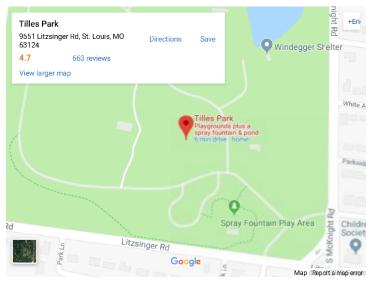
## **Chemical Bond, May 2019**



# Vol. 70, No. 5, May, 2019

# Save the Date: the 2019 STL ACS Section Picnic is Coming!

first published 28 February 2019 Join us for the 2019 Summer Picnic! Chemists like a party as well as the next science nerd. We've been doing this summer picnic thing since 2005 ... and we hope this year will be great!



#### Date: Sunday June 9, 2019

Time: 1-5 PM Location: Tilles Park - Windegger Shelter

Address: 9551 Litzsinger Rd, St. Louis, MO 63124

RSVP Here: https://goo.gl/forms/eJi7rWTPqCQZruif2

If you have any questions, please contact Immediate Past Chair, Ben Barth. Bring a lawn game, your friends and family, and enjoy some BBQ and good company!

#### BoB reports in, lately first published 13 April 2019

Thirty-eight students from seven area high schools competed in the "Battle of the Burets" on February 25th, 2019. Kevin Tucker, Assistant Professor of Chemistry at SIU-Edwardsville, hosted the event. Professor Tucker's account of the proceedings narrowly missed the March issue of the Chemical Bond, and somehow didn't appear in April, either. Now, May ... is a different story. This one:



Teams titrating during the Battle of the Burets

Each team completed six titrations scored based on relative error. The top team averaged less than 2% error. The top six teams received trophies and a round of applause from the other participants. Congratulations to Mary Institute and Country Day School (MICDS) and teacher Kelly Anderson, who led her students Meredith Goldberg and Trisha Bhattacharyya to a first place finish. Clayton High School's team (teacher Nathan Peck) of Myles McCarthy and Emilia Roas-Linhard took second place. Clayton High School also had teams tie for both third and fourth place. In third place was Richard Cheng and Erik Tomasson and in fourth place was David Corbo and Hongkai Jiang. Sharing third place were Robert McKnight and Keelyn Legler from Parkway West High School with coach Jan Keller. Tying for fourth place were Jude Sorkin and Alex Migala of MICDS.

Thank you to all of the teachers for encouraging your students to participate and congratulations to all the participants on a job well done! If you know a high school teacher that would be interested in participating in this event in the future, please email Dr Tucker (kevtuck@siue.edu) referencing Battle of the Burets and asking to be added to the distribution list for the event.

Results summary.



Winning titrators sport lab duds, smiles, and trophies

Place	Contestants	School	Teacher
1st	Meredith Goldberg Trisha Bhattacharyya	Mary Institute and Country Day School	Kelly Anderson
2nd	Myles McCarthy Emilia Roas-Linhard	Clayton High School	Nathan Peck
3rd (tie)	Richard Cheng Erik Tomasson	Clayton High School	Nathan Peck
	Robert McKnight Keelyn Legler	Parkway West High School	Jan Keller
4th (tie)	David Corbo Hongkai Jiang	Clayton High School	Nathan Peck
	Jude Sorkin Alex Migala	Mary Institute and Country Day School	Kelly Anderson

# Year in review for "Chemistry is pHun"

### first published 25 April 2019

Our program year is the school year, so by now, we have mostly wound up and wound down. During this past program year, "Chemistry is pHun" outreach activities benefited from the involvement of many excellent volunteers. The efforts of these volunteers made it possible to present 27 programs that reached 1,083 school children at 14 different schools or organizations in the Rockwood and Kirkwood School Districts.



Dr. Anuradha Vummenthala advises students on the titration of fruit juices to determine total relative acid content during workshop "Acids, Bases and the Scientific Method".



"Chemistry is pHun" presentation at Stanton Elementary School: Will Ridley from the St. Louis Section-ACS with Maryville University students Morgan Bertolino and Caleb Holaway. ©Photo by Jerry Naunheim Jr.

#### New partnership

Dr Anuradha Vummenthala, Assistant Professor of Chemistry at Maryville University, saw an opportunity for her students to partner with "Chemistry is pHun" and the St Louis Section of ACS and assist with "States of Matter" presentations to 2nd graders in the Rockwood and Kirkwood School Districts. The 2nd grade students enthusiastically received presentations by Maryville students Fujr Ibrahim and Marilyn Vazquez at Pond Elementary School on November 1, and by Morgan Bertolino and Caleb Holaway at Tillman Elementary School on December 16, and Stanton Elementary School on March 7.

Constance Gibbs with Integrated Marketing and Communications at Maryville, proposed an article for the fall issue of the Maryville Magazine describing the partnership, an idea that was endorsed by the Rockwood School District Partners-in-Education program and the 2nd grade teachers at Stanton Elementary School. Photos were taken during the March 7th "States of Matter" program at Stanton Elementary School and plans for an article in Maryville Magazine are underway.



