



# THE IOTAN

Iota Sigma Pi National Honor Society for Women in Chemistry *March 2023 No. 124*



From the Ashes  
2023 Iota Sigma Pi 34th Triennial Convention  
June 22-25, 2023  
Hostess Chapter: Aurum Iodide  
Location: Embassy Suites Chicago O'Hare, Rosemont, IL

## INVITATION TO CONVENTION FROM ΙΣΠ NATIONAL PRESIDENT

I am so happy to report that we really are having an in-person Triennial Convention June 22-25. As Past President Megan Sassin said, "If you have never attended Convention, it is like nothing else – an event where women at different career stages and from all over the country come together in an intimate gathering and forge friendships while planning the future of Iota Sigma Pi." We will be meeting outside of Chicago at the Embassy Suites in Rosemont, IL, hosted by the Aurum Iodide Chapter. Many thanks to our Hostess Chapter and their Convention Committee, led by Vivian Sullivan and Gretchen Shearer.

The convention features various activities – business meetings and distinguished speakers. After a reception and poster session on Thursday, the business meetings will start on Friday morning. There will be a break for a luncheon and a talk by our Violet Diller Awardee, Dr. Annmarie Grover Carlton of University of California Irvine. The afternoon will be our time to "get to work" at our Committee Meetings, and in the evening will be the banquet. The winner of our highest honor, National Honorary Member, Dr. Angela K. Wilson of Michigan State University and the Immediate Past President of the American Chemical Society, will be the speaker.

The committees will report their recommendations at the Saturday morning meeting, followed by a luncheon and a panel discussion among the winners of the Centennial and Agnes Faye Morgan awards. Saturday afternoon is free time. AuI Chapter will have suggestions for things to do and will help with transportation.

The Convention will conclude with a short meeting on Sunday morning. The National Council will be even busier than the delegates. They will meet all day on Thursday and have a short meeting on Sunday, as well as participating in the other meetings.

The Iota Sigma Pi Convention is unique because the organization pays most of the expenses for the participants – room, meals, and transportation. If you bring guests (friend, spouse, children), you pay half the room charge and the cost of their meals. (Breakfast is included in the room charge.) Recently, National Council voted to pay for two people for each Chapter, a Delegate and an Alternate Delegate. Previously, chapters had to pay the expenses of any alternate. This change will encourage more people to attend. In addition to chapter delegates, Members at Large have 4 delegates. National Council and our Past National Presidents also attend.

I am really looking forward to seeing many of you in June!

*Anne K. Taylor*

*ISP National President*

## Welcome to Convention from the Hostess Chapter

It is a great privilege for the Aurum Iodide Chapter to host the 34th Iota Sigma Pi National Triennial Convention this summer from June 22<sup>nd</sup> to June 25<sup>th</sup>, 2023. This year, the convention will be at the Embassy Suites Chicago O'Hare, in Rosemont, Illinois. The Chicago metropolitan area is a fitting location for hosting the convention, as it is rich with academic institutions, chemical industry ranging from small business and start-ups to international powerhouses, and wonderful cultural attractions. Rosemont is located just 16 miles west of Chicago. The Embassy Suites hotel is conveniently located to the O'Hare International Airport, Rivers Casino, Rosemont Theater, and Fashion Outlets of Chicago with ample dining and entertainment options, and access to Chicago is available on the Metra and Blue El lines. The Catherine Chevalier woods are nearby for a walk.

This Convention will bring female chemists together from across the country and at all career stages (undergraduate, graduate, professional and emeritus members) to discuss research, establish and strengthen professional networks, and to share STEM outreach ideas to nurture future generations of scientists. The theme of the 34th Triennial Convention is “**From the Ashes**” referencing not only our emergence from the pandemic, but also the cyclical nature of many chemical reactions and the role of chemistry in a sustainable and circular economy. The convention will highlight advances made by women chemists throughout history, recognize current achievements of women chemists through our national awards program, and foster a supportive professional network to launch the scientific careers of the younger chemists in the organization. In addition to networking opportunities, there will be various business sessions, in which delegates meet to discuss actions and policies that will be voted upon giving you a voice to shape the future of Iota Sigma Pi. The Aurum Iodide Chapter will be sponsoring a reception and poster session on Thursday, June 22<sup>nd</sup>. Poster abstracts will be submitted through the national website.

This year we will hear from our National Honorary Member, Dr. Angela K. Wilson at the awards banquet on Friday evening. Also on Friday, the recipient of the Violet Diller Award, Dr. Annmarie Grover Carlton, will present a seminar during lunch. A panel of Agnes Fay Morgan and Centennial Awardees will speak during lunch on Saturday.

