# **Fall 2016**

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Visit the POLY website at www.polyacs.org



Webmaster/Alternate Councilor: christine.landry-coltrain@kodak.com





**American Chemical Society** 

Division of Polymer Chemistry, Inc.

Editors: Cher Davis and Kathy L. Mitchem



POLY Chair Karl Haider (Covestro)

### Chair's Address

It has been an honor and a pleasure to serve as the 2016 Chair of POLY. As the end of my term nears, I'd like to share just a few of the many exciting volunteer driven initiatives and accomplishments that I believe will interest many of you.

First, there is positive news in our membership numbers. For the first time since 2011, our mid-year membership roll is higher by ~200 members than in the previous year. Though difficult to attribute to any one factor, we believe our first year free membership offer, an

excellent workshop series, and exciting programming are all contributors. Continued efforts to recruit new members will be strengthened by a recently awarded Innovative Project Grant from ACS to support POLY recruiting drives at local section meetings.

The Industrial Advisory Board (IAB) continues to develop programming and support awards and networking opportunities targeted to industrial participants. The fifth symposium in the series of Industrial Innovations in Polymer Chemistry (IIPC) took place at the 2016 Fall meeting and continues to be popular. The IIPC will continue with symposia addressing the topics of "Advanced Materials" and "Chemistry's Impact on the Global Economy", consistent with the 2017 national meeting themes. In addition to supporting on-going awards, IAB has worked with the Executive Committee to develop and sponsor a new industrial award. A call for nominations has been distributed and the winner of the inaugural "Young Industrial Polymer Scientist Award" will be announced in the Fall of 2017. Also, IAB efforts to support networking are thriving. In addition to the IAB sponsored networking reception following the IIPC, IAB also coordinated an industrially focused networking event across ACS Divisions in collaboration with Corporation Associates at the Spring National Meeting and a separate event with the Philadelphia local section at the recent Fall National Meeting. Both events were supported by an Innovative Project Grant from the ACS and were well attended.

We continue to explore approaches to offer services to the many members who are unable to attend the national meetings. A recent initiative in this area was our partnership with ACS on the Material Science Webinar Series, a monthly webinar series focused on the innovations in material science that impact our lives. POLY members serve as content advisors, suggesting and presenting polymer related webinar topics. Additionally, POLY has some exciting plans targeted at this constituency, so please stayed tuned for details in 2017.

More than any specific initiative, the passion of our members, volunteers, leaders, and staff continue to drive POLY's success. I have seen first-hand the selfless giving of time that so many lend to our division. To that point, our officer elections will open on October 15th. We have an excellent slate of candidates, who have already dedicated many years of service to POLY. Details on the election and how to cast your vote can be found on page 8 of this newsletter. I encourage you to review the biographies and statements of the candidates and make an informed decision.

I've mentioned just a few of the many programs and activities that POLY provides to our members. None of this would be possible without dedicated staff and volunteers. Thank you to all of the volunteers and staff who have contributed to these and so many other projects for POLY. Finally, I offer my sincere thanks to all of you for choosing to be members of POLY.

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### **POLY/PMSE Plenary and Awards Ceremony**



Plenary Lecture: (1-r) Q. Lin (PMSE Chair), K. Haider (POLY Chair), & C. Bowman (University of Colorado)



Industrial Polymer Scientist Award:(1-r)
T. Baughman (IAB Chair), J. Oxman (3M ESPE Dental Center),
K. Haider (POLY Chair), C. Bowman (University of Colorado),
& M. Hunt (IAB Vice-Chair),





**Distinguished Service Award**: (l-r) C. Carraher (Florida Atlantic University) and J. Droske (University of Wisconsin-Stevens Point)



2016 Biomacromolecules/Macromolecules Young Investigator Award: (1-r)

Back Row, Session Speakers; K. Satoh, S. Liu, E. Harth,
E. Kharlampieva, S. Rowan, & D. Adams
Front Row: P. Majumder, A. Dove, C. Boyer,
T. Lodge, & A. C. Albertsson

The POLY/PMSE awards reception, held on Wednesday evening August 24, 2016 at the ACS National Meeting in Philadelphia, PA, honored outstanding achievements by its members. Christopher Bowman (University of Colorado), opened the event with a Plenary Lecture titled, "Smart polymer materials by design: Creating and implementing smart polymers with latent chemical functionality". 2016 POLY Chair, Karl Haider, (Covestro) had the pleasure of congratulating this year's POLY award winners following Dr. Bowman's presentation.

Joel Oxman received the **2016 Industrial Polymer Scientist Award**: This award recognizes outstanding industrial innovation and creativity in the application of Polymer Science, conducted by individual scientists or research teams and is sponsored by the POLY Industrial Advisory Board (IAB). Joel Oxman (3M ESPE Dental Center) received his B.A. in Chemistry from Grinnell College and his PhD from Northwestern four years later. He joined the 3M Company thereafter where he has since become the world's leading expert on the fundamentals and applications of photopolymerization-based chemistry. During his 32 years at 3M and while being an ambassador to many scientific constituencies, Joe has developed numerous photocured products based on his 90+ patents and 95 publications that have led to several billion dollars in product sales based on photopolymer chemistry.

