

Fall 2015

iNSIDE

3 POLY/PMSE Awards
and Plenary Event

4-5 Awards Information
Membership Activities

6 POLY Elections

8 Industrial Advisory Board
Treasurer's Report

10 Workshops

12 ACS National Meeting

13 Councilors' Report

14 *In Memory*
- *Eli Pearce*
- *Robert Marchessault*

Visit the POLY website at
www.polyacs.org



The POLY Website is now
MOBILE DEVICE FRIENDLY!

Special thanks to Prathamesh
Kharkar (Univ. of Delaware
graduate student), our new
assistant webmaster.

VISIT <http://m.polyacs.org/Home>

Your website feedback and ideas are
always welcome – contact: [christine.
landry-coltrain@kodak.com](mailto:christine.landry-coltrain@kodak.com)



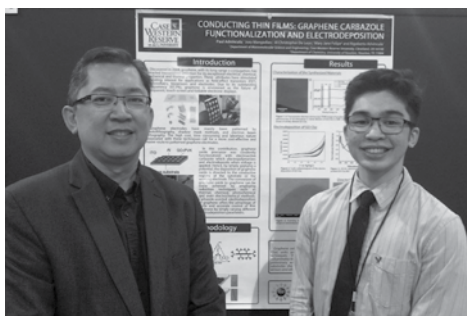
olymer



American Chemical Society

Division of Polymer Chemistry, Inc.

Editors: Cher Davis and Kathy L. Mitchem



**Rigoberto Advincula (2015 POLY Chair)
and his son, Paul Advincula (CWRU)**

Chair's Address

The ACS Division of Polymer Chemistry (POLY) leads the community in cutting edge scientific programming at national meetings, topical workshops, networking activities, and recognition of outstanding members. One of the traditional activities POLY does, jointly with PMSE, is the POLY/PMSE Awards and Plenary Lecture held at the ACS National Meetings. We always look forward to seeing you there! While

many activities are visible at ACS National Meetings, a good number of other activities actually go on outside these meetings, due to the dedication of our volunteers who give their time in leadership, including organization of symposia at regional meetings, organizing and participation in workshops, and recruitment of new members. Looking to the future, we are looking forward to: 1) a full program being prepared for the next Spring ACS national meeting in 2016 in San Diego, 2) a busy 2016 workshop calendar, 3) the national graduate student conference that will be held at the University of Akron in Akron, OH, 4) implementation of a new grant received for the IAB - to increase broader industry and local section participation at national meetings, and 5) continued increased memberships through the recruitment drive – free new membership until the end of this year.

To this last point, I would like to encourage the rest of the POLY community to participate in the membership drive. Recruitment of new members is not just reaching out to attendees at national meetings. It is best done by sharing with colleagues the benefits and activities of the Division. It is not just POLY's leadership or the membership committee's task to design programs to attract new members. It is making each one of us ambassadors for this special group which we belong to. At one point we decided that being a part of this Division gives us a sense of pride and belonging. A large number of us joined POLY as graduate students, having remained with POLY through the years because of the value it has brought to us. Benefits include 1) insight on the next scientific advancement, 2) maintaining a link with our peers, 3) getting updates and announcements by e-mail, 4) networking opportunities for our next career move, and much more. The POLY officers challenge you to identify the many ways the Division makes you proud to be a POLY members and encourage you to share this with others. Do not hesitate to let us know your thoughts and suggestions to improve the Division.

Again, I would like to thank the many volunteers of POLY and the business office for their dedication and hard work on this journey we share.

Rigoberto Advincula, 2015 POLY Chair

P.S. Abigail and Paul (my daughter and son, senior and sophomore polymer majors at CWRU!) are also new POLY members.



POLY Executive Dinner, ACS National Meeting
Boston, MA



Now for my next trick: Essential Macromolecular Characterization™ *without* SEC-MALS

If you're not using Wyatt Technology's Multi-Angle Light Scattering detectors coupled with Size Exclusion Chromatography (SEC-MALS) or Field Flow Fractionation (FFF-MALS), you must *really* believe in magic! When you use a Wyatt MALS detector with your polymers or biopolymers, you'll be able to determine *absolute* molar masses and sizes, look at branching, study aggregation and stability — all completely independent of the typical legerdemain of ancient analytical techniques that involve column calibration and reference standards. Your colleagues will definitely be amazed.



DAWN® HELEOS® Multi-angle light scattering for characterizing macromolecular mass, size and conformation. No other MALS detector comes close in range or sensitivity.



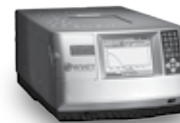
Optilab® T-REX™ Differential refractometer for on-line concentrations. Unparalleled measurement and temperature ranges.



Mobius® Electrophoretic mobility from proteins to nanoparticles. Uniquely sensitive and versatile for all types of solvents.



Eclipse™ Column-free, field-flow fractionation of macromolecules and nanoparticles in solution. One system covers all your separation needs.



DynaPro® Plate Reader Automated dynamic light scattering for proteins and nanoparticles, *in-situ* in standard micro-well plates. Now with a camera!



WYATT
TECHNOLOGY
www.wyatt.com

POLY/PMSE Plenary and Awards Ceremony

The POLY/PMSE awards reception, held at the ACS National Meeting in Boston, MA, honored outstanding achievements by its members. Stephen Cheng (University of Akron), opening the event with a Plenary Lecture titled, “*Polymers for optical technologies utilizing linear susceptibility*”. 2015 POLY Chair, Rigoberto Advincula, (Case Western Reserve Univ.) had the pleasure of congratulating this year’s POLY award winners following Dr. Cheng’s presentation.

