



Industrial & Engineering Chemistry

Making Chemistry Work!

2022 Spring Newsletter

I&EC Executive Board

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Councilor 2021-2022: Jaqueline Kiplinger

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Councilor 2021-2023: Mary Engelman

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Member at Large: Troy Semelsberger

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SST Vice Chair-Elect: Joanna McFarlane

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SST Secretary: Abdul Momen

Chair's Report

Greetings I&EC Members!

The division continues to outperform both financially and through engagement with new volunteers. We completed a strategic plan that will help chart how our financial resources are best allocated. The division has attracted new volunteer members and leaders and while COVID has prevented a lot of face-to-face interaction, the division is planning to hold a social reception at the ACS Spring meeting.

We have a lot to be proud of as I&EC members. From the outside looking in, I can honestly say our division is one of the strongest I have come across in my tenure as a professional society volunteer. During my tenure as Chair etc., we will focus on implementing our strategic plan that was developed in 2021. Our division is a vibrant and active community that welcomes a diverse and inclusive population of global professionals, and I will be focusing our efforts to expand this diversity and inclusion through recognition, leadership, and opportunities that I hope will benefit our division.



Bond Calloway
I&EC Chair

Chair Elect Report

Dear I&EC Members,

Happy New Year 2022! I am excited for another successful year within I&EC and hope to see many of you in person during the forthcoming national meetings!

The Steering committee will continue on working on several goals that were established in 2021. We will continue to find new and creative ways to interact with our members. We are focusing on how to grow and develop our Division such that we continue to bring the scientists meaningful avenues to share their work and accomplishments. Building external partnerships, maintaining our current collaborations, and identifying key gaps where I&EC can be impactful for professionals across industries are just some of the broad goals of 2022. I will make sure to share progress in any of the specific areas as the year goes on. If any of you have any ideas or would like to be more involved in any of the areas of the division, please do not hesitate to reach out and I will be more



Anna C. Ivashko
I&EC Chair Elect

than happy to work with you! Regardless where you are in your professional career – right out of grad school, undergraduate, have years of experience in industry, there is a place for you in I&EC to make an impact and work with some wonderful scientists and individuals.

Past Chair Report

Dear I&EC Members,

This year as Past-Chair is the beginning of the end of my tenure in the Chair succession (Chair-Elect, Chair, Past-Chair). The office is designed primarily to provide continuity and serve as a resource to the Chair and Chair-Elect. Nevertheless, the Past-Chair is also responsible for completing the annual report from the Division to the ACS, as well as leading the Nominating Committee to develop a competitive candidate slate for the election of Division officers.

In recent years, the Division elections have often been uncontested. The formal position of the Division is that while this is permissible, it is undesirable. Moreover, this appears to be a position that resonates with the membership, as evidenced by various comments articulating a desire for a real choice of candidates during elections. That said, a choice of candidates can only be realized if people are willing to run for a given office, and as a member of the I&EC Division, you are eligible to run.

The nominating committee is currently accepting candidate applications for the offices of Chair-Elect (3-year progression), Secretary (2-year term), and Councilor (3-year term). If you are interested or would like more information, please contact me: carter.abney@borregaard.com. Applications include a short biography and a candidate statement; these need to be received on or before March 12, 2022.



Carter Abney
I&EC Past Chair

Councilors Report

From the I&EC Councilors

The virtual ACS Spring Council meeting will be held on March 23, 2022, starting at 8 am PT. ACS has shared the guidelines to attend the ACS Spring meeting in San Diego. For detail information of the Attendee Safety Plan go to <https://www.acs.org/content/acs/en/meetings/acs-meetings/registration/attendee-safety-plan.html>.

Highlights of some requirements:

- All attendees, exhibitors, vendors, and ACS Staff will be Vaccinated to gain access to the in person meeting in San Diego and are required to wear a face mask while in the San Diego Convention Center, or any facility hosting an ACS-Sponsored event or meeting, or while attending an ACS hosted/sponsored event or meeting.
- Anyone that has not uploaded their vaccination card will be denied entry to the 2022 ACS Spring meeting and will not be able to pick up their badge until proof of vaccination.
- Individual will be fully vaccinated by March 6, 2022.