A full symposium was held during the Fall ACS National meeting in honor of Dr. Oxman. Special thanks to the Industrial Advisory Board (IAB), for their continued sponsorship of this outstanding award program.

Distinguished Service Award: POLY salutes its invaluable volunteers, Charles Carraher (Florida Atlantic University) and John Droske (University of Wisconsin-Stevens Pointle for their outstanding and sustained leadership of PMSE/POLY's Educational Initiatives. During their many years of service they have led and sponsored polymer education and outreach at all levels, and have particularly impacted undergraduate students. Their efforts in curriculum development, textbooks, awards and symposia have raised the understanding of polymer chemistry in the society, and have resulted in inclusion of polymer topics in the ACS certified curriculum. Countless students have been impacted by POLYEd, and have been encouraged to pursue graduate studies in polymer science.

ACS Fellows: Congratulations to the 8 POLY members who received the 2016 ACS Fellows Award. A total of 57 distinguished ACS Members were named in 2016. A complete list of all ACS Fellows can be found on-line http://www.acs.org/content/acs/en/funding-and-awards/fellows.html.

### **CONGRATULATIONS**

Lisa Saunders Baugh (ExxonMobil Research & Engineering Company)

Mary K. Carroll (Union College)

Andrew M. Herring (Colorado School of Mines)

Richard B. Kaner (University of California, Los Angeles)

Christine Landry-Coltrain (Eastman Kodak Company)

Christopher L. Soles (National Institute of Standards and Technology)

Joseph S. Thrasher (Clemson University)

Dean C. Webster (North Dakota State University)

Biomacromolecules/Macromolecules Young Investigator Award: This award honors the contributions of two individuals, early in their careers, who have made a major impact on the field of polymer science. The 2016 winners are Andrew P. Dove (University of Warwick) and Cyrille Boyer (The University of New South Wales). The award is sponsored by the ACS Journals Biomacromolecules, Macromolecules and ACS Macro Letters in partnership with the Division of Polymer Chemistry. A half-day symposium, organized by Editors-in-Chief of sponsoring journals, Ann-Christine Albertsson, Paulomi Majumder, and Timothy P. Lodge was held during the fall ACS National Meeting.

In addition to these awards, the, Henkel Outstanding Graduate Research in Polymer Chemistry, POLY Travel Award, and the Outstanding Poster and Video Awards were presented and are highlighted in other articles in this Newsletter.

As you make plans for the upcoming ACS National Meeting in San Francisco, CA, we hope you will join us at the spring POLY/PMSE Awards event which will be held on Wednesday evening, April 2-6, 2017. This reception is a great opportunity to celebrate our colleagues ongoing success and to network with fellow polymer scientists.

# **Max Robb Receives Henkel Outstanding Graduate Research in Polymer Chemistry**

The winner of the 2016 Henkel Award for Outstanding Graduate Research in Polymer Chemistry is Dr. Maxwell Robb who earned a Ph.D. with Prof. Craig Hawker at University of California Santa Barbara for research in the field of organic electronics. He designed a new synthetic strategy for the straightforward preparation of donor-acceptor conjugated copolymers that contain well-defined functional chain-ends. These novel materials enable determination of fundamental optical and electronic properties of D-A copolymers. His technology also enables the investigation of nanoscale self-assembly with conjugated polymers. He designed a new series of perylene-based organic materials that show great promise in the emerging area of organic thermoelectric materials. Devices have already been fabricated with thermoelectric performance better than anything previously reported. This strategy is a new paradigm in the chemistry of conjugated materials for renewable energy applications. Dr. Robb did undergraduate research with Prof. Dan Knauss at the Colorado School of Mines and is currently a postdoctoral researcher with Prof. Jeffrey Moore at the University of Illinois. The award symposium in his honor was held in the PMSE program at the ACS National Meeting in Philadelphia, PA on August 23, 2016.

# **POLY Outstanding Poster Awards**

**Ghoussoub Receives Video Award** 

This award has been 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 Fall 2016 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. Three posters were identified to be outstanding!. Thanks to our award sponsor, Albemarle, for making this award possible.