One of the top awards presented Wednesday evening was the The Herman F. Mark and Mark Scholars Awards. This special award series recognizes polymer scientists for “*outstanding research and leadership in Polymer Science*” and is sponsored by *Elsevier, the publisher of the journal POLYMER*. Richard Turner, Elsevier’s Representative, was in attendance to present this year’s award.

Herman F. Mark Awardee: Timothy P. Lodge, Regents Professor at the University of Minnesota, is recognized with the award for extraordinary contributions to the field of Polymer Science and Engineering through insightful research, inspiring education of students and post docs, and leadership in service to the community. His original contributions to the understanding of polymer solutions, particularly involving ionic liquids, have greatly advanced the fundamental underpinnings of the discipline while providing society with exciting new technology. Inspirational training of a cadre of young scientists and engineers, complemented by co-authorship of a penetrating textbook, places Lodge among the most impactful educators in the field. As editor in chief of *Macromolecules*, and founding editor of *ACS Macro Letters*, he has provided unsurpassed leadership in maintaining the highest standards of publication in the world.

Mark Scholar Award: Stuart J. Rowan is the Kent H. Smith Professor and Professor of Macromolecular Science and Engineering at Case Western Reserve University. He has pioneered the use of dynamic/equilibrium chemistry to access stimuli-responsive polymers and composites. In particular his research brings together organic chemistry, supramolecular chemistry, inorganic coordination chemistry, polymer synthesis, nanocomposites, rheology, thermomechanical studies and biomedical studies to create new adaptive materials. He is the inaugural Deputy Editor of *ACS Macro Letters* and sits on the advisory board for a number of journals.

Mark Young Scholar Award: Brad Olsen pioneered the concept that hybrid protein-polymer hybrid molecules could be used like traditional block copolymers to form solid state ordered nanostructured materials. His success in engineering these systems has transformed our capability to engineer active biofunctional nanomaterials. He has expanded the scope of block copolymer self-assembly to protein bioconjugates, understanding the fundamental properties of polymer gels, and discovering new mechanisms of polymer diffusion. His materials systems may provide routes to enantioselective synthesis, new forms of enhanced bio-derived catalysts, antibody based sensors and novel biomaterials for biomedical applications

Distinguished Service Awards: Two POLY members were recognized for their outstanding contributions to the Division. Buddy Ratner (Univ. of Washington) was recognized for outstanding and sustained leadership in workshop organization and coordination. Ken Carter (Univ. of Massachusetts-Amherst) was recognized for outstanding organization of the Polymer Division Award Series.

Charles G. Overberger International Prize for Excellence in Polymer Research: This biennial award recognizes and encourages accomplishments of unusual merit in the field of basic or applied polymer science. Congratulations Kris Matyjaszewski (Carnegie Mellon Univ.) for receiving this special award.

ACS Fellows: POLY congratulated our Division Members who received the 2015 ACS Fellows Award including Mark Dadmun (Univ. of Tennessee), Anthony Jay Dias (ExxonMobil Chemical Co.), Richard M. Laine (Univ. of Michigan), Joseph M. Mabry (Air Force Research Lab.), David C. Martin (Univ. of Delaware), Michael A. Meador (National Nanotechnology Coordination Office), Gordon L. Nelson (Florida Institute of Technology), Paul R. Resnick (FluoroScience LLC), and John Texter (Eastern Michigan University).

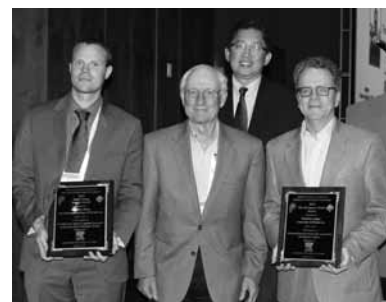


POLY Members - Named ACS Fellows

In addition, several other awards were recognized and are highlighted throughout this newsletter. The reception was extremely well-attended by over 300 POLY and PMSE members and provided an opportunity to better recognize the excellence and community in both the POLY and PMSE Division. The evening celebrated the individuals who are the present and future of Polymer Chemistry. Congratulations again to all!



Plenary Lecture: (l-r) R. Advincula (POLY Chair), S. Cheng (Univ. of Akron), and S. Granados-Focil, (PMSE Chair)



Mark Awards: (l-r) B. Olsen (MIT), R. Turner (Elsevier), R. Advincula (POLY Chair), and T. Lodge (Univ. of Minnesota)



Distinguished Service Award: (l-r) K. Carter (Univ of Mass.), R. Advincula (POLY Chair), B. Ratner (Univ. of Washington)



2015 Overberger Award: (l-r) R. Laine (Univ. of Michigan), R. Advincula (POLY Chair), K. Matyjaszewski (Carnegie Mellon Univ.)

Kramer Receives Henkel Outstanding Graduate Research in Polymer Chemistry

Jessica Kramer is the winner of the 2015 Henkel Award for Graduate Research in Polymer Chemistry. The award was presented at a symposium held in her honor at the ACS National Meeting in Boston, MA, August 16-20. Dr. Kramer completed a Ph.D. in Chemistry in 2013 at UCLA with Prof. Tim Deming. In her Ph.D. research she prepared functional glycosylated polypeptides with controlled placement of sugar groups via living polymerization of highly pure glycosylated alpha-amino acid-N-carboxyanhydride monomers. She is now an NIH Postdoctoral Fellow with Prof. Carolyn Bertozzi at Stanford University. For further information about applying for this award, visit <http://www.polyacs.org/259.html>.