Chemistry is pHun presenters at Expanding Your Horizons Workshop held at Saint Louis University, March 12, 2019. Left to right – Andrea Roma, Dr. Anuradha Vummenthala, Dr. Amy Kerkemeyer and Rhonda Woerndle.

### STEM workshops

On March 12 at Saint Louis University, "Chemistry is pHun" presented a workshop titled, "Acids, Bases and the Scientific Method" at the Expanding Your Horizons Conference sponsored by the Mathematics-Science Network of Greater St Louis. The conference is offered each year in the spring to encourage young women in grades 7-10 to consider a career in science, technology, engineering or mathematics (STEM).

St Louis Section members Dr Amy Kerkemeyer, Rhonda Woerndle, Andrea Roma and Anuradha Vummenthala presented the workshop in three sessions of 20 students each. The presenters described their careers and then worked with the students to conduct an experiment and test their hypotheses for the most acidic juice by titrations of lemon, orange, and grapefruit juice using red cabbage indicator, sodium hydroxide, and citric acid standard.

#### New venues

Ridge Meadows Elementary School in the Rockwood School District and Tillman Cub Scout Pack 457 in the Kirkwood School District received "States of Matter" presentations for the first time. New volunteers, Andrew Grattendick and Sean Whittemore, graciously donated time for school presentations and helping with supplies procurement, respectively. In addition Sensient Company through Sean Whittemore generously donated food-coloring dyes to be used to color Elmer's glue for Glue(p) preparation in "States of Matter".

For more information on volunteer opportunities with "Chemistry is pHun" please contact Will Ridley, email ridleywp@att.net or phone 314-920-1507.

Guest author: Will Ridley Coordinator, "Chemistry is pHun"

### Note added by Editorial Staff



William Ridley, coordinator of the

## Chemistry is pHun program

#### Wrightonpalooza! first published 29 April 2019

#### Submitted by Natalie Lafranzo

What happens when chemists retire? We make bad chemistry jokes because all the good ones Argon!

Jokes aside, the when Chancellor Mark Wrighton announced his retirement from Washington University in St. Louis, alumni and students of WashU and the Local Section of the American Chemical Society wanted to do something to honor the legacy that he leaves. As an academic chemist, Mark Wrighton has an impressive research resume, and as an academic leader his impact will be felt for many years to come, throughout the St. Louis region and beyond. Without question, the profession of chemistry has risen in stature due to Dr. Wrighton's contributions.

Working closely with the leadership team at Washington University, members of the STL ACS YCC and WashU faculty, staff and alumni helped integrate some chemistry fun into Dr. Wrighton's retirement celebration. The event, coined Wrightonpalooza, was an afternoon of music, food, and fun.

With the generous fundraising efforts of many of our members, we were able to serve hundreds of scoops of liquid nitrogen ice cream in collaboration with Ices Plain and Fancy, St. Louis' Nitro Ice Cream Parlor and Catering:



Jana and Victoria of the STL ACS YCC show off the special flavors offered at the event - featuring "Battling Beary" Cherry Cordial and Chancellor Wrighton's NaCl Carmel:



We also prepared a giant "Periodic Table of Elemental Gratitude" where attendees could write personalized notes to Dr. Wrighton and place them on their favorite element

Here's a photo of STL ACS Past Chair and Current Treasurer, Jeff Cornelius with Mark Wrighton in front of the Periodic Table of Well Wishes!



If you can't see it - Dr. Wrighton is wearing one of our "Proud to be a Chemist" mole pins - a special gift for our chemistry friends who attended the event. The WashU Bear even got in on the fun, leaving his beary-special thanks!



The celebration was epic, and we're grateful to have been a part of this special day honoring a chemist who's made a big impact in the St. Louis Community. Do you know of another local chemist who deserves to be recognized? Consider nominating them for one of our awards (like the St. Louis Award!, or reaching out to us directly to see how we can help champion chemists in our local community!

More photos of the event may be found here:

More of Wrighton's awards, recognitions, and accomplishments can be found here:

# YCC leverages social media

first published 30 April 2019

The local section Younger Chemists Committee spring event featured a workshop on leveraging social media to build your network and help you successfully navigate your job search.

Held on April 17, 2019, in conjunction with the Graduate Professional Council of Washington University, facilitators Michelle Repice and Thi Nguyen revealed some LinkedIn and Twitter tips and tricks for professional networking and job hunting. The presentation was filled with fun examples and take-home messages. Interactive Q&A added depth and detail by directly targeting the needs of the audience.

Dinner - provided by the YCC and GPC - preceded the workshop and informal networking followed. It was a great evening of learning and networking for our LS YCC!