### 2016 Fall Outstanding Poster Awards

Mitra Ganewatta, University of South Carolina Converting natural biomass to amphiphilic antimicrobial polymers in solution and on surfaces

**Jacob Lockhart**, Vanderbilt University Dual drug delivery: Precise nanohydrogels via liposome master templates

**Crystal Niermann**, University of Texas at Dallas Semiconducting Elastomeric Block Copolymers containing Poly (3-hexylthiophene)

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



Outstanding Graduate Research Award: (l-r) M. Robb (University of Illinois), K. Haider (POLY Chair), C. W. Paul (Henkel), & Q. Lin (PMSE Chair)

Sponsored by





POLY Poster Award: (l-r)
M. Ganewatta (Univ. of South Carolina),
K. Haider (POLY Chair), &
C. Niermann (Univ. of Texas-Dallas)

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### **▲** ALBEMARLE®

# This award prepares young chemists to present their research in a short video/movie format and interact with a broad range of audiences, including more senior scientists and the general public. With this award POLY wishes to help develop the communication skills of young scientists, while simultaneously increasing their investment in the success of ACS and the POLY Division. The winner is recognized at the ACS National Meeting, POLY/PMSE Awards Reception and the video is displayed during the meeting in the POLY session area, as well as POLY's web page, Facebook and LinkedIn sites.

### Fall 2016 Video Award

"The Promises of Polymer Chemistry" by Yara Ghoussoub Florida State University

### **View Video On-line:**

https://drive.google.com/file/d/ 0B0sgleVsZnSPNEI1ZzZIVXIYY2M/ view?pref=2&pli=1





POLY Video Award: Y. Ghoussoub Florida State University

### Reineke to Receive Marvel Award

The Carl S. Marvel Award recognizes and encourages accomplishments and/or innovation of unusual merit in the field of basic or applied polymer science by younger scientists. Theresa M. Reineke (University of Minnesota) will be recognized during the Spring ACS National meeting in San Francisco, CA at the POLY/PMSE Award reception on Wednesday evening. A special 1/2 day POLY Symposium will also be held in her honor.



Theresa M. Reineke University of Minnesota

## 2016 Science Cafe 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 2016 and are taking proposals from POLY members. Submit your idea before November 30th!

### **IDEA TOPICS**:

How polymers change the 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/Coffee/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

# **Annual Treasurer's Report**

The table below is a summary of 2015 activity, 2016 approved budget, and the 2016 income and expenditure as of July 31, 2016. POLY is a non-profit organization. In review of the past 10 years, POLY's cumulative revenues have exceeded expenses by \$1,000, showing ExComm.'s commitment to membership programs and benefits. As of January 1, 2016, POLY had \$936,021 in investments. Investment funding continues to support unfunded awards, workshops, and other programs as need arises. The POLY Executive Committee continues to strive to conservatively utilize investment funding while maintaining a secure division.

Any questions or requests for funding may be directed to the POLY Division Treasurer, Derek Patton, derek.patton@usm.edu. All annual requests for funding from committees chairs and organizers should be submitted to the Treasurer by December 1, 2016 and will be reviewed for consideration at the winter POLY Executive Committee Meeting on January 21, 2017.

	2015 Actual		2016 Budget		2016 - JanJuly	
Budget Category	Income	Expense	Income	Expense	Income	Expense
Dues/ACS Allocations	178,591	-	180,500	-	123,712	-
National Meetings Activities	55,582	121,323	64,500	166,000	49,762	120,877
Workshop Activities	425,601	420,524	326,000	246,000	140,702	39,754
Administrative	162	169,910	-	169,900	88	121,090
Publications/Advertising	28,570	14,667	20,500	10,600	14,605	5,905
Committee/Awards Activities	53,270	54,150	31,800	50,600	24,000	29,806
Cashed Investments/Checking	75,000		19,800			
Total Budget	816,776	780,574	643,100	643,100	352,869	317,430

### **Awards Deadlines**



### **POLY Fellows Award**

Application Due: 11/30/2016 Sponsored by: POLY

Purpose: To recognize excellence in all ways that POLY members advance our field of polymer science, either through scientific accomplishments, service to the profession,

or both.

### Biomacromolecules/Macromolecules Young Investigator Award

Application Due: 1/12/17

Sponsored by: ACS MacroLetters/
POLY/Macromolecules/Biomacromolecules
Purpose: Honor the contributions of two individuals, early in their careers, who have made a major impact on the field of polymer science.

### Henkel Outstanding Graduate Research in Polymer Chemistry Award

Deadline - 1/31/2017

Sponsored by: Henkel

Purpose: Recognize a graduate student
or recent graduate who completed an
outstanding Ph.D. thesis in research
accepted by a U.S. or Canadian university.

### **Graduate Student Travel Award**

Deadline - Spring & Fall (approx. 1 month prior to ACS Submission 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.