Outstanding Graduate Research Award: (l-r)
J. Kramer (UCLA Graduate), R. Advincula (POLY Chair), and C. W. Paul, (Henkel)

Sponsored by



POLY Outstanding Poster Award

This award is established to increase the importance and visibility of posters being presented at ACS National Meetings in the POLY section. A great deal of work goes into preparing and presenting a high quality poster and POLY wishes to acknowledge and reward such efforts. *Albemarle* provides sponsorship for this award which includes a \$250 prize for 2 poster awards per ACS National Meeting. Nominations are open to current PhD students, post-docs, and industrial scientists at equivalent levels. To be eligible for the award, candidates MUST choose “**Consider for Sci-Mix**” during their abstract submission. This will give the poster presenters an opportunity to participate in Sci-Mix. The POLY Poster Awards Panel will review posters on-site, during the Sci-Mix poster session, to select the finalists. Nominees will be judged on the basis of their contribution to the work, the quality and impact of their research, and their poster presentation and communication skills.

Fall Poster Awardees

Ben Cherniawski, University of Massachusetts

Title: “Effects of Alkyl Substitution of Oligomers of the pBTTT Family”

Kevin Drummey, Virginia Tech

Title: “Doubly-Charged DABCO Salt-Containing Building Blocks for Synthesis of Ion-Containing Polymers”

John Fennell, MIT

Title: “Wrap n”Sense: Di- and Trifluoromethylated Single-Walled Carbon Nanotubes Wrapped with Derivatized PEDOT Polymers for Nerve Agent Detection”



POLY Poster Award: (l-r)

K. Drummey (VT), R. Advincula (POLY Chair), J. Fennell (MIT)

Sponsored by



Nguyen and Slack Receive Video Award

The purpose of this award is to prepare young chemists to present their research and interact with a broad range of audiences, including more senior scientists and the general public. To be eligible, students submit a 3-minute video describing their research to a non-technical person. Videos from all of the finalists were shown during the ACS National Meeting in Boston, MA and posted online.

Congratulations 2015 Fall Video Awardees

Ha Nguyen, University of Florida

Title: Biorenewable Plastics

www.youtube.com/watch?v=J7tv2BmNkH4

John Slack, Vanderbilt University

Title: Electrospun Nanofiber Fuel Cell MEAs

https://www.youtube.com/watch?v=JtmYE8o_Yjw&feature=youtu.be



Video Award Presentation: (l-r)

R. Advincula (POLY Chair), and H. Nguyen (University of Florida)

View All Videos On-line: <http://www.polyacs.org/1124.html>

Upcoming Award Deadlines

Outstanding Poster Award

Application Due: 10/12/15

Sponsored by: Albemarle

Purpose: Increase the importance and visibility of posters being presented at ACS National Meetings in the POLY section.

Biomacromolecules/Macromolecules

Young Investigator Award

Application Due: 1/10/16

*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.

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.

POLY Fellows Award

Application Due: 11/30/2015

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.

Henkel Outstanding Graduate Research in Polymer Chemistry Award

Deadline - 1/31/2016

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.

POLY Video Award

Deadline - 2/28/2016

Sponsored by: POLY

Purpose: To prepare young chemists to present their research in a short video/movie format and interact with a broad range of audiences, including senior scientists and the general public. The presentation should be geared toward a lay person.

Award Information:

[http://www.polyacs.org/
AWARDS.html](http://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
Case Western Reserve Univ.
Phone: 216-368-4242
sjr4@case.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.

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 2015 and are taking proposals from POLY members during 2015. Submit your idea TODAY!

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 Cafe 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

Membership Committee Report

Greetings POLY members. I am happy to report a new POLY/PMSE student chapter has been formed at the University of Minnesota and advised by Prof. Theresa Reineke. We look forward to their participation in POLY activities. In other news, the POLY membership committee is looking for new members. Anyone interested in volunteering should contact Kevin Cavicchi (cavicchi@uakron.edu) or Michael Meador (michael.a.meador@nasa.gov). The committee is especially interested in getting members interested in working on two targeted membership areas: industrial members and local section membership.

2015 POLY On-Line Elections

The 2015 candidate information is summarized below. Full statements and bylaw information can be reviewed on-line at www.polyacs.org. 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 2014 POLY Election was a huge success providing approximately 20.5% voting-membership participation (858). POLY anticipates a repeat performance in 2015.

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 <https://vtnw.com/go/POLY/>
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



Diana Gerbi
3M



Michael Meador
National Nanotechnology
Coordination Office

Candidates for Member-At-Large



Kevin Cavicchi
University of Akron



Mark Dadmun
University of Tennessee

Candidates for Councilor



Christine Landry-Coltrain
Kodak Research
Laboratories



Mary Ann Meador
NASA Glenn Research
Center

Candidates for Alternate Councilor



Michael Hickner
Oak Ridge National
Laboratory




Toby Nelson
Oklahoma State University

SPECIFIC POLYMERS

LOOK HERE!

