





2021 POLY Chair Andrea Kasko

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Chair's Message

Awards

# OLY NEWSLETTER

**American Chemical Society Division of Polymer Chemistry, Inc.** 

Fall 2021

It is my great pleasure and honor to serve as the 2021 Chair of the Division of Polymer Chemistry (POLY). It is an incredibly interesting time to be a polymer chemist/scientist, as the work we do crosses so many disciplines. This past year, we've seen many polymer scientists pivot their research towards solutions for the COVID pandemic, whether it be in PPE manufacturing and sterilization for re-use: understanding spike protein structure.

or delivering mRNA vaccines, to name a few. I have always been proud to call myself a chemist and a scientist, but never more so than in the past year and a half. I consider myself fortunate to be working with POLY's outstanding Executive Committee and Business Office staff as we navigate this transitional year. POLY would not exist without the enthusiasm and commitment of our many volunteers - not only those on the Executive Committee, but also the Programming team, the awards committees, the symposium, workshop and webshop organizers, our committees and subcommittees, and the leaders of our student chapters. It has been a challenging year for all of us, and I am deeply grateful to each and every volunteer for their time and efforts this year.

After the cancellation of the National ACS meeting in Spring 2020 due to the COVID pandemic, and holding the next two national meetings virtually, in August, ACS and the Division of Polymer Chemistry held the first hybrid National meeting in Atlanta, Georgia. The hybrid format allowed flexibility for those across the globe to interact both virtually and in person. The theme of the National meeting -Resilience of Chemistry - was truly representative of the spirit of the meeting, which displayed the resilience of chemists in coming together. Through all of the talks and posters at the meeting, it truly has been a celebration of chemistry. POLY held several awards sessions, including the Herman F. Mark Award in honor of Kristi Anseth, the Overberger International Prize in honor of Zhenan Bao, the Young Industrial Polymer Scientist Award in honor of Victoria Piunova, the Henkel Award for Austin Evans, and the DSM Science and Technology Award, presented to Andrea Westlie from Colorado State University. Several POLY members were also selected as ACS Fellows: Thomas H, Epps III (University of Delaware), Heather D. Maynard (UCLA), Dimitris Katsoulis (Dow), and Seth C. Rasmussen (North Dakota State University).

Even though our members were unable to travel through most of 2021, POLY was able to connect its members through several webinars, webshops, and other virtual activities, including the virtual webshop "Stimulus-Responsive Polymers and Liquid Crystal Elastomers" held live in April 2021 and slated for rebroadcast in October 2021; the National Graduate Polymer Conference held virtually in July 2021, and the webinars "Polymers of the Pandemic" in June 2021 and "designing Bio-Sourced Polymers that enable Recycling" in July 2021. POLY will resume in-person workshops later this Fall or next year, depending on the public health landscape.

The Spring ACS meeting in San Diego will be a hybrid meeting, in order to serve both those who wish to travel and those who wish to participate remotely/virtually. Keep an eye out for a great slate of programming from POLY, and I am looking forward to seeing old and new colleagues in person again. Take care, and may we meet again soon.

Councilors' Rpt.

Treasurer Rpt.

November 1 Mark Scholar Awards Deadline

October 25

**Stimulus** 

Webshop

**Re-broadcast** 

November 1 MACROMEX November 14 **CRP POLY** Workshop

**POLY Diversity Statement:** 

We believe in the strength of diversity in all its forms, because inclusion of and respect for diverse people, experiences, and ideas lead to superior solutions to world challenges and advances polymer chemistry as a global, multidisciplinary science.

> November 30 **POLY Fellows** Award Deadline

**December 1** Silicon-**Contianing POLY** Workshop

Webinars **Elections** IAB **TOSOH** Conf. Workshops **NGRPC 2021** Student Chpts. MARCO Edu. National Mtg. Programming

In Memoriam

## Fall 2021 POLY AWARDS

The POLY/PMSE awards reception was held virtually on Wednesday evening during the ACS National Meeting honoring outstanding achievements by its members. 2021 POLY Chair, Andrea Kasko (UCLA) and the 2021 PMSE Chair, Timothy Bunning (Air Force Research Laboratory) had the pleasure of congratulating this year's plenary speaker and POLY/PMSE award recipients.



### POLY/PMSE Plenary Lecture Plenary Speaker

Julia A. Kornfield Elizabeth Gilloon Professor of Chemical Engineering at Caltech

Presentation Title: "Polymers and Nanocomposites to Treat Vascular Disease without a Trace"



## Herman F. Mark Polymer Chemistry Award

Kristi Anseth, University of Colorado at Boulder

For Outstanding Research and Leadership in Polymer Science



## **Charles G. Overberger International Prize**

Zhenan Bao, Stanford University

Recognizes and Encourages Accomplishments of Unusual Merit in the Field of Basic or Applied Polymer Science, from Researchers from Anywhere in the World

Sponsored by



macro 🚕 ACS





## Young Industrial Polymer Scientist Award

Victoria Piunova, IBM

For Outstanding Industrial Innovation and Creativity in the Application of Polymer Science



Sponsored by POLY Industrial Advisory Board

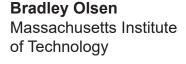


## 2021 ACS Macro Letters/Biomacromolecules/ Macromolecules Young Investigator Award

Recognizes Two Individuals, Early in their Careers, Who Have Made a Major Impact on the Field of Polymer Science



Sponsored by



ACS Macro Letters



Haritz Sardon POLYMAT/ University of the Basque County

MACROMOLECULES Macromolecules



Henkel Award for Outstanding Graduate Research in Polymer Science & Engineering Austin Evans, Columbia University



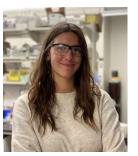
To Recognize a PhD Graduate Student or Recent Graduate who has Completed an Outstanding PhD Thesis in Research at a University in the US or Canada

## **DSM Bright Science Award for PhD Students**

To Recognize and Reward Excellence in Innovative PhD Research in Polymer Technology



Jacob Lessard University of Florida



Kathryn O'Harra University of Alabama



**Beniamin Paren** University of Pennsylvania





Andrea Westlie Colorado State University **GRAND PRIZE** 



### POLY Members who Received the 2021 ACS Fellows Award

The ACS Fellows Program was created to recognize members of ACS for outstanding achievements in and contributions to science, the profession, and the Society. Click to view a full list of awardees: https://www.acs.org/content/acs/en/ funding-and-awards/fellows/list-of-2021acs-fellows.html

Thomas Epps III Univ. of Delaware

Dimitris Katsoulis Dow



Heather D. Maynard Univ. of California, LA



Seth C. Rasmussen North Dakota State Univ.