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

### **Awards Co-Chairs**

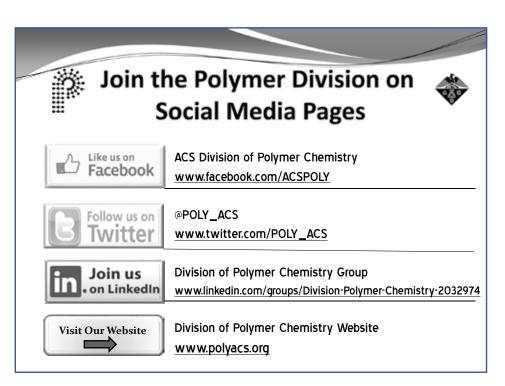
Kenneth Carter Univ. of Massachusetts-Amherst Phone: 413-577-1416 krcarter@polysci.umass.edu

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

# **Membership Committee Report**

Membership in the division is central to the well-being of POLY. The August 2016 membership numbers increased (5%) compared to the previous year for the first time since 2011. This can be attributed to a number of factors including robust programming at the National Meetings, vibrant offering of POLY workshops, and the new membership drive offering free POLY membership to new or returning members with a three or more year lapse in membership. To expand our membership drive we are initiating a new program to reach to ACS local sections through an innovative projects grant sponsored by the ACS. The goal of this grant is to recruit new members to the POLY division by sponsoring local sections and running a recruitment drive. Any POLY members active in local sections with interest in this activity should contact Kevin Cavicchi (cavicchi @uakron.edu).

In student chapter news, POLY is happy to welcome Virgina Tech as the newest POLY/ PMSE student chapter. With the long connection to the University, we look forward to great things from this new chapter. Once again, student chapter funding will be conducted through the submission of annual student chapter reports, which will be due on February 6th, 2017. More information will be announced on the POLY and PMSE web-pages and sent to the student chapter presidents and faculty advisors. Any questions about the POLY/PMSE student chapter program should be directed to Sara Orski at sara.orski@nist.gov.



### **VISIT THE NEW POLY CALENDAR**

https://teamup.com/ksc26b7c6f43d85c99



Add your polymer related activity, meeting, award, etc.

E-mail Details To: Carlee Linkous: carleel@vt.edu

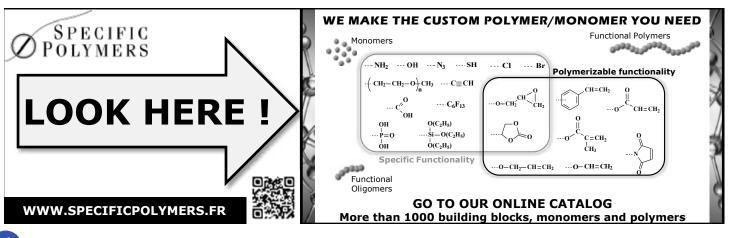


# **POLY E-mail Discussion List**



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 . . .

- 1) Go to the POLY www site: www.polyacs.org
- 2) Click on:
  - **POLY Electronic Discussion List** (on the right under "Quick Links")
- 3) Complete and submit the web site form.



# TSKgel® GPC Columns

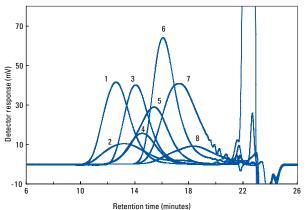


# State-of-the-Art in Separations Technology

Semi-micro columns (4.6 mm ID × 15 cm) are the TSKgel columns of choice for use with EcoSEC® GPC Systems and offer the versatility to handle all sample types:

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- Organic-soluble polymers
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TSKgel SuperMultiporeHZ columns offer high speed and low solvent consumption analysis with precise results for the separation of polymers with a wide range of molar mass.



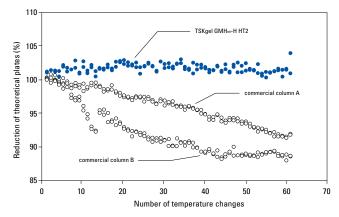
Column: SuperMultiporeHZ-H (4.6mmID x 15cm) x 4
Eluent: THF
Flow rate: 0.35 mL/min

Detector: RI Temp.: 40°C

Inj. Vol: 10μL, each 3g/L Samples: 1. Polyisobutylene

- 2. Acrylic resin #1 3. Polystyrene (SRM 706)
- 4. Polybutadiene
- 5. Polyvinylbutyral
- 6. Polycarbonate
- 7. Epoxy resin
- 8. Acrylic resin #2

TSKgel high temperature columns demonstrate superior durability and thus deliver precision in number- and z-average molar mass values.



Column: TSKgel GMH<sub>HR</sub>-H HT2, 5  $\mu$ m, 7.8 mm ID  $\times$  30 cm  $\times$  2

Mobile phase: ODCB with 0.05% BHT
Flow rate: 1 mL/min

Detector: RI (EcoSEC High Temperature GPC System)

Temperature: 40 to 145 °C

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### **2016 POLY On-Line Elections**



The 2016 candidate information is summarized below. Full statements and bylaw information can be reviewed on-line at <a href="https://vtnw.com/go/PolyBios/">https://vtnw.com/go/PolyBios/</a>. An e-mail will be sent to all voting members containing website and login instructions. If you do not have an e-mail address on file, a postcard will be mailed to you.