WWW.SPECIFICPOLYMERS.FR



WE MAKE THE CUSTOM POLYMER/MONOMER YOU NEED

Monomers Functional Polymers

...NH₂ ...OH ...N₃ ...SH ...Cl ...Br

...C≡CH

...C₆F₁₃

...O-CH₂-CH=CH₂

...O-CH=CH₂

...O-CH₂-CH=CH₂ ...O-CH=CH₂

Functional Oligomers

Polymerizable functionality

GO TO OUR ONLINE CATALOG

More than 1000 building blocks, monomers and polymers

A Customer Service Team

That can tackle all your GPC needs!



Two simple ways to access the best expert technical support when you need it!

As a valued customer you are never far from the best in technical support for all your GPC hardware, software, and applications questions. Simply call or email our experts!

Phone: 800-366-4875 (option #4)
Email: EcoSECsupport@tosoh.com

New Additions to the Tosoh GPC Team!

Tosoh is pleased to announce it has expanded its team of GPC experts. Now more than ever we are setting the standard of excellence in expert customer service as we welcome to our team:

Dave Olenski: Product Manager I, GPC
Justin Timmons: GPC Customer Service Specialist



Tosoh Bioscience and EcoSEC are registered trademarks of Tosoh Corporation.

TOSOH BIOSCIENCE
www.tosohbioscience.com



Industrial Advisory Board

The Polymer Division Industrial Advisory Board (IAB) continues to support on-going polymer-related initiatives for education, awards and programming. The IAB also provides a forum to make the needs and views of the industrial community known to POLY. In particular, we continue to provide recommendations to POLY on future programming topics and structure. In addition to programming, the currently funded activities of the Board include the Industrial Polymer Scientist Award, Student Travel Awards, Undergraduate and Graduate Research symposia, and special events. The IPS Award recognizes outstanding industrial innovation and creativity in the application of Polymer Science, conducted by individual scientists or research teams and will be recognized at a symposium Fall 2016. More details are available online at: <http://www.polyacs.org/256.html>.

The Graduate Student Travel Awards are organized by the Polymer Division Membership Committee and sponsored by the POLY Industrial Advisory Board. The Travel Awards are given at each ACS meeting to provide funding for polymer graduate students for travel to the National ACS meeting to present the results of their research. The Fall 2015 awardees include Olivia Durham (Clarkson University) title: "Functional Polymer Particles Prepared by "Click" Thiol-Ene and Thiol-Yne Suspension Polymerizations", and Keren Zhang (Virginia Tech) title: "Nucleobase-Functionalized Acrylics with Enhanced Mechanical Strength and Processability: From DNA to Supermolecular Adhesives". 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/>.

The IAB continues to grow its programming in an effort to increase value of ACS Meetings for its industrial members. For the 2016 spring ACS Meeting in San Diego, CA, a symposium titled Industrial Research at the Interface of Inorganic Chemistry with Polymer Science and organized by Laura Stratton and Nora Radu is planned for Sunday afternoon. A Monday afternoon session of Industrial Innovations in Polymer Chemistry: Innovations in Sustainable Industrial Practices for Polymer Production and Formulations, organized by Louis Pitet and Andy Meyer will be followed by an expanded Monday afternoon networking event.

The IAB Meeting will be held Tuesday morning (7:30am – 9:00am). We are always interested in new ways to serve the POLY industrial community and welcome your suggestions and attendance at our networking event or Tuesday morning board meeting.

For more information on the Industrial Advisory Board, contact Co-chairs: Travis Baughman (DSM) travis.baughman@dsm.com or Diana Gerbi (3M) djgerbi@mmm.com.



Travel Award: (l-r)
M. Hunt (IAB Membership Chair), R. Advincula (POLY Chair), K. Zhang (Virginia Tech), and O. Durham (Clarkson Univ.)

Annual Treasurer's Report

This table outlines the summary and status of the 2015 budget with respect to the current income and expenditures through September and is compared to the end-of-year figures for 2014 and approved 2015 budget. We continue to balance the budget and ensure that the expenditures are within the allocated figures agreed upon at the last 2015 Executive Committee meeting.

Any questions or requests may be directed to the POLY Division Treasurer, Derek Patton, derek.patton@usm.edu. All annual requests for funding should be submitted to the Treasurer by December 1, 2015 and will be reviewed for consideration at the POLY Executive Committee in January 2016.

Budget Category	2014 Actual		2015 Budget		2015 Actual to Sept. 1	
	Income	Expense	Income	Expense	Income	Expense
ACS Dues/Awards/ Allocations	216,281	42,613	268,950	45,350	191,867	27,732
National Meetings Activities	74,962	148,745	66,000	144,500	39,940	60,085
Workshop Activities	164,157	109,275	408,600	366,600	210,228	48,035
Administrative	2,372	158,986	0	169,000	35	146,067
Publications & Advertising	21,547	21,955	21,500	20,600	26,075	9,223
Committee Activities	18,996	30,911	16,000	35,000	17,000	13,961
Total Budget	498,315	512,485	781,050	781,050	485,145	305,103
Budget Delta	-14,170		0		180,042	

Filling the gap in High Temperature GPC Technology



From the most comprehensive solution
for a **research environment**



To the most simple-to-use design for
Quality Control in plants

www.polymerchar.com

GPC-IR®

The most advanced high-temperature GPC/SEC system dedicated to polyolefins.

- Fully automated sample preparation, dissolution and analysis for up to 42 samples.
- Automated in-line filtration with backflush cleaning.
- Sample care protocols to preserve the sample integrity.

GPC-QC

A compact GPC for Quality Control and process control in polyolefin production.