We, members of the Aurum Iodide chapter, are looking forward to introducing you to our beautiful Chicago metropolitan area and the diverse things it has to offer. We will arrange an event for Saturday June 24<sup>th</sup> near the hotel and facilitate forming groups to visit other Chicago attractions. Beyond the attractions near the hotel, there are many things to do around Chicago. Natural highlights include the Chicago lakefront, the Chicago Botanical Garden and the Morton Arboretum. Architectural boat tours and State Street shopping are popular attractions downtown. The museum campus has the Art Institute of Chicago, the Field Museum, Shedd Aquarium and the Adler Planetarium.

The Aurum Iodide Chapter is tremendously excited about your participation in the convention where we can meet, celebrate, and network with extraordinary women who have and are currently paving the way for the future. So please, come join us and your fellow scientists at the 34th Iota Sigma Pi National Triennial Convention in Rosemont, Illinois! Information on registration and guidelines can be found in this issue of *The Iotan*.

*Vivian Sullivan*

*Gretchen Shearer*

*Convention Co-chairs*

## **34<sup>th</sup> Triennial Convention Program “From the Ashes”**

Embassy Suites Chicago O’Hare  
5500 N. River Road  
Rosemont, IL 60018  
June 22-25, 2023

### **Thursday, June 22, 2023**

8 am – 5 pm: National Council pre-convention meeting (invitation only)

2:00 pm – 7:00 pm: Convention Check-In

7:00 pm – 9:00 pm: Welcome Reception and Poster Session hosted by Aurum Iodide Chapter

### **Friday, June 23, 2023**

7:00 am: Complimentary Hotel Breakfast

8:00 am – 9:45 am: Opening of Convention; Roll Call; Instructions; NC Reports

9:45 am – 10:00 am: Break

10:00 am – 10:20 am: Slate of National Council Candidates Presented (Dr. Megan Sassin)

10:20 am – 11:30 am: Chapter Report Presentations

12:00 am – 2:00 pm: Luncheon (Violet Diller Awardee, Dr. Annmarie Grover Carlton)

2:00 pm – 3:45 pm: Committee Sessions, submit report to NC President, Secretary

4:00 pm – 4:30 pm: National Council Election (all delegates and NC members)

4:30 pm – 5:30 pm: Break, Social Hour (hotel lobby)

5:30 pm – 6:30 pm: Photo Session for all attendees

6:30 pm – 9:00 pm: Awards Banquet (National Honorary Member, Dr. Angela K. Wilson)

### **Saturday, June 24, 2023**

8:00 am: Complimentary Hotel Breakfast

8:30 am – 10:00 am: Committee Reports

10:00 am – 10:15 am: Break

10:15 am – 11:30 am: Committee Reports

11:30 am – 12:00 pm: New Business

12:00 pm – 2:00 pm: Luncheon (Agnes Fay Morgan and Centennial Awardees Panel Discussion)

2:00 pm +: Afternoon Tours & Dinner on your own

### **Sunday, June 25, 2023**

8:00 am: Complimentary Hotel Breakfast

8:30 am – 9:45 am: Resolutions Committee and Installation of new National Council; Closing Remarks

9:45 am: – 10:00 am Break; Delegates and Alternates dismissed

10:00 am – 11:30 am: Joint (immediate past/new) National Council Post- Convention Meeting

11:30 am – 12:00 pm: Outgoing and Incoming National Council Exchange Information

Suggested dress: Business meetings, business casual; banquet, dressy

## Committees for Convention 2023

1. **Audit/Finance & Budget:** Review the National Treasurer's Triennial financial report; Review the dues structure and set budget priorities
2. **Awards & Outreach:** Review the student and professional awards given by the Society. Recommend criteria for the new Lois Jean Durham Scholarship. Develop ideas and plans to expand the pool of qualified women for each award; discuss outreach activities pursued by members to enhance public knowledge of women in chemistry and science literacy.
3. **Chapter Installations & Development:** Refine guidelines for the installation of new chapters. While we still recommend that chapters be "metropolitan", we now allow more variation in composition. Determine benefits of membership other than being a member of an honor society. Review chapter vitality and national programs for chapters; Develop new ideas and strategies for recruitment & retention of members. Review of at-risk chapters and their impact on the future of the organization and recommend ways to revitalize them.
4. **Visibility & Publicity:** Review how we communicate to individuals outside of our membership; Discuss recruiting strategies for members and develop an "elevator pitch" for the Society; evaluate all types of communications with the membership, including *The Iota*, Website, Facebook page, LinkedIn group, emails, mailings to chapters, etc. and determine their effectiveness. Form a committee to generate content for social media pages.
5. **Long Range Planning:** Review status of the organization in context of other STEM and women-focused groups and identify gaps in those groups that Iota Sigma Pi can fill. Articulate long-term goals with specific objectives/action items; discuss fundraising/grant opportunities; evaluate convention program.
6. **Members at Large (MAL):** Review current status; Discuss issues and develop ideas to increase MAL involvement/interaction and how the organization can serve the MALs; choose the outstanding chapter award recipient.
7. **Official Documents, Ceremonies, & Resolutions:** Review all documents to ensure they are current and make a list that shows all documents that need to be updated after new NC installation; Assemble list of acknowledgements for convention; Read resolutions at the assigned time during convention.