# 2021 Spring POLY Outstanding Poster Award

### Rosalie Berg

University of Houston Sustainable Epoxy Resins Derived from Syringic Acid and Mixtures of Lignin Monomers

### Shrabana Sarkar

Indian Institute of Technology Self-healable and Recyclable Nitrile Rubber via Dual Dynamic Covalent Chemistry

### Julia Smith

University of Wisconsin-Madison High Grafting Density Polymer Brush Growth from a Switchable Inimer Coating for SI-ATRP and SI-RAFT

## 2021 Fall POLY Outstanding Poster Award

### Archana Bansode Auburn University

Synthesis of Biobased Phenol-Formaldehyde Wood Adhesives from Biorefinery Derived Lignocellulosic Biomass

### Sheng Li University of Toronto

Selenophene and Thiophene based Conjugated Polymer Gels

### Gustavo Munoz Mississippi State University

Synthesis and Characterization of Polyaryl Ethers containing Hexafluoroisopropylidene Enchainment via Direct Friedel-Crafts Polymerization of Diaryl Ethers and Hexafluoroacetone Hydrate

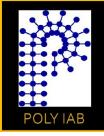
Sponsored by MRS Communications

## Springer

Special thanks to Wei Gao and Volunteer Judges

# POLY GRADUATE STUDENT TRAVEL AWARD

The POLY Graduate Student Travel Award was established to provide funding for graduate students studying polymer science at US Institutions to travel to national ACS meetings and present their results (poster or oral presentation). POLY offers 2 travel awards for each ACS National Meeting for a total of 4 awards a year. These awards are generously supported by the POLY Industrial Advisory Board of the ACS POLY Division. Awardees receive a \$750 award to be applied to costs associated with registration, travel, and accommodations at the national ACS meeting at which they are presenting. Graduate students who are both members of the ACS and the Division of Polymer Chemistry, who currently study at U.S. institutions, are only eligible for this travel award. Awards are based on merit and on an applicant making his/her first presentation, with financial need also taken into consideration. View more information online at https://polyacs.org/poly-graduate-student-travel-awards/



POLY Industrial Advisory Board



Yiming Hu Univ. of Colorado "Single Crystals of Mechanically Entwined Helical Covalent Polymers" Richard Ly Univ. of South Carolina "Poly(ethylene-copropylene) Grafted Silica Nanoparticles Prepared via Surface Initiated RAFT Polymerization"





Xiaoqian Wang Virginia Tech "Stereoselective electrochemical ring opening polymerization to synthesize functionalized polyesters"

Meng Zhang Louisiana State Univ. "Understanding the Role of Block Sequence on the Solution Aggregation of Polypeptoid Multi-Block Copolymers



## UPCOMING AWARDS DEADLINES https://polyacs.org/awards/

### Mark Young, Scholar, & Senior Awards

Deadline: 11/1/2021 Purpose: Recognize excellence in basic or applied research & leadership in polymer science by scientists of all ages.

### **POLY Fellows Award**

<u>Deadline</u>: 11/31/2021 <u>Purpose</u>: Recognize outstanding achievements in & contributions to polymer science & the profession. Henkel Award for Outstanding Graduate Research in Polymer Science & Engineering

<u>Deadline</u>: 1/25/2021 <u>Purpose</u>: Recognize a PhD graduate student or recent graduate who has completed an outstanding PhD thesis in research at a university in the US or Canada.

ACS Macro Letters/ Biomacromolecules/ Macromolecules Young Investigator Award

<u>Deadline</u>: 1/2021 <u>Purpose</u>: Recognizes two individuals, early in their careers, who have made a major impact on the field of polymer science.

### DSM Bright Science Award for Ph.D. Students

<u>Deadline</u>: 2/2021 <u>Purpose</u>: Recognize and reward excellence in innovative PhD research in polymer technology. Awards Committee Alan Hopkins Alan.R.Hopkins@aero.org

Semra Colak Atan scolak@mmm.com

Toby Nelson toby.nelson@okstate.edu

Additional Information CARLEEL@VT.EDU



### Alan Hopkins, New POLY Awards Chair

As POLY Awards Chair, Alan will oversee a team of volunteers to review submitted award packages, select awardees, report ongoing activity to the membership and make suggestions to improve the awards process to the POLY Executive Committee.



### **Recently Announced!**

## 2022 Paul J. Flory Polymer Education Award

### Timothy Long Arizona State University

In recognition of promoting undergraduate and/or graduate polymer education. A 1/2 day symposia and award presentation will be held at the Spring 2022 ACS National Meeting

# LIVE ACS/POLY CO-SPONSORED WEBINARS

The most recent POLY sponsored ACS Webinar was held on September 15, 2021. The webinar, **"Organocatalysts in Polymer Science,"** featuring <u>Prof. Robert Waymouth</u> of the Stanford University and <u>Prof. Andrew Dove</u> of the University of Birmingham, and was moderated by Prof. Rachel Letteri of University of Virginia. The webinar covered the topics including the design of organocatalysts for ring-opening polymerization, the application to mRNA delivery, and the use of organocatalysts for the step-growth polymerization and depolymerization. Over 500 live attendees in 58 countries asked nearly 100 questions at the conclusion of this webinar.



Andrew Dove Univ. of Birmingham



Robert Waymouth Stanford Univ.