- Fully automated sample preparation, dissolution and analysis for 1 sample at a time.
- One sample analyzed in less than 30 minutes, including dissolution.
- Especially useful for multi-reactor resins.

High sensitivity IR Detectors, IR4 or IR5 MCT, for concentration and short chain branching information,
Outstanding repeatability thanks to the full automation and the detectors feasibility.

14th Pacific Polymer Conference - PPC-14

December 9-13, 2015
Grand Hyatt * Kauai, Hawaii USA

<http://ppc14.org>

INTRODUCTION AND INVITATION

The First Pacific Polymer Conference, organized by the Pacific Polymer Federation in 1989, was designed to bring together polymer scientists from the Pacific region and from other parts of the world to discuss and exchange recent advances in polymer science, in polymer technology and the application of polymers. Successful conferences have been held every two years in different countries since that time. Currently, every 10 years the US scientists are responsible for organizing the conference in Hawaii, since it can be held prior to Pacificchem. Thus, this conference will be the fourth organized by the US; prior conferences were held in 1989 (Oahu), in 1995 (Kauai), and in 2005 (Maui).

Pacific Polymer Federation Chair and President.

Krzysztof Matyjaszewski
(Carnegie Mellon University)

Treasurer and Secretary of Pacific Polymer Federation

William H. Daly (LSU)

Program Committee Chair

Rigoberto Advincula (CWRU)

Organizing Committee

Kenneth Wynne (VCU)
Peter Zarras (US Navy)
Robert B. Moore (VT)
H. N. Cheng (USDA)
Greg Tew (UMASS)
Tim Lodge (UMINN)



SESSIONS

1. POLYMER SYNTHETIC CHEMISTRY

- A. Precision Synthesis by Controlled Techniques: Karen Wooley, Craig Hawker
- B. Hybrids, Ken Wynne, Yoshiki Chujo, Frank Blum, Rick Laine

2. BIO-RELATED POLYMERS

- A. Drug Delivery and Bio-Inspired Materials: Carmen Scholz, Greg Tew, Semra Colak, Martina Stenzel
- B. Bio-Conjugates: Brent Sumerlin, Heather Maynard

3. POLYMER PHYSICS/PROCESSING

- A. Computation/Simulation/Theory: Anna Balazs, Michael Rubinstein
- B. Advanced Processing: Joe DeSimone, Paul Nealey, Sue Mecham
- C. Gels and Networks: Tim Lodge, Chris Bowman

4. ENERGY

- A. Membranes, Batteries, and Fuel Cells: Benny Freeman, Mike Hickner, Sue Mecham
- B. Photoconductive, OLEDs, Solar, etc., Alex Jen, John Reynolds
- C. Graphene and Carbon Nanocomposites: Gobet Advincula, Liming Dai

5. ENVIRONMENT

- A. Sustainable Systems and Renewable Resources: Marc Hillmyer, Chuanbing Tang
- B. Specialty Coatings for Marine and Aerospace Environments: Peter Zarras, Jamil Baghdachi, Ken Wynne, James Callow, Maureen Callow

6. SPECIAL TOPICS

- A. Polyolefins: Phil Hustad
- B. Smart, Responsive, and Self Healing and Shape Memory: Marek Urban, Stuart Rowan
- C. Fluorine and Silicon Containing Polymers: Joe Mabry, Scott Iacono

Sponsors

ACS Macro Letters

BioMACROMOLECULES

Biomaterials Science

Materials Horizons

Journal of Materials Chemistry B



Gelest
Enabling Your Technology

J&I
Japan Analytical Industry Co., Ltd.



Kimberly-Clark

Macromolecules



WILEY-VCH

2016 Polymer Division Workshops

Sustainable Polymers

May 22 - 25, 2016
Safety Harbor Conference Center, Safety Harbor, FL

Co-Chairs

Dylan J. Boday, IBM Materials Engineering
Email: dboday@us.ibm.com

Marc A. Hillmyer, Center for Sustainable Polymers, UMN Dept. of Chemistry
Email: hillmyer@umn.edu

Polymer Composites & High Performance Materials

July 25 - 28, 2016
Hilton Sonoma Hotel, Santa Rosa, CA

Organizers

Sarah E. Morgan, University of Southern Mississippi
E-mail: sarah.morgan@usm.edu

Daniel A. Savin, University of Florida
E-mail: savin@chem.ufl.edu

Mary Ann Meador, NASA Glenn Research Center
E-mail: maryann.meador@nasa.gov

Michael A. Meador, National Nanotechnology Coordination Office

E-mail: mmeador@nnco.nano.gov

Jeffrey W. Gilman, NIST

E-mail: jwgilman@nist.gov

Frederick R. Phelan, Jr., NIST

E-mail: frederick.phelan@nist.gov

Fluoropolymer 2016

October 2-5, 2016
Harrah's Hotel and Conference Center, New Orleans, LA

Co-Chairs

Scott Iacono, U. S. Airforce Academy
E-mail: scott.iacono@usafa.edu

Bruno Ameduri, CNRS
E-mail: bruno.ameduri@enscm.fr

Polymers for Global Oil and Gas Applications

November 6-9, 2016
Houston TX

Chairs

Pal Arjunan, Eureka-GlobChem Consultants
E-mail: arjunan.pal@gmail.com

Erin B. Murphy, Kraton Polymers LLC.
E-mail: erin.murphy@kraton.com

Rigoberto Advincula, Case Western Reserve University
E-mail: rca41@case.edu

Silicon-Containing Polymers and Composites

December 2016
San Diego, CA

Chair:

Joseph M. Maybry
Air Force Research Laboratory
E-mail: joseph.mabry@us.af.mil

Organizing Team:

Stephen Clarson, University of Cincinnati
Kenneth J. Wynne, Virginia Commonwealth Univ.
Gregory Yandek, Air Force Research Lab
Anish Tuteja, University of Michigan
Scott Iacono, US Air Force Academy
Yoshiki Chujo, Kyoto University
Richard Laine, University of Michigan

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

2016 National Graduate Research Conference

June 12-15, 2016
University of Akron, Akron, OH
Hosted by: **Eric Amis**

Organizing Committee:

Nicole Zacharia (nzacharia@uakron.edu)
Abraham Joy (abraham@uakron.edu)
Toshi Miyoshi (miyoshi@uakron.edu)
Younjin Min (ymin@uakron.edu)

POLY/ACS National Meeting Activity

POLY Program Chairs

Malika Jeffries-EL
Iowa State University
malikaj@iastate.edu

Corinne Lipscomb
3M
celipscomb@mmm.com

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

Additional POLY Session Information

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

Interested in Organizing a POLY Symposium?

- 1) Download the symposium proposal template at <http://www.polyacs.org/8.html#nationalmeetingpreprintabstract>.
- 2) Fill in your and your co-organizers names and contact information as well as details about the symposium.
- 3) Email to the POLY Program Chairs

251st ACS National Meeting

ACS Theme: Computers in Chemistry
March 13-17, 2016, San Diego, CA
Primary Program Chair:
Timothy White

- 13th International Symposium on Biorelated Polymers
- Anionic Polymerisation – Still Living After 60 Years
- Applications of Polymer Surfaces and Interfaces
- ‘Click’ Reactions for Producing Advanced Materials
- Controlled Depolymerization
- ACS Award in Polymer Chemistry Symposium in Honor of Edmund M. Carnahan (Dow Chemical)
- Excellence in Graduate Polymer Research
- Flory Polymer Education Award
- General Topics: New Synthesis and Characterization of Polymers
- Industrial Innovation in Polymer Chemistry: Sustainable Polymerization Feedstocks and Process Technology
- Industrial Research at the Interface of Inorganic Chemistry and Polymer Science (with INOR)
- Kathryn C. Hach Award for Entrepreneurial Success - Starting a Company on University Technology (Geoff Coates)
- Kipping Award Symposium in Honor of Mike Brook
- Polymer Additive Manufacturing: Materials, Processes, and Simulation
- Polymer Applications and Characterization in Medical Devices Industry
- Responsive Nanostructures and Nanocomposites
- Supramolecular Polymers: From Structure to Advanced Functionality
- Sustainable Polymers, Processes, and Applications
- Undergraduate Research in Polymer Science

252nd ACS National Meeting

ACS Theme: Chemistry of the People, by the People and for the People
August 21-25, 2016, Philadelphia, PA
Primary Program Chair:
Malika Jeffries-EL

- 3rd Symposium on Poly(2-oxazoline)s and Polypeptoids
- Advances in Functional Polymers with Sophisticated Branched Structures
- Biomacromolecules/Macromolecules Young Investigator Award Symposium
- Designing Functional Biomaterials: Connecting Experiment with Theory and Simulation (COMP)
- Functional Renewable Polymers
- General Topics: New Synthesis and Characterization of Polymers
- Industrial Innovations in Polymer Chemistry
- Industrial Polymer Scientist Award Symposium
- Materials Genome
- Polymer Science for Everyday Things: Polymers for Beauty Sports and Leisure
- Polymer Science at the Interface of Industry, Government, and Academics
- Polymeric Materials as Imaging Agents and Theranostics (NUCL)
- Sequence-Controlled Polymers

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, Robert Moore, & J. Pochan

Council selected members for the elected committees of council including the petitions on Member Expulsion and Preferential Voting for National Office along with the Council approved procedures for the above. Council also approved International Chapters for Australia, Brazil, Nigeria, Peru, and United Arab Emirates. Ballots for President-Elect, Members-at-Large (only Councilors vote), and Districts I and V will be on the fall ballots. Council also selected members for the Committee on Committees (CoNC), Council Policy Committee (CPC) and Nominations and Elections (N&E).

Meetings and Expositions (M&E)

(John Pochan): M&E accepted 9,271 papers for the 250th National Meeting in Boston, MA. The total attendance for this meeting was 13,660. The Exposition had 475 booths with 325 exhibiting companies.

ACS was recognized in *Convene Magazine's* August 2015 annual Best in Show issue for "Best Corporate Social Responsibility Initiatives". In our continuing efforts to green the national meetings, M&E confirmed its conversion to electronic versions of the program book starting with the Spring 2016 meeting. The hard copy program book will be available for attendees to purchase (at cost) when they register for the meeting and onsite. The PDF version of the national meeting program will be more prominently displayed on the ACS website for those who would like to print portions for themselves. M&E has established a new sub-committee titled "operations" which is responsible for monitoring the financial success of the national meetings, compliance with the

National Meeting Long Range Financial Plan and the recommendations of the 2015 Task Force on Implementing National Meeting Financial Targets.

Council Policy Committee (CPC)

(Frank Blum): CPC finalized the language for the Member Expulsion bylaw change and is also working on some long range planning for consideration of how Council is partitioned with Division and Local Section Councilors. Currently, 20% of Council is represented by Division Councilors. This may be an important topic for Divisions in the future.