The 2015 POLY Election was a huge success providing approximately 20.4% voting-membership participation (808). POLY anticipates a repeat performance in 2016.

### **VOTING ON-LINE IS AS EASY AS 1-2-3!**

- 1. Watch for the e-mail or postcard which will be sent in October from elections@vote-now.com, containing your individual password.
- 2. Once you receive your e-mail or card, go on-line to complete the election ballot at <a href="https://vtnw.com/go/POLY/">https://vtnw.com/go/POLY/</a>
- 3. If you do not receive an e-mail or postcard by October 30th or for additional questions, please feel free to contact the POLY Business Office at kathyL@vt.edu or call 540-231-3029.

# **Election Slate**

### Candidates for Vice-Chair



Mark Dadmun University of Tennessee



Sarah Morgan University of Southern Mississippi

### **Candidates for Secretary**



Erik Berda University of New Hampshire



Michael Meador NASA Glenn Research Ctr.

### **Candidates for Academic Councilor**



Frank Blum Oklahoma State University



Gregory Tew University of Massachusetts Amherst

### **Candidates for Non-Academic Councilor**



Joseph Mabry Air Force Research Lab



**John Pochan** Graphene Devices Limited

### **Candidates for Academic Alternate Councilor**



Malika Jeffries-EL Boston University



Brent Sumerlin University of Florida

### Candidates for Non-Academic Alternate Councilor



Travis Baughman DSM



Semra Colak Atan 3M



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# **Industrial Advisory Board**

The Polymer Division Industrial Advisory Board (POLY IAB) remains focused on its core mission aiming to further extend the industrial voice within the Division through activities focused on enhancing industrial programming and continuing support of various awards and educational initiatives.

Just after the Spring ACS meeting in San Diego, CA the IAB leadership and selected members met to finalize a 3 year strategic plan that has since been approved by membership and accepted by the POLY ExComm. The strategic plan outlined the focus of the IAB for the coming three years including maintenance of all currently supported initiatives and how we plan to engage the community at the coming three years of ACS meetings and other activities. Additionally, this group was able to finalize the structure and process for the inaugural Young Industrial Polymer Scientist (YIPS) Award to be presented at the Fall 2017 ACS meeting in Washington, D.C. We are excited to announce the nomination process for the inaugural YIPS award with a deadline of October 31, 2016 (even years). For more information please visit <a href="http://www.polyacs.org/1256.html">http://www.polyacs.org/1256.html</a>.

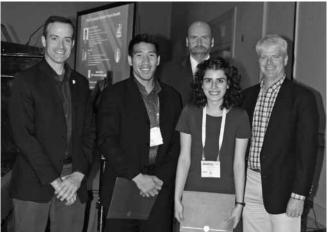
Recently, the IAB has been focused on expanding the impact of our signature symposium series, the Industrial Innovation in Polymer Chemistry (IIPC), by engaging related technical divisions to co-program, thereby, engaging larger, more fringe polymer audiences, while focusing on synergistic technological advancements between the two areas of interest. Recently, the Division of Inorganic Chemistry has collaborated with us by successfully executing three co-programmed symposia with one symposium in San Diego in the spring and, most recently, two half-day symposia in Philadelphia, PA. We plan to continue this effort by collaborating with PMSE for the "Industrial Innovations in Polymer Science: Advanced Materials, Processes & Technologies" symposium in San Francisco, CA next spring. As we look forward to the upcoming meetings, we will continue to seek links to other technical divisions that also align well with the ACS meeting themes.

During the fall ACS Meeting, POLY IAB supported the 2016 Industrial Polymer Scientist Award presented to Joel Oxman (3M), for his outstanding contributions in the field of photopolymerizations and photopolymers (see award photo on page 2) and the Graduate Student Travel Awards. Congratulations to Azadeh Farahanchi (University of Massachusetts Lowell) and Joey Kim (Caltech). The deadline for future Travel Awards are spring and fall prior to each ACS meeting. For specific dates and information visit: http://www.polyacs.org/649.html/.

Finally, we would like to report that our Innovative Project Grant (IPG) activities have been completed as of this August. Proposed as a way to link our POLY IAB initiatives to the greater ACS and local sections, we feel we succeeded in both of these objectives by co-hosting two networking events at the San Diego and Philadelphia ACS meetings. The ACS level collaboration was hosted in San Diego during our traditional Monday evening networking slot. This event was nicely attended and included a visit from Diane Grob Schmidt, current President of the ACS. For Philadelphia, we hosted a Sunday networking event focused on bringing POLY IAB members together with local ACS section members and local chemical industry representatives. This was a more informal event aimed at making personal connections between organizations while lending a hand to colleagues affected by recent changes in local industry.