Up next is an Industrial Advisory Board, POLY, and ACS collaborative webinar which will air live on Thursday, October 21, 2021. The webinar, "**Polymers and Nanomaterials for Reduced Emissions,**" featuring <u>Prof. Emily Pentzer</u> of Texas A&M and <u>Dr. Johann Plank</u> of the Technical University of Munich Germany, will be moderated by Dr. Peter Boul of Aramco and Dr. Laura Stratton of PCI. The following POLY-ACS collaborative webinar will be held on November 17, 2021. The webinar, "Polymers in Space" will feature Dr. Stephanie Vivod of NASA John H Glenn Research Center and Dr. Christopher Wohl of NASA, Langley Research Center.



**Emily Pentzer** Texas A&M Univ.



Johann Plank Technical Univ. of Munich

The format of this webinar series is to feature two twenty-five minute presentations followed by a moderated question and answer session. These webinars are hosted by rotating POLY members and are organized by the POLY Webinar committee composed of Brent Sumerlin, Tomonori Saito, and Laura Stratton. Typically attracting hundreds of attendees, these events are a popular benefit organized by POLY. The POLY Webinar committee has an exciting working list of topics and speakers, and we welcome your ideas for topics and speakers for future webinars. This year the POLY / ACS co-produced webinars expanded to include two additional webinars organized by the Industrial Advisory Board by Peter Boul.

Past webinars prior to 2020 are posted to the POLY YouTube channel. From April 2020 on, the webinars speakers and titles will be posted on the American Chemical Society Webinars website after the initial live broadcast.

### View Past POLY Webinars on YouTube

### View POLY/ACS Co-Sponsored Webinars

Do you have any webinar topics you would like to see? The webinar team would love to hear your ideas!

You can email Tomonori Saito (saitot@ornl.gov), Laura Stratton (laura@polychemistry.com), or Brent Sumerlin (sumerlin@chem.ufl.edu) with your suggestions.



## 2021 POLY ELECTION

The 2021 candidate information is summarized below. An e-mail will be sent to all voting members containing website and login instructions. If you do not have a current e-mail address on file with us, you will NOT be sent an election notice. Please make sure to send your updated e-mail address to Carlee Black (carleel@ vt.edu).

The 2020 POLY Election was a success providing approximately 22% voting-membership participation. POLY anticipates a repeat performance in 2021.

## Officer Duties (3 Year Term)

Vice-Chair Duties: Support the Chair and Executive Committee of the Division while acting as liaison for Division Committees. Become familiar with operations of the Division to prepare for the functions of Chair-Elect and Chair in succeeding years. Attend Executive Committee meetings and promote the interests of members, committees, and Executive Committee.

**Member-At-Large Duties**: Duties for this office include: Attend and participate, when possible, all Executive Committee and Board meetings. Provide input to Executive Committee and Board on membership needs and concerns. Coordinate Membership Committee and membership affair functions. Keep Secretary well informed on possible news items for Newsletter and website on membership activities. Function as the principal communication link between the membership and the Board and the Executive Committee. Identify problems or opportunities pertaining to the membership. Actively maintain a webpage for communication of important Member-at-Large activities with the membership. Work with staff to ensure good electronic communications with the membership. Assume various other duties as directed from time to time by Division Chair and/or Executive Committee.

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

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

### VOTING ONLINE IS EASY AS 1-2-3!

- 1. Watch for an e-mail sent from elections@votenow.com, containing your individual password on October 16th.
- **2.** Once you receive your e-mail, go online to complete the election ballot.
- **3.** If you do not receive an e-mail by October 20th or for additional questions, please contact the POLY Business Office at kathyl@vt.edu or call 540-231-3029.

### vice Chair Candidates





Dawanne Poree Army Research Lab.

Tomonori Saito Oak Ridge Nat. Lab.

### Member-At-Large Candidates





Katrina Knauer NREL

Exponent, Inc.

Councilor Candidates



Mary Ann Meador NASA GRC (Retired)

Alternate Councilor Candidates



Laura Stratton Polymer Chemistry Innovations, Inc.



Karl Haider Covestro, LLC.



**Yoan Simon** Univ. of Southern Mississippi







# For 2021 • EDUCATION

IAB supports educational initiatives relative to industrial needs.

- ACS Webinar on "Plastics Recycling" and "Polymers and Nanomaterials for Low Carbon Energy."
- 2021 Rocky Mountain Regional Meeting.
- POLY webshop on "Stimulus-Responsive Polymers and Liquid Crystal Elastomers."

## PROGRAMMING

In addition to providing strategic recommendations to ACS POLY on future programming topics, IAB facilitates increased industrial interaction with its own programming.

 In addition to the education work in the virtual medium mentioned previously, the Industrial Innovations in Polymer Science (IIPS) continues to be IAB's premiere symposium at each ACS Meeting.

## AWARDS

IAB recognizes outstanding industrial polymer scientists at every level of of their career.

- Industrial Polymer Scientist Award
- Young Industrial Polymer Scientist Award
- POLY Student Travel Awards
- Graduate and Undergraduate Research symposium awards



Corinne Lipscomb (3M), POLY IAB Chair

## NETWORKING

Building relationships with others in industry can be difficult given that companies do not typically facilitate these types of connections. IAB creates a neutral environment to building longterm relationships which are mutually beneficial to the company and employee.

# POLY Industrial Advisory Board (IAB)

The purpose of IAB is to enhance and foster industrial engagement and support to develop programming, awards and recognition, and education within the ACS Division of Polymer Chemistry.

# Networking for New Industry Employees

IAB has been organizing a New Industry Employee Networking group for 2021. This group is for young industrial employees who are five years or less into their career. It is organized and operated by them in an effort to gain insight about the field and build relationships which are mutually beneficial to both employee and company. Presently, five companies are represented.