Here is the link to the full Council agenda, if you are interested in additional information. <https://www.acs.org/content/dam/acsorg/about/governance/councilors/council-agenda-3-23-2022.pdf>

The following are up for action at the ACS Council meeting:

- Introduction of nominees for 2023 President-Elect: Frank D. Blum, Mary K. Carroll, Rigoberto Hernandez, and Ingrid Montes



Mary Engelman
I&EC Councilor



Leigh Martin
I&EC Councilor

- Candidates for Director at Large: Milagros (Milly) Delgado, Malika Jeffries-El, Will E. Lynch, and Ellene Tratras Contis.
- Candidates for District Director
 - District II: Kimberly Agnew-Heard, Gerard Baillely, Mark E. Jones, and Marcy Towns
 - District IV: Christopher J. Bannochie, Carmen Gauthier, Lisa Houston, and Pamela M. Leggett-Robinson
- Petition to Amend the Duties of the Committee on Disabilities to be more inclusive: (changing, students or individuals to “persons”)
- Petition to Amend the use of dues Standing Rule II. Explanation, allocating to general society revenues as opposed to specifically earmarking due and to earmark a portion of the Society’s long term investment pool to assist Local Sections and technical Divisions. The Goal is to provide a more stable and growing basis for this funding in the future.
- Approval of Division Name Change: Division of Carbohydrate Chemistry (CARB) change their name to Division of Carbohydrate Chemistry & Chemical Glycobiology (CARB).
- Petition for a new International Chemical Sciences Chapter: “Switzerland International Chemical Sciences”, territory of the Swiss Confederation.
- Approval to extend the International Dues Discount testing program based on World Bank Country Income Levels. Request continuation for an additional three years (through August 2025).
- Approval of the 2023 Schedule of Membership, lots of changes to align the new Membership categories.



Jaqueline Kiplinger
I&EC Councilor

Treasurer’s Report

I hope everyone has had a great start to 2022.

2021 was another unpredictable year and this year will be no different. My first term as treasurer has ended, and I am looking forward to serving for another 2 years.

In 2021 our income came to \$52,907 and expenses came in at \$36,278. With many executive committee members attending the national meeting virtually, our expenses were lower than what we had budgeted for. The 2022 budget is \$53,600 in income and \$88,200 in expenses. However, with the upcoming national meeting being a hybrid meeting, many executive committee members will be attending virtually again, and I fully expect our expenses to be under budget by quite a bit again this year.

Overall, we are in a financially healthy position, and I look forward to serving as treasurer for 2 more years.

Income	2021 Budget	2021 Actual	2022 Budget
Grants/Awards	\$ 2,500.00	\$ 250.00	\$ 3,000.00
Councilor Reimbursement	\$ 2,500.00	\$ -	\$ 9,000.00
Dues	\$ 17,000.00	\$ 16,790.50	\$ 16,500.00
Allotment	\$ 39,000.00	\$ 35,792.19	\$ 20,000.00
Interest	\$ 1,000.00	\$ -	\$ 5,000.00
Dividends	\$ -	\$ -	\$ -
Royalties	\$ -	\$ -	\$ -
Misc	\$ 100.00	\$ 75.00	\$ 100.00
Sub Total	\$ 62,100.00	\$ 52,907.69	\$ 53,600.00

Expenses	2021 Budget	2021 Actual	2022 Budget
Grants/Awards	\$ 7,500.00	\$ 26,362.32	\$ 33,800.00
Speaker Fees & Expenses	\$ 700.00	\$ -	\$ -
Registrations	\$ 2,000.00	\$ 2,002.00	\$ 3,000.00
Meeting Expenses	\$ 2,000.00	\$ -	\$ 2,000.00
Investment Expenses	\$ -	\$ -	\$ 4,000.00
Ballots, Newsletter, Postage	\$ 4,000.00	\$ 3,302.37	\$ 3,300.00
Communications	\$ 3,000.00	\$ 1,846.55	\$ 1,600.00
Conferences	\$ 1,000.00	\$ -	\$ -
Admin	\$ 2,500.00	\$ -	\$ -
Dinner Meetings/Receptions	\$ 2,000.00	\$ -	\$ 4,000.00
Councilor Travel	\$ 5,500.00	\$ -	\$ 13,500.00
Executive Travel	\$ 10,000.00	\$ 425.00	\$ 23,000.00
Other	\$ 100.00	\$ 2,340.00	\$ -
Sub Total	\$ 40,300.00	\$ 36,278.24	\$ 88,200.00

Net Gain (Loss) for 2021 \$ 21,800.00

Programming Chair's Report

Dear I&EC Members,

I would like to thank all of you for past participation and involvement in the I&EC Symposia! We realize that these past few years have been challenging trying to navigate the virtual or ever-changing types of symposia.

We have an exciting slate of symposia planned for the Spring 2022 Meeting that will take place in San Diego, CA. We will be offering a mix of hybrid, in-person, and virtual symposia, so we're truly hoping to see everyone participate in some way!

I&EC Fellows Symposium

I&EC General Papers

I&EC General Posters

Functional Materials for Industrial Applications: Chemistry, Modeling and Process

Rare Earth Separations: From Fundamentals to Advanced Processes

PRES I&EC Bonding the Chemical Enterprise with Decarbonization



Austin Evans
I&EC Programming
Chair

I would like to thank all the symposium organizers and presenters who have contributed their efforts for the Spring 2022 Meeting.