We are always interested in new ways to serve the POLY industrial community and welcome your suggestions and attendance during the ACS meetings at our Monday evening networking event or Tuesday morning board meeting. For more information regarding this thriving program, contact Chair: Travis Baughman (DSM Engineering Plastics, travis.baughman@dsm.com) or Vice-Chair, Michael Hunt (Polymaterials, m.hunt@polymaterials.de).





Travel Award: (1-r)
T. Baughman (IAB Chair), J. Kim (Caltech), K. Haider (POLY Chair),
A. Farahanchi (University of Massachusetts Lowell),
& M. Hunt (IAB Vice Chair)

### TRAVEL AWARD RECIPIENTS:

Azadeh Farahanchi (The University of Massachusetts Lowell) "Understanding the Effect of ultra-High Speed Twin Screw Extrusion on the Thermo-Mechanical Properties of Polymers"

Joey Kim (Caltech)

"Crystallization-driven ordering and self-assembly in bottlebrush polymers"

# **POLY Workshops Line-Up**

### Silicon-Containing Polymers and Composites

December 11-14, 2016 Omni Hotel \* San Diego, CA USA http://polyacs.net/Workshops/16SiliconC/home.html



### Chair:

Joseph M. Mabry, Air Force Research Lab.

### Layered Polymeric Systems

February 21-24, 2017 Asilomar Conference Grounds, Pacific Grove, California, USA http://polyacs.net/Workshops/17Layered/home.html



### **Co-Organizers:**

- -Eric Baer, Case Western Reserve University
  -David Schiraldi, Case Western Reserve University
  -Karl Haider, Covestro
- -Rigoberto Advincula, Case Western Reserve University

# Polymers for Fuel Cells, Energy Storage, and Conversion

February 26—March 1, 2017 Asilomar Conference Grounds, Pacific Grove, California, USA http://polyacs.net/Workshops/17FuelCells/home.html



### **Co-Organizers:**

- -Brian Benicewicz, University of South Carolina
- -Tom Zawodzinski, University of Tennessee-Knoxville

### Advances in Polyolefins XI - 2017

September 24-27, 2017 Hilton Sonoma Wine Country, Santa Rosa, California USA http://polyacs.net/Workshops/17APO/home.html



THE "PROFESSOR JIM MCGRATH MEMORIAL LECTURE"

featuring: Robert H. Grubbs , Victor and Elizabeth Atkins, Professor of Chemistry, California Institute of Technology

### **Organizing Committee:**

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

### Polymers and Nanotechnology

December 17-20, 2017 Omni San Diego Hotel, San Diego, California http://polyacs.net/Workshops/17Nano/home.html



### **Organizing Team:**

- -Richard Laine (Chair)University of Michigan
- -Jaime Grunlan, Texas A & M Univ.
- -Christopher Li, Drexel University
- -Alan Sellinger, Colorado School of Mines -Michael Meador, Nat. Nanotech. Coord. Office
- -Zhiqun Lin, Georgia Institute of Tech.

# 12th National Graduate Research Polymer Conference

The College of Polymer Science and Polymer Engineering at the University of Akron was honored to host the 12th National Graduate Research Polymer Conference, June 20-22, 2016. Over 500 attendees were present including 425 graduate students, 34 undergraduate students, and 29 post-doctoral students representing close to 80 colleges and universities. Sixty-six representatives from organizations, including representatives from popular polymer companies and labs like Eastman, Goodyear, A. Schulman and NIST were also part of the record attendance for this ACS sponsored biannual conference event. Thanks to this opportunity from the ACS Division of Polymer Chemistry, the College of Polymer Science and Polymer Engineering was able to offer an Akron, Ohio experience alongside the rich tradition of providing an opportunity for students to share research, exchange ideas, and make connections in the polymer industry.

### Workshop Information

Webpage: http://polyacs.net/workshopshub.htm

> or contact Lesia Linkous Pristas POLY Business Office 540-231-3029 LESIAR@VT.EDU

### Workshop Chair

H. N. Cheng USDA hncheng100@gmail.com

Submit a Workshop Proposal www.polyacs.net/ workshopshub.htm

# POLY Program Chairs

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

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# Additional POLY Session Information

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

# **Epps Named POLY Program Chair**



Congratulations to Thomas H. Epps, III, University of Delaware, for being selected as the newest POLY Program Chair. A new POLY Program Chair is selected annually to serve a 3 year term to organize and implement POLY Programing at ACS National Meetings.