- Topics of this years gatherings include:
- Introduction Session & Get to Know You Activity
- Unwritten Rules to Industry Success Panel Discussion
- Learning from YIPS Winners

# Join IAB

I would like to personally invite you to join the IAB to ensure that you and your company have a voice in divisional education, awards, and programming. In addition to the above, you will have:

- Increased visibility within the international polymer community, particularly in the USA.
- Opportunities to scout and recruit talent.
- Knowledge of what is on the forefront of polymer science & collaborative research.
- Advanced notice of symposia topics for ACS national meetings.
- Involvement in the development of scientific presentations at pertinent symposia.
- Corporate logos displayed on ACS meeting posters, the POLY Newsletter & at sponsored events.







# Tosoh Polymer Conference



### June 7-9, 2022 • Lowes Hollywood Hotel • Hollywood, CA • www.tosohpolymerconference.com

**TPC2022** is a three-day event, comprised of a one-day short course and a two-day conference, that focuses on advances in polymer science, including novel synthetic approaches to polymers/biopolymers, innovative applications of these materials, and the utility of advanced characterization techniques within this field.

Having held three previous events under the title Tosoh GPC Conference, we've renamed our bi-annual event the Tosoh Polymer Conference (**TPC2022**) to reflect the true diverse nature of our polymer conference. While the early meetings focused on GPC and advanced detection, we are now broadening the scope of our conference to target a more inclusive and captivating scientific discussion on polymer chemistry.

# **Register today** to learn about the latest innovations in polymer science from the top minds in Academia and Industry!



*Committee Co-Chair* Brent Sumerlin, Ph.D. *University of Florida* 



*Committee Co-Chair* Helen Tran, Ph.D. *University of Toronto* 

### **Confirmed Speakers**

Zhenan Bao, Stanford University Monica Olvera de la Cruz, Northwestern University Thomas Epps, University of Delaware Nathan Gianneschi, Northwestern University Craig Hawker, University of California, Santa Barbara Brett Helms, Molecular Foundry - Lawrence Berkeley National Laboratory Jeremiah Johnson, Massachusetts Institute of Technology Bekka Klausen, John Hopkins University Mahesh Mahanthappa, University of Minnesota lan Manners, University of Victoria Krzysztof Matyjaszewski, Carnegie Mellon University Alshakim Nelson, University of Washington Chinedum Osuji, University of Pennsylvania Joe Patterson, University of California, Irvine Emily Pentzer, Texas A&M University Rachel Segalman, University of California, Santa Barbara Molly Shoichet, University of Toronto Brent Sumerlin, University of Florida Helen Tran, University of Toronto Shu Yang, University of Pennsylvania



### **Scientific Committee**



Emily Pentzer, Ph.D. Thomas H. Epps, III, Ph.E Texas A&M University University of Delaware



Thomas H. Epps, III, Ph.D. Mahesh Mahanthappa, Ph.D. University of Delaware University of Minnesota



Nathan Gianneschi, Ph.D. University of Toronto

### **Confirmed Discussion Leaders**

Brooks Abel, University of California, Berkeley Chibueze Amanchukwu, University of Chicago Konane Bay, University of Colorado Boulder Cassie Callman, University of Texas at Austin Tristan Clemons, University of Southern Mississispin Ben Elling, Wesleyan University Julie Fenton, Penn State University Adrian Figg, Virginia Tech Sam Kristufek, Texas Tech University Jessica Lamb, University of Minnesota Benjamin McDonald, Brown University Nathan Romero, University of California, Irvine Erin Stache, Cornell University Aaron Teator, University of Kansas



3604 Horizon Drive, Suite 100, King of Prussia, PA 19406 Tel: 800-366-4875 email: tpc@tosoh.com View all upcoming POLY workshops by visiting the link below.

https://www.polyacs.net/ workshops

# 2021 ост

STIMULUS-RESPONSIVE POLYMERS AND LIQUID CRYSTAL ELASTOMERS October 25 – 29, 2021 Virtual, on-demand Organizers: Boul & Konkolewicz



MACROMEX 2021 November 1 - 4, 2021 Riviera Maya, Mexico Org: Lepe, Cruz, Advincula, & Cunningham

CONTROLLED RADICAL POLYMERIZATION November 14 - 17, 2021 Hotel Emeline, Charleston, SC Organizers: Matyjaszewski, Tsarevsky, Gao, & Sumerlin



SILICON-CONTAINING POLYMERS AND COMPOSITES December 1 - 4, 2021 Omni San Diego, CA Organizers: Furgal & Hartmann-Thompson

Workshop Committee Chair: Prof. Marc Hillmyer, hillmyer@umn.edu or contact Lesia Pristas: lesiar@vt.edu

# **POLY Workshops**

Amid the pandemic, we recognize the continued difficulty in committing to and attending events in person. However, POLY Members continue to provide feedback about their desire for in-person options as well as virtual and hybrid experiences for sharing ideas. POLY will be working hard to ensure safe and healthy events for everyone no matter the medium.

Following is our current slate of events. All offer an in person experience unless noted.

# 2022



POLYMER COLLOIDS February 19 - 22, 2022 Omni San Diego, California Organizers: Gao & Tsavalas

# MAY

POLYMERS FOR FUEL CELLS, ENERGY STORAGE AND CONVERSION May 15 - 18, 2022 Embassy Suites, Napa, California Organizers: Benicewicz, Zawodzinski, & Hickner

# JUN

POLYMERS AND FIRE June 5 - 8, 2022 Embassy Suites, Napa, California Organizers: J. Grunlan & Morgan

## SEP

ADVANCES IN POLYOLEFINS September 18 - 21 2022 Doubletree Rohnert Park, California Organizers: Klosin, Register, Wagener, & Soares

# ОСТ

POLYMERS AND NANOTECHNOLOGY October 16 - 19, 2022 Embassy Suites, Napa, California Organizers: Laine & J. Grunlan

POLYMERS IN MEDICINE AND BIOLOGY October 23 - 26, 2022 Embassy Suites, Napa, California Organizers: Reineke & Ratner

# 2023



FLUOROPOLYMER 2023 June 17 - 22 2023 Embassy Suites, Denver, Colorado Organizers: Iacono, Ameduri, & McCullum



SUSTAINABLE POLYMERS October 15 - 18, 2023 Safety Harbor Resort and Spa, Safety Harbor, Florida Organizers: Hillmyer, Epps, & Robertson

> Interested in submitting a workshop proposal?

