposia were held at the Spring ACS National Meeting in San Francisco, CA, April 2017. The purpose of the symposia is to provide recognition to outstanding graduate and undergraduate students in polymer science and engineering, foster networking and exposure, and help develop the careers of future leaders in the field. Organizers publicize the symposia by inviting universities to nominate outstanding students to speak on their polymer science and engineering research. Dr. Foster's bequest was used to support these two symposia.



## In Memory Garth Wilkes

Dr. Garth L. Wilkes of Blacksburg, Va. passed away on Friday, October 21, 2016 at the age of 74. He was born on May 22, 1942 in New York. His earned degrees are a B.S. in Forestry from New York State College of Forestry, B.S. degree from Syracuse University, M.S. in Forestry also from New York State College of Forestry, M.S. Degree from Syracuse University, M.S. in Polymer Science and Engineering

from University of Massachusetts, and a Ph.D. in Physical Chemistry from University of Massachusetts. He began his long Chemical Engineering teaching and research career in 1969 at Princeton University. In 1978, Garth became a Professor of Chemical Engineering at Virginia Tech, where he remained for the duration of his career. He was a member of ACS and POLY for over 38 years. In addition to numerous other recognitions, he was awarded the Virginia Tech University Distinguished Professor honor in 1999. Garth was a talented educator, influencing countless students at both the undergraduate and graduate levels. During his career, Dr. Wilkes presented more than 500 lectures, contributed to more than 500 scientific publications, and wrote and collaborated on many books and book chapters on polymer chemistry. In addition, he taught over 350 continuing education short courses to diverse sectors of industry, as well as served as a consultant at companies such as 3M, Dow Chemical, Phillips Petroleum, Johnson & Johnson, and many others. Dr. Wilkes was awarded 12 United States patents in his chosen field. He was internationally known and respected as an expert in his field of Polymer Science Chemistry. Garth had many other interests outside of his academic career. He was a gifted guitarist, singer and composer who played professionally in a rock-band while in college. Garth continued to share his love of music with colleagues, family and friends, playing frequently in the Blacksburg area. He also enjoyed hunting, fly fishing and traveling with his wife Barbara all over the world. Garth was a true Renaissance Man who will be missed by all. (http://www.roanoke.com/ obituaries/wilkes-garth-l/article ddb054cc-a55d-5bb0-b9e9-f26f70384c7a.html)



## Science Café Funding

Science Cafes are events that take place in casual settings such as pubs and coffee houses. They are open to the public or invited group, and feature an engaging conversation with scientists about a particular topic. POLY has set aside funding to support 3 such events during 2017 and are taking proposals from POLY members.

Submitt your idea TODAY!

### **IDEA TOPICS**:

How polymers changes clothing
How your health is helped
by polymers
Polymers and the environment
Good food, great polymers
Other Ideas?
These are just examples.

#### WHO MIGHT ATTEND:

It would be up to YOU to publicize the event, circulate flyers, and invite attendees. You may want to target a group or make it open to the public. Ideas might include General Public, College Students, Clubs, etc.

### SUPPORT:

Up to \$200 to be used for . . . Refreshments (Pizza/Drinks/etc.) Science Café Supplies Other items will be considered.

### **SUBMISSION PROCESS**:

Send a one page proposal including who, what, when, where, why, and how to: Kathy Mitchem, POLY Business Office E-mail: kathyL@vt.edu





## Division of Polymer Chemistry, Inc.



a division of the American Chemical Society

To post items on the website and provide feedback Contact: Christine Landry-Coltrain christine.landry-coltrain@kodak.com

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### **Newsletter Production and Advertising Opportunities**

Editors Erik Berda, Kathy L. Mitchem, and Lesia Linkous Pristas

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POLY also circulates an e-news to its members approximatly 15 times annually.

If you are interested in including an article or advertisement, please contact the POLY Business Office for details.

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