# **POLY/ACS National Meeting Activity**



### 253rd ACS National Meeting

April 2-6, 2017 - San Francisco, CA ACS Theme: Advanced Materials, Technologies, Systems, and Processes Primary Program Chair: C. Lipscomb

- 50th Anniversary Celebration of Macromolecules (T. Lodge)
- ACS Award in Polymer Chemistry in honor of Murugappan Muthukumar (T. Lodge)
- Carl S. Marvel Creative Polymer Chemistry Award in honor of Theresa Reineke (T. Lodge)
- Contributions of IBM Almaden to Polymer Science (B. Miller, D. Yoon, & E. Hagberg)
- Excellence in Graduate Polymer Research (H.N. Cheng, C. Ellison, T. Long, & C. Landry-Coltrain)
- General Topics: New Synthesis and Characterization of Polymers (D. Garcia)
- Incorporating Polymer Science into the Classroom (S. Morgan and K. Cavicchi)
- Industrial Innovations in Polymer Science: Advanced Materials Technologies (J. Messman, & T. Baughman)
- Next Generation Smart Materials (E. Berda, J. Foster, and Y. Simon)
- Polymer Applications and Characterization in the Biomedical Industry (J. Slager and X. M. Liu)
- Polymer Chemistry (RSC) Lectureship (W. You, J. Johnson and E. Penzer)
- Polymeric Materials for Performance and Sustainability (M. Meador, M. A. Meador, and S. Morgan)
- Polymers and Biomimicry (T. Williams)
- Separation of Macromolecules and Particulates (W. Gao, X. M. Liu, S. V. Orski, & Yongmei Wang)
- Smart Polymers and Materials from Cyclodextrins: Novel Designs and Applications (G. Wenz and D. H. Thompson)
- Structure to Function in Supramolecular Polymers and Materials (R. Kieltyka, P. Besenius, and J. Matson)
- Undergraduate Research in Polymer Science (S. Morgan, J. Lott, and S. Nazarenko)

### 254th ACS National Meeting

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

Primary Program Chair: T. White

- Advances in Lignin: Chemicals, Polymers, and Materials (N. Washburn)
- Advances in Wettability and Adhesion (S. Iacono)
- Biomacromolecules/Macromolecules Young Investigator Award (P. Majumder, A. Dove, C. Boyer, T. Lodge, & A. C. Albertsson)
- Federally Funded Research (K. Beers)
- General Topics: New Synthesis and Characterization of Polymers (D. Garcia)
- Green Polymer Chemistry: Biobased Materials and Biocatalyst (H. N. Cheng, R. Gross, P. Smith)
- Henkel Award for Outstanding Graduate Research in Polymer Chemistry (W. Ford)
- The Herman F. Mark Award Symposium
- · Mark Young Scholars Award Symposium
- · Mark Scholars Award Symposium
- · Mark Senior Scholar Award Symposium
- Non-Conventional Building Blocks in Conjugated Materials: Innovative Design and New Applications (F. Jackle)
- Polymer Mechanochemistry (A. J. Boydston)
- Polymeric Materials at the Food-Energy-Water Nexus (T. Long)
- Polymers at the Interface with Biology (T. Deming)
- Shape Shifting Polymers (T. Ware)
- · Young Industrial Polymer Scientist Award

# Helpful Organizer Instructions:

https://www.acs.org/content/acs/ en/membership-and-networks/td/ abstractsubmission/maps-resources.html

### **POLY Abstract Submission**



ACS POLY National Meeting abstract submission can be completed on-line through MAPS at https://acsmaps.abstractcentral.com/members/client/acs.jsp. Abstract submission is open spring and fall opposite of each meeting. A traditional abstract includes title, authors, affiliations, abstract text, and key figure. There is a word limit between 150 and 250 words. The figure counts for 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 Councilors' Report**

by F. Blum, M. A. Meador, R. Moore, & J. Pochan

The ACS Council at its August Meeting in Philadelphia, PA took the following actions: elected representatives to the Council Policy Committee (CPC), Nominations and Elections (N&E), and Committee on Committees (ConC). Council voted to continue two other Committees and change two Local Section Territories. Unemployed dues waivers have been extended to three years and an update on the Chemists Code of Conduct was made. A special discussion on US employment of chemists occurred. All four POLY Councilors attended and their participation in committees is noted below. Budget and Finance projected a net for 2016 for operations of \$17.3 million and a total of about 12,800 people attended the Philadelphia meeting.

<u>Council Policy Committee (CPC) (Frank Blum)</u>: CPC presented Bylaws changes for consideration to remove Councilors and Division Officers for cause. A Task Force was formed to examine how to streamline ACS governance and I have been appointed to it. Of particular concern is the underrepresentation of Division Councilors in the ACS Council.

Meetings and Exposition (M&E) (John Pochan): ACS was awarded the 2016 UFI (The Global Association of the Exhibition Industry) Sustainable Development Award for the "Best actions to engage participants around sustainability". ACS was recognized internationally through our attendee initiatives that spread knowledge, enhance attendee experience, and education and inspire participants on sustainability both at the event and beyond.

After comparing the financial implications between Philadelphia and Denver for the 2024 Fall National Meeting, the Committee on M&E has selected Denver to host the 268th ACS National Meeting on August 18-22, 2024. M&E asked the ACS Board of Directors for approval.