Deadline is November 10, 2021

## IN REVIEW: NGRPC 2021





The National Graduate Research Polymer Conference (NGRPC2021) was hosted virtually by Virginia Tech in July 2021 with the main goal of bringing together polymer scientists and engineers from all subsets to share their science, foster collaborations, and network. The conference hosted 240 attendees from 50 different universities. 28 different sponsors from industry, government agencies, and academia enabled a fruitful career fair and tech expo while also enabling over \$7,000 in cash prizes for students.

The NGRPC2021 committee made up of 15 graduate students spent 3 years originally planning an in-person event and switching gears to a virtual event in early 2021, and ultimately planning a conference unlike any before it. A Gathertown interface created an engaging environment almost equivalent to an in-person event, where attendees could use avatars to virtually walk up to poster presenters and interact with our career fair and tech expo attendees. All attendees received a swag box filled with items befitting the sustainability theme of the conference. The banquet event featured a 3-course meal shipped to all participants from A Virtual Toast, where Director of MII, Bob Moore, and Director of Sustainability at P&G, John Layman, spoke about current goals and sustainability efforts. Conference chairs Emily Wilts, Priva Venkatraman, Brad Sutliff, and Phil Scott were honored to plan this event and are looking forward to the next NGRPC in 2023.



### NATIONAL GRADUATE RESEARCH POLYMER CONFERENCE 2021



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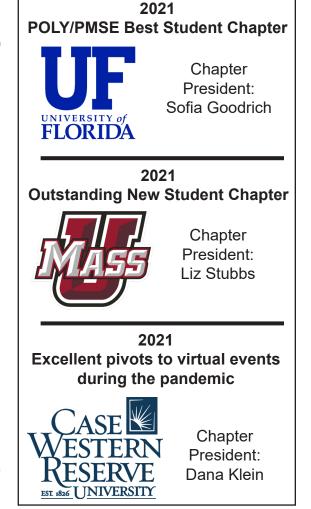
## POLY/PMSE STUDENT CHAPTERS

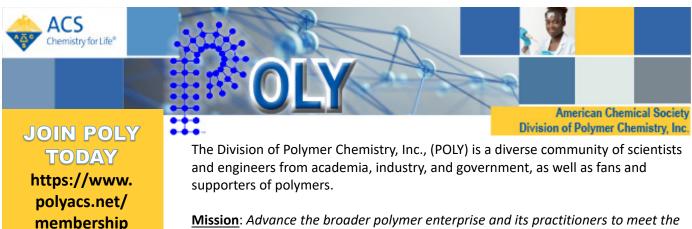
POLY/PMSE Student Chapters are student run organizations affiliated with the ACS Division of Polymer Chemistry (POLY) and the Division of Polymeric Materials Science and Engineering (PMSE) that provide networking and career development opportunities to students and postdoctoral associates in the polymer field. POLY/PMSE Student Chapters provide access to other graduate students, faculty, government lab researchers, and industrial employees and administrators in both professional and social environments. Opportunities are available for financial support of seminar and group activities. Plans for starting a student advisory board to meet with chapter presidents and officers and to develop a student chapter email list to promote networking are two of the new goals for this coming year.

Student Chapters are required to submit a report of activity and list of officers each year. A review is conducted and awards are presented to recognize outstanding activity. Congratulations to our winners for their activity in 2020/2021.

Thank you to our judges, who read over each chapter report and provided thoughtful feedback and encouragement.







<u>Mission</u>: Advance the broader polymer enterprise and its practitioners to meet the global challenges of today and the future.

<u>Vision</u>: Be the premier professional organization promoting polymer science and its value to society.

POLY conducted a membership survey this spring. Thanks to everyone who participated. We are excited to share the results on-line. POLY continues to strive to keep our membership numbers healthy, provide up-to-date benefit, and find ways to connect during the COVID pandemic. Your membership truly matters to us. We welcome your input for improvements and continued growth. Please helps us remain strong in numbers by encouraging your colleges and student to become members of POLY and renew your own membership annually.

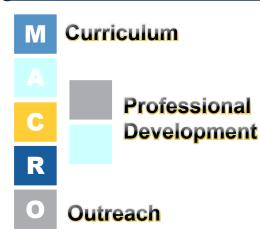




1st Year Membership

FREE

## **MACRO EDUCATION**



The MACRO website is launched and live (https://macro-poly-pmse.org/). Please check it out and provide feedback. We aim to provide resources in three main venues, Curriculum, Professional Development, and Outreach.

On the Curriculum page, we now have resources on the MACRO webpage on general polymer topics, acyl substitution, stereochemistry, alkene chemistry. Please review and provide feedback. We are also soliciting ideas for new topics, especially those related to polymer physical chemistry and advanced polymer characterization. New developments: Priority is set on creating video modules for the MACRO YouTube channel and provide PowerPoint, Word, and PDF instructional documents.

On the Professional Development (PD) page, we have published resources on the MACRO website for undergraduates seeking further graduate study in polymers. We plan to expand these resources over the next 3-5 years to

address all stages of career development including graduate students, industry, and academics. On November 5th 2021, we plan to host a Virtual Panel to discuss graduate school application process; updates to writing a paperpage, currently working on CVs and resumes page. We are also developing a pilot mentorship program, initially using student chapters.

On the Outreach page, we've begun to create a depository of materials for individuals to be able to spread their passion and knowledge of science to the general population. MACRO launched an interface where individuals can share what they are currently utilizing in their communities and receive appropriate recognition for their contributions to the Polymer community. We've begun to solicit individuals to create content and have posted several modules.