At registration, each delegate will select three committees and rank them according to their interest. Then, NC will review all of the delegates' preferences and generate the committee members. Prior to Convention, you will be notified what Committee you will be serving on and receive the minutes from that committee from the prior Convention. A goal of the committee meetings for this Convention is to establish ways in which the serving delegate and/or members of their chapter can become actively involved in the Society on a national level.

### CALL FOR CONVENTION POSTERS

Poster Session, Thursday, June 22, 2023

Deadline: May 25, 2023

All chapters and National Council members are encouraged to submit posters on their research and/or chapter activities over the past three years. Please consider submitting an abstract. A submission form can be found on the Iota Sigma Pi website <https://www.iotasigmapi.org/abstract-submission>.

## In Memoriam of Lois J. Durham 1931 - 2022

Recently, we received notice from a trust officer at a bank that we were receiving a bequest from a trust set up by Lois Durham of Palo Alto, CA. Lois was over 90 years old and had worked at Stanford University for many years. She left us **\$100,000!** The money will become part of our new Endowment Fund. She wanted the money to be used for a Lois Jean Durham Scholarship. The Convention Committee on Awards will decide on the details.

We do not know much about Lois's life, but here is some text from an article about Lois when she was honored by Stanford for her 35 years of service:

Lois Durham, the longtime manager of the Nuclear Magnetic Resonance Laboratory in the Department of Chemistry, was honored April 16 for her 35 years of service to Stanford. "My job is constantly changing," she said at an annual champagne reception honoring 64 staffers from the School of Humanities and Sciences. "It's an exciting field, and it's always been challenging."

Associate Dean Hans Andersen praised Durham, who earned a doctorate in organic chemistry from Stanford, as a scientist and the guardian of a lab that does analytical research into the electronic environment within molecules. Durham is responsible for training operators and making sure that five instruments used by researchers perform properly. "She's literally trained thousands of undergraduates," Andersen said, and "she saves Stanford money by keeping old machines running." *Stanford Report, April 23, 1997*

### A Message from the National Treasurer by Anna Ratliff

We are fast approaching our triennial convention this summer! In order to successfully analyze and discuss the finances of the past three years, we must have all chapter annual financial reports. Financial report forms can be found online at: <https://www.iotasigmapi.org/financial-report> . We ask that these are submitted by June 1, 2023 and should include all financial information from July 1<sup>st</sup> 2022 to May 31<sup>st</sup>, 2023. Please make sure to have these completed in a timely fashion. If you have any questions, please email the National Council Treasurer, Anna Ratliff, at [ispnctreasurer@gmail.com](mailto:ispnctreasurer@gmail.com).

A major responsibility of a National Treasurer is determining the amount of money that should be rebated to each chapter based on their membership numbers. To receive their rebate check, the chapter treasurer needs to send a financial report of their chapter finances. Rebate check will **NOT** be mailed to chapters that did not submit reports.

### Call for Nominations for National Council by Megan Sassin, Immediate Past President

This year we will nominate and elect a new Board of Directors, the National Council. While some current members will continue for another term, many will be replaced. There is a list of the NC members and their positions at the end of this edition of *The Iotan*. Serving on National Council is a great way to meet women from around the country who share your interest in encouraging women in the chemical sciences. To nominate yourself or another person, email Immediate Past President Megan Sassin at [meganbourg@gmail.com](mailto:meganbourg@gmail.com) before March 10. Include your contact information. (If you nominate another person, be sure to ask them first!)

## Iota Sigma Pi Gives 2023 National Honorary Member Award to Angela K. Wilson of Michigan State University.

Dr. Wilson is John A. Hannah Distinguished Professor of Chemistry at Michigan State University (MSU), an Associate Dean for strategic initiatives in the MSU College of Natural Science and the Director of the MSU Center for Quantum Computing, Science, and Engineering. She is also 2022 President of the American Chemical Society (ACS), a member of ACS board of directors, 2016-2018 Director of the Division of Chemistry at the U.S. National Science Foundation (NSF), and a recipient of numerous national and international honors that include International Union of Pure and Applied Chemistry (IUPAC) Distinguished Woman in Chemistry and ACS's Wilfred T. Doherty Award. The award will be presented to Dr. Wilson at the Iota Sigma Pi 2023 Triennial Convention in suburban Chicago in June 2023.