Divisional Activities Committee (DAC)

(Mary Ann Meador): recently completed a review of a white paper to help Divisions identify, evaluate, and pursue international engagement opportunities, and also voted to fund 14 Innovative Project Grants (IPG) totaling \$77,050, including one submitted by POLY IAB to engage industrial members.

The Multidisciplinary Program Planning Group is proposing the following 2018 national meeting themes to the Divisions for their consideration: Nexus of Food, Energy and Water (Spring/New Orleans), and Nanotechnology (Fall/Boston).

Membership Affairs Committee (MAC) reported that as of July 31, the ACS membership was 156,561; 2,055 fewer than on the same date in 2014. The number of new members who have joined this year is 14,457; 147 fewer than this time last year. The Society's overall retention rate is 84%. The number of international members has increased to 25,989; 1,014 higher than in July, 2014. The international retention rate is 85%.

Future ACS National Meetings

251nd - March 13-17, 2016
San Diego, California
Theme: Computers in Chemistry

252nd - August 21-25, 2016
Philadelphia, Pennsylvania
Theme: Chemistry of the People,
by the People and for the People

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

Lipscomb Named Program Chair

Congratulations to Corinne Lipscomb, 3M, for being selected as the newest POLY Program Chair. One new POLY Program Chair is selected annually to serve a 3 year term to organize and implement POLY Programing at ACS National Meetings.





In Memory of Robert Marchessault

On September 16, 2015, the day of his 87th birthday, Dr. Robert H Marchessault died peacefully at the Sunrise Residence in Dollard Des Ormeaux QC after a lengthy and courageous battle with Alzheimer's disease. Dr Marchessault was an Officer of the Order of Canada, Professor Emeritus at McGill and past vice president of Xerox Research Canada.

Dr. Marchessault was influential in the advancement of scientific research, he was the recipient of the Anselme Payen award (1976) and elected as a fellow to the Canadian academy of science (1982). His life was dedicated to his love of research. He was an ACS member for over 59 years and joined the Division of Polymer chemistry in 1970 and remained a member for 38 years. He had a passionate belief in education that is rooted in the rigors of a given discipline, but that encourages individuals with inquiring minds to seek answers with creativity and in response to the needs of a rapidly changing world.

Dr. Marchessault leaves his friend, partner and wife of 63 years, Mary. Also left to mourn are his children: Robert (Theresa), Nicole, Claude (Denise), Janine (Phil), Kim (Suzanne) and Pierre plus ten grandchildren as well as his brother Doug (Norma) and his ex-son in law Pino Santilli. Many thanks go to the caring staff at Sunrise for their kindness to "Dr. Bob".



In Memory of Eli Pearce

Eli M. Pearce, 86, a retired research professor at New York University Polytechnic School of Engineering and a past-president of the American Chemical Society, died at a Brooklyn hospital on May 18 of complications from a broken hip and kidney disease.

"Eli was extraordinary in so many ways—a brilliant polymer scientist, a great leader at his university and within ACS, a passionate advocate for chemistry education reform, and a man who worked tirelessly his entire life for everyday chemists and to ensure that women and minorities had equal opportunities for advancement in society and in their professions," says Madeleine Jacobs, former ACS executive director and chief executive officer who worked closely with Pearce.

Born Eli Perlmutter to Russian immigrants, Pearce changed his name as a young man to circumvent anti-Semitism in the working world. He received a B.S. degree in chemistry from Brooklyn College in 1949 before serving in the Army during the Korean War. Pearce earned a Ph.D. in chemistry from Polytechnic Institute of Brooklyn (now NYU Polytechnic School of Engineering) in 1958, studying under polymer chemistry pioneer Herman F. Mark and completing his thesis with Charles G. Overberger. Early in his career, Pearce worked for DuPont, J. T. Baker, and Allied Chemical before becoming director of the Dreyfus Laboratory at Research Triangle Institute. In 1974, Pearce accepted an invitation from Mark to join the faculty at Polytechnic Institute of Brooklyn. Pearce was named University Professor of Chemistry & Chemical Engineering in 1990; he served as director of the Polymer Research Institute from 1980 until 1996 and as dean of arts and sciences from 1982 until 1990. He published more than 250 papers on his research, which focused on polymer synthesis, degradation, and flammability.

An emeritus member of ACS, Pearce served as the society's president in 2002 and director-at-large on the ACS Board of Directors from 1999 until 2000 and again from 2001 until 2003. He was actively involved in the Division of Polymer Chemistry serving as Vice-Chair 1978, Chair-Elect, 1979, and Chair 1980. He served as POLY ACS Councilor from 1982 to 1998 and an ex officio councilor from 2004 until 2015.

Pearce garnered many awards, including the Paul J. Flory Polymer Education Award 1992, POLY Special Service Award 1999, H. F. Mark Medal from the Austrian Research Institute for Chemistry & Technology 2006, and in 2009, he was named an ACS Fellow. Pearce was a strong supporter of the ACS Committee on Minority Affairs and the ACS Scholars Program and was instrumental in establishing the Senior Chemists Committee.

Pearce's wife, Judith, to whom he was married for 32 years, died in 2012. He is survived by his son, Russell; his daughter, Debra Pearce-McCall; his stepson, Michael Ruby; his stepdaughter, Elizabeth Ruby Lyden; and 10 grandchildren.



division of polymer chemistry, inc
American Chemical Society



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

Visit the POLY website - We have what you are looking for!