If you have any questions or are interested in contributing to any of these pages, please reach out to Liz Sterner (esterner@lvc.edu), Dominik Konkolewicz (d.konkolewicz@miamioh.edu) or Philip Costanzo (pcostanz@calpoly.edu).



## **EMAIL 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 . . . Go to: https://polyacs.org/poly-electronic-discussion-list/

## **SIGN UP TODAY!**

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

## POLY/ACS NATIONAL MEETING ACTIVITY









### **Programming Team**

Pictured top to bottom:

Hayley Brown (hbrown1@dow.com)

Rob Mathers (rtm11@psu.edu)

Levi Moore (levi.moore.1@us.af.mil)

Sara Orski (sara.orski@nist.gov)

### 263rd ACS National Meeting (Spring) March 20-24, 2022 \*San Diego, CA ACS Theme: Bonding Through Chemistry Lead Program Chair: Levi Moore (levi.moore.1@us.af.mil)

- 50 Years of Polymer Science and Engineering at Southern Miss.
- ACS Award in Polymer Chemistry in Honor of Robert Waymouth
- Engineering Functionality into Bio(mimetic) Polymers
- E.V. Murphee Award in Industrial and Engineering Chemistry in Honor of Joesph DeSimone
- Excellence in Graduate Polymer Research
- From Staudinger Macromolecules to the Genome of Macromolecules
- General Topics: New Synthesis and Characterization of Polymers
- Incorporating Polymer Science into the Classroom
- · Industrial Developments in Polyolefin Macromolecular Design
- · Industrial Innovations in Polymer Science
- Paul J. Flory Polymer Education Award in Honor of Timothy Long
- POLY/PMSE Plenary and Awards Ceremony
- Ralph M. Hirschmann Award in Peptide Chemistry in Honor of Samuel Stupp
- Translational Polymer Research
- Undergraduate Research in Polymer Science
- · Virtual Graduate Students Symposium in Asia-Pacific Region on Polymer Chemistry

### 264th ACS National Meeting (Fall) August 21-25, 2022 \*Chicago, IL

### ACS Theme: Sustainability in a Changing World Lead Program Chair: Rob Mathers (rtm11@psu.edu)

- ACS Macro Letters/Biomacromolecules/Macromolecules Young Investigator Award
- Characterization of Sustainable Polymers
- DSM Bright Science Award for Ph.D. Students
- Dynamic Covalent and Supramolecular Polymer Networks
- · Federally Funded Research for Polymer Circularity
- · General Topics: New Synthesis and Characterization of Polymers
- · Green Polymer Chemistry and Sustainability
- Henkel Award for Outstanding Graduate Research in Polymer Science & Engineering
- Industrial Innovations in Polymer Science
- Industrial Polymer Scientist Award
- Mark Scholar Award
- Mark Senior Scholar Award
- · Mark Young Scholar Award
- NASA Symposium
- · Next-Generation Synthesis and Structure for Pi-Conjugated Polymers
- POLY/PMSE Plenary Event and Ceremony
  - Safety Across the Chemical Disciplines

POLY GRAPHICAL ABSTRACT SUBMISSION REQUIREMENTS:
• A POLY abstract includes title, authors, affiliations, abstract text, and a key figure
The word limit for national meetings is 300 words (2500 characters)
<ul> <li>Both tables and images subtract from the abstract word count</li> </ul>
Each row in a table counts for a total of 7 words (56 characters)
An image counts for a total of 70 words (560 characters)

ACS National Meeting: www.acs.org/content/acs/en/meetings/national-meeting.html

- POLY Program Info: https://polyacs.org/poly-at-national-acs-meetings/
- ACS Symposia Submission: https://polyacs.org/symposium-proposal-online-form/

## HAASE NAMED NEW POLY PROGRAMMING CHAIR



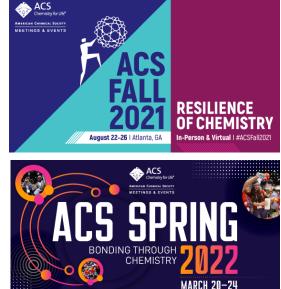
Each fall, the current POLY Chair has the honor to select a new POLY Programming Officer. The Programming Team is typically made up of approximately 3 members, representing industry, academia, and the government. As Hayley Brown begins to transition out of Programming this fall, a new industrial representative is needed to fill her industrial position. The POLY Chair, Andrea Kasko, names Dr. Haase to fill this opening.

POLY is excited to welcome: Dr. Danniebelle N. Haase, The Dow Chemical Company

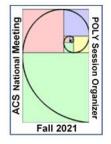
## POLY GRAPHICAL ABSTRACTS

POLY requests all ACS/POLY presenters to submit a graphical abstract for the ACS National Meetings, which includes title, authors, affiliations, abstract text and key figure or table. POLY has a ACS-POLY graphical abstract collection (or Preprints) going back to the 1960's. Access and copies of preprints are available free to POLY members. If you are looking for a specific graphical abstract/preprint, contact Carlee in the POLY Business Office (CARLEEL@VT.EDU)

VIEW POLY GRAPHICAL ABSTRACTS: https://polyacs.org/poly-at-previous-national-acs-meetings/



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### Thank you ACS Division of Polymer Chemistry 2021 POLY ACS National Meeting Team

<u>Program Team</u> Sara Orski (Fall Lead) Hayley Brown Levi Moore Robert Mathers Pol Besenius James Bohling Dimitris Collias William Dichtel Dana Garcia Wei Gao Craig Hawker J Hedrick Ferenc Horkay Jeffrey Hubbell

### Session Organizers

Yongfu Li Martin James Andrea Kasko Roxanne Kieltyka Jinsang Kim John Layman Mahesh Mahanthappa Paulomi Majumder John Matson Michael Meador

Egbert Meijer Michael Minkler Robert Nolan Nicholas Peppas Julie Pollak George Rodriguez Jitesh Soares Ksenia Takhistova Edwin Thomas Judith Van Gorp Rolf Vanbenthem



ACS FALL 2021

**RESILIENCE OF CHEMISTRY** 

ACS Division of Polymer Chemistry



## **IN MEMORIAM**



Prof. Chang Ryu Rensselaer Polytechnic Institute

Dr. Chang Y. Ryu passed on July 18, 2021. He was 53. Dr. Ryu was a Professor of Chemistry and Chemical Biology at Rensselaer and the Director of the New York State Center for Polymer Synthesis since 2014.