We are extremely honored to co-sponsor a symposium on Hydrocracking and Hydrotreating with ENFL and cultivating the partnership between our two divisions.

Since Fall Meeting is not too far away, we are very excited to be hosting wonderful selection of symposia. In particular, we are excited to host the Fifth CME NASA Symposium with our collaborators from CME, it is truly an honor to have this prestigious symposium in I&EC. We are also excited again for our continuous and

strong collaboration with SCHB and to have another I&EC Bonding the Chemical Enterprise with Decarbonization Symposium to continue the conversation from the Spring meeting. We are looking forward to continuing to uphold our annual Fall Meeting tradition and host an I&EC Grad Students Awards Symposium. Thank you to all our partners, collaborators, and symposium organizers for contributing to all of the symposia and the time you take to execute successful symposia! We are very fortunate to work with you!

I&EC Grad Students Awards Symposium

I&EC General Papers

I&EC General Posters

I&EC Bonding the Chemical Enterprise with Decarbonization

Fifth CME NASA Symposium

For any questions and ideas in regard to I&EC Programming please contact any of us on the Programming Committee! Hoping to see everyone at an in-person meeting in the near future!!

I&EC Awards Reception at San Diego ACS Meeting

Date/Time: Monday, March 21 from 5 to 7 PM

Location: Brigantine Seafood & Oyster Bar, 1360 North Harborside Dr

Crows Nest Reception area on roof.

RSVP: George Stanley - gstanley@lsu.edu

The Industrial & Engineering Chemistry division is hosting an Awards Reception honoring our I&EC Fellows at the San Diego ACS meeting. We extend an open invitation to any I&EC members attending the meeting to attend.

The free reception will be held at the Crows Nest, which is on the roof of the Brigantine Seafood & Oyster Bar. Refreshments and appetizers will be served.

Attendance is limited to 40, so please RSVP if you plan to attend to George Stanley (gstanley@lsu.edu) at least a day before the reception. A good number of the I&EC Executive Board members will be attending, and we look forward to seeing you there.



Awards Chair Report

I am honored to take over as Chair of the Awards committee as this is one of the most significant roles within the Division. We also have many volunteer opportunities if you are looking to become active within the Division. If interested, please contact me.

I&EC Fellows

I would like to thank Carter Abney, Jacqueline Kiplinger, Leigh Martin, and Yunlong Zhang for participating in the I&EC Fellows subcommittee. We would like to recognize the class of 2022 I&EC Fellows.



Glenn Fugate
Awards Committee
Chair

2022 I&EC Fellows:

Dr. Mou Paul, I&EC Fellow,
Dr. Jae Hwan Sim, I&EC International Fellow,
Prof. Bingjun Xu, Early Career I&EC Fellow, and
Susan Koster, I&EC Applied Chemical Technology Fellow.

Starting during the Spring 2022 meeting, the Fellows and other I&EC related awardees will be invited to give plenary talks in an inaugural I&EC Awards symposium on March 21, 2022 starting at 8:00 AM Pacific Time. The session is hybrid and we encourage everyone to attend online or in person.

And a reminder that it is never too early to start considering a nomination for the I&EC Fellow class of 2024. Applications are due by December 31, 2022. Please note that the format is undergoing some changes which will be posted on the division website (<https://acs-iec.org/>). One significant change is that we will allow I&EC Division members to nominate themselves for one of the awards starting this year for any person who has been a member of the Division for more than 2 years. Some additional changes will be posted in the next few months.

ACS Fellow nominations

Application packets for ACS Fellows are due to the ACS by 1 April 2022. The Division can support up to 3 candidates. If you are interested in being nominated, the Division has several ACS Fellows that can discuss criteria and attempt to assist with the process. For additional details, please see the ACS website: <https://www.acs.org/content/acs/en/funding/awards/acs-fellows.html>.

I&EC Graduate Students Awards Symposium

The 2022 I&EC Graduate Student Award Symposium will be held at the Fall ACS meeting. Abstracts are currently being accepted and I encourage any interested graduate student to apply. I would like to personally thank Michael Matthews for his service in establishing and developing this program within the Division. If you are interested in helping organize or participate in this or other future awards, please let me know.

Communications Chair's Report

Greetings, I&EC members!

I hope this message finds you well. I hope to see many of you at the Spring meeting in San Diego next month. Please stop by the I&EC events and symposiums if you are in San Diego.

I would also like to invite you to checkout our website -

<https://acs-iec.org>

Webmaster James Conner Gilhula has recently updated the website. We welcome any feedback you have on the website or how we can improve communications with members. You can reach out to us directly via the **@Contact** button on the website.