Home | MAIN MENU | Workshops and POLY Sponsored Meetings | National Meeting Activity | Additional Meetings of Interest | AWARDS | JOBS

Membership Benefits and Questions

Contact the Polymer Division Business Office
for all your POLY membership questions!

ACS Division of Polymer Chemistry, Inc.
American Chemical Society
Virginia Tech
103 Surge Bldg., MC 0279
Blacksburg, VA 24061
Phone: (540) 231-3029
Fax: (540) 231-2588
E-mail: KATHYL@VT.EDU

POLY Advertising

Looking for new ways to advertise? For
additional information regarding advertising in
this publication, or sponsoring a POLY award or
workshop, please contact:

Kathy L. Mitchem
ACS Division of Polymer Chemistry, Inc.
Virginia Tech, 103 Surge Bldg., MC 0279
Blacksburg, VA 24061
Phone: 540-231-3029
Fax: 540-231-2588
E-mail: kathyL@vt.edu

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.

Division of Polymer Chemistry Executive Committee

CHAIR

RIGOBERTO ADVINCULA
Case Western Reserve University
216-368-4566
rca41@case.edu

CHAIR-ELECT

KARL HAIDER
Covestro
412-413-5904
karl.haider@covestro.com

VICE-CHAIR

MARC HILLMYER
University of Minnesota
612-625-7834
hillmyer@umn.edu

SECRETARY

CHER DAVIS
Chemical Science Division, NIST
301-975-8541
cher.davis@nist.gov

TREASURER

DEREK PATTON
University of Southern Mississippi
601-226-4229
Derek.patton@usm.edu

PAST CHAIR

KATHRYN BEERS
Materials Science & Engineering
Division, NIST
301-975-2113
kathryn.beers@nist.gov

MEMBER-AT-LARGE

MICHAEL MEADOR
National Nanotechnology
Coordination Office
703-292-5166
mmeador@nnco.nano.gov

COUNCILORS

FRANK BLUM
Oklahoma State University
405-744-5920
fblum@okstate.edu

MARY ANN MEADOR

NASA Glenn Research Center
216-433-3221
maryann.meador@nasa.gov

ROBERT B. MOORE

Virginia Tech
540-231-6015
rbmoore3@vt.edu

JOHN POCHAN

Graphenix Development Inc.
585-739-0311
johnpochan@hotmail.com

ALTERNATE COUNCILORS

BRENT SUMERLIN
SEMRA COLAK
MICHAEL HICKNER
CHRISTINE LANDRY-COLTRAIN

BUSINESS OFFICE

Division of Polymer Chemistry
103 Surge Bldg., MC 0279
Virginia Tech
Blacksburg, VA 24061
540-231-3029
kathyL@vt.edu
WWW.POLYACS.ORG

**TIME-CRITICAL CONFIDENTIAL
PROBLEM SOLVING SINCE 1973**

- CHEMICAL ANALYSIS AND CHARACTERIZATION
- THERMAL ANALYSIS AND REOLOGY
- MECHANICAL TESTING
- ORGANIC SYNTHESIS
- LAB COMPOUNDING, PELLETIZING AND INJECTION MOLDING
- FAILURE ANALYSIS
- QUALITY ASSURENCE
- CHEMICAL RESISTANCE
- ACCELERATED WEATHERING
- FDA EXTRACTIONS
- R & D



- PLASTICS
- POLYMERS
- RUBBER
- ASTM

PHONE: 281-879-8600
FAX: 281-879-8666

10626 KINGHURST
HOUSTON, TX 77099



POLYHEDRON
LABORATORIES, INC.
<http://www.polyhedronlab.com>

polyMATERIALS
creative polymer technologies



TURNING IDEAS INTO MATERIALS

- Polymer Synthetic Research and Development
- Pilot Plant / Toll Manufacturing
- Compounding
- High Throughput Screening Injection Molding

www.polymaterials.de/english/

Contact Us: m.hunt@polymaterials.de (336) 314-1642

**POLYMERS • MONOMERS
GPC STANDARDS • PLASTICIZERS
CUSTOM SYNTHESIS • ANALYTICAL SERVICES**

CALL FOR YOUR FREE CATALOG TODAY!



SCIENTIFIC POLYMER PRODUCTS, INC.

6265 DEAN PARKWAY (585) 265-0413
ONTARIO, NY 14519 FAX (585) 265-1390

WWW.SCIENTIFICPOLYMER.COM



American Polymer Standards Corporation
8680 Tyler Blvd., Mentor, OH 44060

Phone: (440) 255-2211 * Fax: (440) 255-8397

www.ampolymer.com

★GPC/SEC Analysis (Organic & Aqueous)

★GPC/SEC Polymer Standards (Organic & Aqueous)

★GPC/SEC Columns & Column Regeneration

Visit Our Website for Full Product Listings

Printable PDF of catalog available on website



**DIMENSION TECHNOLOGY
CHEMICAL SYSTEMS, INC.**

Versatile Catalyst for Thermosets

Accelerates Reactions of Anhydrides,
Carboxylic Acids and Imides with Epoxy
Resins

Available in Production and Research
Quantities

Contact our Sales Department at:
Sales@DTCS-Hycat.com/916-428-7525

www.hycat.com



**Place Your Advertisement
HERE!**

*Circulated to over 4,000
polymer scientists around
the world
twice annually.*

For more Information:

Kathy Mitchem
POLY Business Office:
Phone: 540-231-3029
E-mail: KATHYL@VT.EDU