Dr. Ryu was born in South Korea and earned Bachelor of Science and Master of Science degrees in Chemical Technology from Seoul National University, and a doctorate in Chemical Engineering from the University of Minnesota. After postdoctoral research at the University of California, Santa Barbara, Dr. Ryu joined Rensselaer as an Assistant Professor in 2000.

Dr. Ryu was a physical polymer scientist well known for his work on polymer characterization and the study of polymer structure/materials property relationships. He was a leader in polymer separation using adsorption behavior of molecular interactions and their nanoscale self-assembly in solution and thin films. Most recently, his group was studying the development of 3D printing materials based on naturally available vegetable oil-based chemicals. Dr. Ryu engaged in many productive collaborations with researchers in the U.S. and Korea.

Dr. Ryu had over 70 research publications and was coeditor of the book Sustainable Polymers from Biomass. He presented his work at numerous conferences in the U.S. and South Korea. Dr. Ryu was a recipient of the National Science Foundation CAREER award and obtained many government and industrial research grants throughout his career. He was also very active in service to his profession, in particular as a member of the American Chemical Society's Division of Polymeric Materials Science and Engineering, as well as the American Physics Society's Division of Polymer Physics. Dr. Ryu also served previously as editorial board member and later as editor of the journal Macromolecular Research (Springer).

*Dr.* Ryu is survived by his wife, Young Kim; his daughters, Helene and Anna; his parents, Chang Sook and In Hong Ryu; his brother, Kwang Yeol Ryu; and other extended family.

We honor the contributions Dr. Ryu made to the scientific community and the world. He will be greatly missed by colleagues, students, former students, and friends.



### Françoise Winnik University of Helsinki

Professor Françoise Winnik passed on February 13, 2021. She leaves behind an indelible mark on the colloids, interfaces, and material science community and is missed by her friends and colleagues.

Professor Winnik was born in France to parents who encouraged her to strive for greatness at a time when many were less likely to encourage their daughters.

She earned her undergraduate degree in chemical engineering at the National School of Chemistry in Mulhouse, France, in 1973. She earned an M.Sc. in 1974 and a Ph.D. in 1979, both in organic synthesis at the University of Toronto. In 1981, she took a position as a research scientist at the Xerox Research Centre of Canada. After 12 years in the private sector, she became an associate professor in the chemistry and physics departments at McMaster University in Canada, before joining the University of Montreal in 2000, where she worked until her move to the University of Helsinki in Finland in 2018. Professor Winnik was also a principal investigator at the WPI International Center for Materials Nanoarchitectonics of the National Institute for Materials Science in Tsukuba, Japan.

Professor Winnik remained an active researcher throughout her life. Her last paper published in an ACS Publications journal was "The Two Phase Transitions of Hydrophobically End-Capped Poly(N-isopropylacrylamide) s in Water," in Macromolecules last June.

She was known for her enthusiasm for surface and colloids science and the special role these fields play in materials research. She also had a passion for helping the next generation of scientists to reach new audiences.

POLY obituaries can be found at:

https://polyacs.org/obituaries/



### Houston MJ Associates

HMJ Associates is proud to announce the creation of a new GPC/SEC and Dilute Solution Viscometry (DSV) sample analysis service platform for our polymer and biopolymer customers.





**POLY WEB** 

www.polyacs.org

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**POLY E-LIST** 

https://polyacs.org/

poly-electronic-





POLY Councilors Pictured left to right: Kathryn Beers, Mary Ann Meador, Greg Tew, and Kathryn Uhrich

### Future ACS Meetings

Bonding Through Chemistry March 20 - 24, 2022 San Diego, CA

> Sustainability in a Changing World August 21 - 25, 2022 Chicago, IL

Crossroads of Chemistry March 26 - 30, 2023 Indianapolis, IN

Harnessing the Power of Data August 13 - 17, 2023 San Francisco, CA

Many Flavors of Chemistry March 17 - 21, 2024 New Orleans, LA

:///bit.ly//tutureacsmeetings

Elevating Chemistry August 18 - 21, 2024 Denver, CO

ACS Spring 2025 March 23-27, 2025 San Diego, CA

# POLY COUNCILORS' REPORT

The ACS Council Meeting was held virtually on August 25. On the recommendation of the Committee on Committees, Council approved the Petition to Amend the Duties of the Committee on Minority Affairs. The Petition was amended on the floor of Council to strike the word 'minority' in Standing Rule VIII, Sec. 1, b, (9). At the Council meeting, President Cheng introduced and led a special discussion on ideas to increase involvement and membership from business and industry. For the last 5 years, there has been a steady decrease in industry members. To address value, ACS has a variety of offerings available to members to advance, discover, connect, and share. To address cost, actions were taken by the Council this past spring in the schedule of membership for 2022 that will provide industry members with flexibility as to membership options. Councilor input was then requested on the following two questions:

1. How can we improve the value that ACS provides to its industrial and business members?

2. How can we encourage academic inventors and entrepreneurs and support start-ups?

The Society's 2021 financial performance through June 30 yielded a Net Surplus from Operations of \$55.0 million, which is \$33.6 million favorable to budget and almost \$6 million greater than the same period in 2020.

Committee on Committees (ConC) will again conduct a Committee Census (formerly called the Committee Demographic Survey) of all Society Committee personnel, including the members of committees elected by Council, in February 2022. This census gives ConC a snapshot of where the committee demographic picture stands as they look toward future recruitment and retention.