I am on a study group (along with the DAC chair and members of M&E and DAC) tasked with looking at ways to enhance the National meeting. One of the many topics we are addressing is: 'Should Thursday program be eliminated?'. If you have any thoughts on this topic, please contact me (JohnPochan@hotmail.com).

<u>Divisional Activities Committee (DAC) (Mary Ann Meador)</u>: Diane Grob-Schmidt presented POLY with a certificate thanking us for our participation in Presidential Programming during her term. The Awards committee is asking for help from divisions and members to increase the number of nominations of women and industrial members for ACS Awards. Both of these groups make up a large portion of ACS members but are under-represented as ACS Award recipients (or even nominees).

DAC received proposals for two new divisions: Materials Chemistry Division and Space Chemistry Division. Surveys will be sent out to divisions for their input on this topic. If accepted, the divisions will be in probationary status until reaching certain membership and other milestones. Opinions concerning these proposed divisions can be sent to maryann.meador@nasa.gov.

<u>Divisional Activities Committee (DAC) (Robert Moore)</u>: The new ACS website now includes a top center box directing visitors to the technical divisions. Marketing of divisions and divisional activities has new leadership with Tessa Kyriakopoulos. The ACS database of membership records is now available to divisions, including the demographics of those not renewing their annual memberships.

### **New ACS Insurance Available**

In response to members' interest, the ACS Member Insurance Program is now offering a new Chemical Educators Legal Liability policy. It provides the coverage necessary for chemistry educators in case of lab accidents. Currently the insurance marketplace offers minimal protection for chemical educators by excluding Contingent Bodily Injury and Pollution Liability from their standard educators' legal liability policies. This new ACS plan will help educators protect themselves against risks within classrooms, teaching and research labs, and community outreach activities. Call 202-263-4018 to speak to the Program Administrator for the Chemical Educators plan. More information about all of the valuable insurance plans offered to ACS and AACT members is given in the ACS Member Insurance Program website (www.acs.org/insurance) or by calling 800-227-5558 x6037.

# Future ACS National Meetings

253rd - April 2-6, 2017 San Francisco, California

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

266th - August 13-17, 2023 San Francisco, California

267th - March 17-21, 2024 New Orleans, LA

268th - Denver, CA

269th - March 23-27, 2025 San Diego, CA

270th - August 17-21, 2025 Washington, DC

# POLY Membership Drive

Free first year membership for new members OR complimentary 1 year membership for those not a member in the past 3 years.

Become a part of the ACS Division of Polymer Chemistry whose members are among legends in the field. POLY members enjoy the following benefits:

- Discounts on POLY technical workshops
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- POLY LinkedIn
- Facebook/Twitter pages
- Polymer Preprints&Graphical Abstracts,
- Newsletters and Books
- Many Award Opportunities

Sign-up on-line at http:// polyacs.net/Membership/ memberapp.htm or e-mail <u>kathyL@vt.edu</u>

# The Value of POLY Membership

We appreciate your membership in the Division of Polymer Chemistry, and encourage you to continue your support of the Division by renewing your membership. We also suggest that you urge your like-minded polymer colleagues to join! Remember, the first year of membership is free. If you need a reminder about why membership in POLY is so important or you want to help convince future members, please have a look at the recent promotional videos about the benefits of joining and staying in POLY!

# POLY Benefits Video http://www.polyacs.org/302.html



Karl Haider, POLY 2016 Chair Covestro

".... as the university relations manager, I knew I would need to connect with a wide variety of professors and students. The Division of Polymer Chemistry provided the perfect environment to build these connections."



Marc Hillmyer, POLY Chair-Elect (Chair in 2017) University of Minnesota

"....the next generation of polymer scientists is where we put a lot of our focus and we've really established a tremendous network of scientists at all points in their career. ...our more seasoned members are active in helping support and foster the growth of the next generation through mentoring and a very active awards program."



Diana Gerbi, POLY Vice-Chair (Chair in 2018)

"Being a member of POLY has helped me identify a network of colleagues and establish myself in the polymer chemistry community. For the small cost of a POLY membership, you can join a strong and passionate group of scientists that can assist you throughout your career, through discussions, networking, and guidance."





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To post items on the website contact Christine Landry-Coltrain christine.landry-coltrain@kodak.com

Visit the POLY website - We have what you are looking 1

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# Newsletter **Production**

**Editors** Cher H. Davis Kathy L. Mitchem

Copy Editor Lesia Linkous Pristas

This newsletter is sponsored by the ACS Division of Polymer Chemistry, Inc. and is published twice per year, in the spring and in the fall.

# Advertising Opportunities, **Membership Benefits and More**

Contact the POLY Business Office for all your POLY questions.

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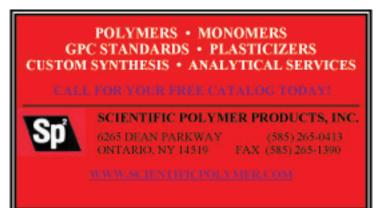


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