We continue to look for volunteers to join the PR/Communications Committee - especially if you are an expert in using the Social Media tools (Facebook, Twitter, LinkedIn, WebEx). In case you don't have time to volunteer right now but you would like to share any articles or information with the I&EC members, please send them to me directly.

Safe travels to San Diego!



Samina Azad
Public Relations
Chair

Membership Chair Report

Hello fellow I&EC members,

I hope this message finds you well. The Membership Committee has been continuing to reach out to incoming and outgoing division members to welcome our new members and gather feedback from our outgoing members. If you have feedback or are interested in becoming more involved in the Division, please reach out to us at iec.membership.committee@gmail.com. There are numerous ways to become involved in the Division's activities, from programming to volunteering on any of the various committees, so please reach out to us and we will help match your interests to open volunteer positions. Becoming involved in Division activities is a great way to expand your network, learn more about ACS governance and operations, or utilize your skills in support of various activities of the Division.

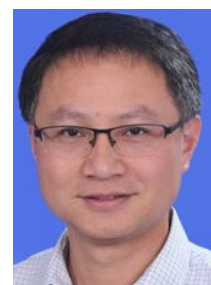


Kathryn Taylor-Pashow
Membership
Committee Chair

Members at Large

We would like to welcome two new members at large, Yunlong Zhang and Troy Semelsberger, to the 2022 Executive committee!

My name is Yunlong Zhang, and I am a staff scientist working at the research labs of ExxonMobil located in New Jersey. I have 20 years of R&D experience with a background in chemical science and I am interested in applying chemistry to the industry and solving real-world problems. I received my BS and MS in China, and obtained my PhD degree in Chemistry from the Ohio State University, and did a postdoctoral research on materials at Massachusetts Institute of Technology. Since joined ExxonMobil, I led research on characterization of heavy petroleum molecules at the molecular level, and revealed new potentials and applications for petroleum hydrocarbons. I have published over 50 publications, delivered over 40 presentations, and contributed to about a dozen of patents.



Yunlong Zhang
Member at Large

I have been an ACS member for over 15 years, actively involved in various ACS divisions and local sections. As a member-at-large and on the executive committee of I&EC, I hope to make my contributions by joining division business and program meetings, fostering collaborations with other ACS technical divisions, enhancing representations of researchers from industrial and diverse backgrounds, increasing the impact of I&EC around the world and helping to recruit new members, especially from the energy industry.

Dr. Troy A. Semelsberger is a staff scientist at Los Alamos National Laboratory. He holds a B.A. in Chemistry from the College of Wooster, and a B.S., MS, and Ph.D. in Chemical Engineering from Case Western Reserve University. He is a veteran of the United States Armed Forces. Troy has numerous publications on alternative energy related modeling and experimental work. He holds five patents and has been awarded the 2014 DOE Hydrogen and Fuel Cell Program R&D Award, the 2015 NNSA Distinguished Performance Award: ALT 940 Concepts Competition Winning Team, the 2015 NNSA Defense Programs Award of Excellence, and the 2017 NNSA Distinguished Performance Award for the Alt 940 Design Qualification. His research interests are in reaction engineering, thermodynamics, catalysis, and material characterization.

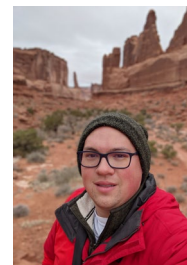


Troy Semelsberger
Member at Large

Separation Science and Technology (SS&T) Subdivision

Greeting! My name is Neil Williams, and I am the chair of the Separation Science and Technology (SS&T) subdivision for 2022.

I received my bachelor's degrees in Biology and Chemistry in 2008, Master's of Science in Chemistry from the University of North Carolina Wilmington. After receiving my M.S., I moved to Oak Ridge, TN taking a post masters research position at Oak Ridge National Laboratory (ORNL). While at ORNL, I completed my Ph.D. in chemistry at the University of Tennessee in 2017. After completing my Ph.D., I took a position as a postdoctoral research associate at Oak Ridge National Laboratory developing new compounds based on guanidines for use as anion receptors in separation systems mainly crystallization and solvent extraction. Additionally, I am continuing work begun as a graduate student developing a new technology used to capture CO₂ from the ambient air and flue gas, that required much less energy to regenerate compared to prior systems. In 2019, I moved to Laramie, WY and started work for Millipore Sigma working on method development for secondary pharmaceutical reference standards.



Neil Williams
SS&T Chair

Member Announcements

We have a new section of the Newsletter "Member Announcements".

Please send any news you would like your colleagues to know (promotion, first job, award, paper published, new patent, position available, position wanted, etc.) to Newsletter Editor Dr. Maria Kriz at Maria.Kriz@srnl.doe.gov