### Meetings and Expositions (Mary Ann Meador and

**Kathryn Ulrich):** The Fall 2021 Meeting was held live from Atlanta, Georgia from August 22-26, and is on-demand until September 30. As of August 25th, there were 8,205 registrations (1,895 hybrid and 6,310 virtual). Of the approximately 1,200 oral sessions held, 71 were only inperson, 244 were hybrid, and 855 were held virtually. The 2022 Spring Meeting is currently being planned as a hybrid meeting with live sessions in San Diego. The ACS Board of Directors approved the ACS 2022 Spring and Fall Meetings in-person/hybrid member registration fee at \$399 and the virtual member registration fee at \$199.

**Divisional Activities (Kate Beers):** At the Fall Meeting, DAC finalized plans for a special call for Innovative Project Grants (IPGs) this Fall to further support strategic planning and division collaborations, while temporarily suspending prior limits on the number of IPGs per Division, and increasing the total amounts available. The deadline for applications is October 15th. More information can be found at www.acs.org/ divisionipg. DAC also agreed to establish three new working

groups within the committee on 1) tracking the impacts of Membership 2.0 on Divisions, 2) tracking the impacts of the revised allocation formula on Divisions, and 3) a new strategic plan for DAC. POLY will be represented on both the membership and strategic planning working groups.

### POLY COMMUNITY EVENT CALENDAR

Consider spotlighting your event with other notables in the field on POLY's community event calendar!

Email: carleel@vt.edu with details of your contribution to the POLY Calendar.

POLY Event Calendar: http://bit.ly/polycalendar

#### INTERESTED IN ADVERTISING?

On behalf of the ACS **Division of Polymer** Chemistry, we would like to invite you to consider advertising in the POLY Newsletter. Our non-profit organization distributes the POLY Newsletter to approximately 4,000 of it's polymer scientist members. The POLY NEWSLETTER is distributed in June and October each year and describes the Division activities and announces polymer-related scientific activities worldwide. The POLY Newsletter provides an excellent opportunity for advertising.

Complete information is available by going to: https://www.polyacs.net/ newsletter.

#### Would you like to become more involved within POLY?

Follow the link below to find out more details:

https://bit.ly/getinvolvedPOLY

Fall 2021 Newsletter



POLY Treasurer Christine Coltrain Eastman Kodak

## TREASURER'S REPORT

The table below is a summary of the 2020 activity, the 2021 approved budget, and the 2021 income and expenditures for POLY as of July 31, 2021. POLY is a non-profit organization and as such, the Executive Committee is challenged to provide excellent services and growing benefits for its members while maintaining a balanced annual budget.

POLY has been incredibly active and supportive of its membership during the past year and a half of unusual and tumultuous times, confronting so many changes, cancellations, and postponements. I am happy to report that POLY has remained financially healthy. The dedicated POLY family has worked very hard to minimize spending and maximize output throughout the year. POLY is especially grateful to the ACS for their generosity in providing the Divisions with a special one-time extra Allocation this year. These funds significantly improved POLY income and will be used to provide more benefits to our membership. As of July 2021, POLY had \$1.3M in investments which continues to support the budget annually.

The 2021 budget projected a significant increase in expenses related to "Meetings Activities," primarily as planned special meetings, MACRO 2021, and PACIFICHEM 2021 were postponed from 2020. As shown in the summary table, although POLY collected significant income during 2020 from many sponsors for these meetings, many of the associated expenses will occur in 2021 and 2022. We thank these generous sponsors for their flexibility and continuous support.

As to best serve our membership, POLY continues to look for ways to reduce expenditures via increased virtual and electronic distributions, such as the enhanced and interactive POLY Newsletter, webinars, and webshops. The new Education Committee has been actively organizing symposia and creating the MACRO website for our younger and aspiring members, innovative ideas continue to receive IPG grants, and the IAB (Industrial Advisory Board) continues to support, organize symposia, and sponsor awards aimed at our members in industry. Student Chapters, topical workshops, and virtual webshops, organized by POLY members, offer great value to both the Division and our members. POLY continues to highlight an array of awards and to annually fund (though the POLY investment fund) its major awards including the Carl Marvel-Creative Polymer Chemistry Award, the Herman Mark-Polymer Chemistry Award, the Paul Flory-Polymer Education Award, and the Industrial Polymer Science Award.

POLY continues to seek sponsors for receptions, coffee sessions, awards including student and poster awards, newsletters, and workshops to help offset growing expenses. Please contact Christine Coltrain, Christine.coltrain@kodak.com, or Kathy Mitchem, kathyL@vt.edu for further information about these opportunities.

The 2021 POLY budget will be developed during December 2021 and approved during the POLY Executive Committee Meeting in January 2022. Please submit requests for funding for committee activity, symposium support, and other POLY related activity directed to the POLY Treasurer, Christine Coltrain, Christine.coltrain@kodak.com, by December 1, 2021.

	2020 Actual		2021 Budget		2021 Jan-July	
Budget Category	Income	E xp ense	Income	Expense	Income	E xpense
Dues / ACS Allocations	\$119,487		\$119,200		\$149,873	
National/Regional/Other						
Meetings Activities	\$86,425	\$43,700	\$36,300	\$188,570	\$6,749	\$16,814
Workshop Activities	\$44,839	\$43,018	\$273,000	\$220,500	\$12,432	\$15,189
Administrative	\$74	\$181,598	\$0	\$194,200	\$21	\$155,750
Publication / Advertising	\$7,762	\$3,014	\$6,000	\$3,200	\$5,946	\$2,415
Committee / Awards Activities	\$57,906	\$42,032	\$56,000	\$82,500	\$30,887	\$28,725
Cashed Investments / Savings	\$0	\$0	\$198,470	\$0	\$100,000	\$0
T otal Budget	\$316,493	\$313,362	\$688,970	\$688,970	\$305,908	\$218,893





Printable PDF of catalog available on webiste

## Contact POLY for Advertising Opportunities, Membership Benefits, & More



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## ACS Division of Polymer Chemistry, Inc. - Executive Committee

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