Dr. Wilson has earned a Ph.D. in chemical physics from the University of Minnesota and a B.S. in chemistry from Eastern Washington University. She then was a postdoctoral fellow at the Environmental Molecular Sciences Laboratory at Pacific Northwest National Laboratory in theoretical physical chemistry.

Dr. Wilson is a leader in the field of computational/theoretical physical chemistry. Her primary focus has been development of *ab initio* approaches for accurate prediction of thermochemical properties of molecules. Her research spans quantum mechanics, quantum dynamics method development, drug design, environmental chemistry, and catalysis. One of her most notable achievements is successful development of correlation consistent Composite Approach (ccCA) to molecular thermochemistry that allows to predict thermochemical properties of main group, transitional metals, and entire periodic table with unprecedented accuracy. She has designed complete basis set (CBS) strategies that allow it to (approximately)

overcome errors in the exact description of molecular orbitals. Her methodology is used worldwide and is currently included in most computational chemistry software packages such as Gaussian, GAMESS, NWChem, ORCA, and others. To quote one of the nominators, "Professor Wilson's research has made invaluable contributions to our understanding of a broad range of challenging chemical problems."

Her research resulted in over 180 publications to date with >13,600 citations. She has also edited 6 books, including "Pioneers in Quantum Chemistry".

In addition to her research work, Dr. Wilson has devoted much of her time to service. She is a member of editorial boards of multiple scientific journals such as Journals of Physical Chemistry, Journal of Physical Chemistry Letters, International Journal of Quantum Chemistry, and many others, and has been an Editor of Computational and Theoretical Chemistry. She had also served on multiple Scientific Advisory Committees for Conferences and workshops, chaired the 2018 Gordon Conference on Computational Chemistry, and was the organizer of the physical chemistry program at the 2017 IUPAC World Congress. This list is not complete.

Dr. Wilson has invested significantly in education, mentoring over 150 students and postdoctoral fellows, with 25 students earning Ph.D.'s and 5 students earning M.S. degrees. Among her trainees are impressively accomplished scientists and winners of most prestigious national scientific awards. She had been very active in science outreach activities on local, national, and international levels. Dr. Wilson takes part in career and curriculum development for undergraduate students, trying to incorporate quantum science into a national interdisciplinary curriculum. She has also been a long time advocate for women chemists, leading an international recognition program via IUPAC and several Gordon Research Conference's Power Hours discussion groups addressing challenges women face in science.



**Iota Sigma Pi Gives 2023 Violet Diller Award for Professional Excellence to Annmarie Grover Carlton of University of California Irvine.**

*Iota Sigma Pi, the National Organization for Women in Chemistry, has selected Dr. Annmarie Grover Carlton of University of California Irvine as the recipient of the 2023 Violet Diller Award for Professional Excellence. The Violet Diller award is a triennial professional award and serves to recognize outstanding contributions to chemistry and allied fields by a woman.*

Dr. Carlton is a Professor of Chemistry at the University of California Irvine. She has earned her B.S., M.S., and Ph.D. in Environmental Engineering from Rutgers University. After working at the EPA as a Research Scientist, she joined Rutgers University and then University of California Irvine. She also served as a Revelle Fellow to the Office of Science and Technology Policy (OSTP) in the White House where she advised policy makers on climate change and air pollution issues. The award will be presented to Dr. Carlton at the Iota Sigma Pi 2023 Triennial Convention in suburban Chicago.



Dr. Carlton's research is focused on Atmospheric Chemistry and Climate. She studies formation of organic particles, their chemistry and impact on human health and welfare. Her work led to a paradigm shift in understanding the particle's behavior and the way it was predicted with models. She designed and implemented several impactful field studies such as the Southern Oxidant Aerosol Study (SOAS), the largest study of air pollution in a decade, that involved over 20 research groups and over \$20 million of funding. The studies led to remarkable results and allowed them to address existing discrepancies between model predictions and experimental observations. Recently she has also initiated a project to use machine learning in prediction of the particle's chemistry.

She has authored over 70 publications in high impact peer reviewed journals, with more than 6000 citations. As a result of her achievements, she has been recognized by numerous prestigious awards like the American Geophysical Union Ascent award and the American Chemical Society Women's Chemist Committee Rising Star Award. She has also received multiple awards from the EPA, Rutgers University, and the American Association of Women Geoscientists.

Dr. Carlton is passionate about translating and delivering scientific knowledge to the general public and policy makers and is very active in science outreach. Her colleagues have enthusiastically commented on her leadership and communication skills, creativity, and mentorship. As one of her notable nominators stated: "Dr. Carlton is a force for good. Through her engagement with the broader community, she has brought science to the people."

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