#### Awards Night 2019 first published 30 April 2019

Submitted by Sophia Hayes

Awards Night was a particular special evening this year, with honors for many, dinner and conversation amongst chemical scientists (current- and future-) from across the region, and celebration of achievements. Organized expertly by Prof. Leah O'Brien (SIUE), the event was held at Vue17 in Clayton that gave us exceptional 180degree vistas of the St. Louis skyline and a colorful ACS-themed display. Honors were presented to both high school students who had competed in the 2019 High School Chemistry Contest and their teachers, with citations given by Myron Reese. We also recognized outstanding college juniors on their quests to become chemists across the region, presented by Dr. Michael Hauser, Chair of College Student Awards. Arthur Wilde of Bayless High School was given an award as our 2019 STLACS Teacher-of-the-Year and Prof. Sally Schwartz, Prof. of Radiology and co-director of the Cyclotron Facility at WUSM, was cited for her scientific contributions as the 2019 Chemical Science and Technology Award. Both gave inspiring and heartfelt presentations in front of a large audience, including a number of high school students and college juniors who must be thinking about the wide range of chemical science career paths shown by these awardees.

An engaging and laughter-filled after-dinner presentation was given by Prof. Rich Loomis (WashU), who brought out copies of his 8th grade notebook from class, if only to let the high school students know they aren't alone in their head-scratching moments over the vagaries of quantum mechanics, which Prof. Loomis continues to study. (Remember everyone: waves, waves, waves.)

A delightful evening was had by all. We hope you'll all join us next year, for the terrific views, wonderful conversation, laughter and companionship, all in the name of celebrating chemistry!





Professor Sally Schwartz of Washington University accepts

or Rich Loomis of Washington University delivers Profes his after-dinner presentation.

the Chemical Science and Technology Award

### Nominations for 2020 officers incoming soon first published 30 April 2019

In the next few weeks, you will receive a SurveyMonkey link about nominations for the 2019 election in which officers are elected for terms beginning in 2020. Please consider nominating one or several of your talented colleagues to participate in the governance of the local section and contribute to the building excitement in the local chemistry community. Sharp-eyed members will notice that we are not seeking nominations for Councilor or Alternate Councilor this year. This is due to Councilor reallocations set by the national ACS at the last national meeting.

If you would prefer not to use an online service, you can send this pdf to the section secretary by email (rohrs@wustl.edu) or you can print the ballot and mail it (Henry Rohrs, 440 South Gore Avenue, Webster Groves, MO 63119).

Please keep in mind that you should only one method to nominate people: the SurveyMonkey link, e-mailing the PDF to Henry, or mailing Henry.



#### **Board of Directors**

St Louis Section-ACS Board of Directors meets the second Thursday of each month, usually at the Glen Echo Country Club (map and driving directions). Meetings are open to all members, and all are encouraged to attend. Elected officers and chairs of major committees vote on questions put to the Board; others in attendance have voice but no vote.

If you want to attend for dinner, please contact the section Chair at least a week in advance. The usual cost of the dinner is \$20 (\$10 for post-docs and unemployed members). Bar service and dessert are optional extras. Members wishing to become active in section activities are welcomed for their first dinner as guests of the section.

#### Date: May 9

Social hour, cash bar: 6:00 pm Call to order: 6:30 pm (Board Meeting suspended during dinner service)

#### Future meetings: Sep 12, Oct 10

Maryville University

Seminars are approximately once a month on Thursdays, 4-5 pm. Details are available on the university's seminar page. All seminars are free and open to the public. Contact Jason Telford for more information.

#### Saint Louis University

Seminars are generally on Fridays at 12 noon in Carlo Auditorium, Tegeler Hall, unless noted otherwise. Refreshments follow. For the most up-to-date information, refer to the department's seminar page or contact Brent Znosko, znoskob@slu.edu.

#### University of Missouri–St Louis

Mondays at 4 pm in 451 Benton Hall, unless otherwise specified. Refreshments 15 minutes prior to seminar time. For timely information on visiting seminar speakers, contact the Chemistry Department, 314.516.5311, or visit the seminar schedule. The department has additional seminar series which are also accessible from this page.

#### Washington University

Seminars are in McMillen 311 at 4 pm unless otherwise noted. For information, consult the departmental events page. Related seminars, including endowed seminar series and the WU med school biochemistry series, are linked here as well.

#### POLYMER STANDARDS FOR GPC/SEC MOLECULAR WEIGHT ANALYSIS **GPC/SEC COLUMN REPACKING**

American Polymer Standards Corporation 8680 Tyler Boulevard, Mentor, OH 44060 Phone: 440-255-2211 Fax: 440-255-8397





#### MATERIALS CHARACTERIZATION CHEMISTRY MORPHOLOGY STRUCTURE

OM / SEM / EDXA / EPA / WDXA, XRF / ESCA / AUGER / XRD DSC / TGA / MFTIR

3815 LANCASTER PIKE WILMINGTON DE. 19805 Voice 302-998-1184, Fax 302-998-1836 E-Mail micronanalytical@ compuserve.com WEB PAGE : www.micronanalytical.com



kteal candidate should have 5-10 years experience in radiosynthesis using carbon-14 and tritium. Candidates with experience using carbon-13 and deuterium will also be considered. Applicant must have extensive experience in multi-step, small-scale organic radiosynthesis, as well as vacuum line techniques to handle, purify, and transfer small amounts of volatile chemicals under vacuum. Ph.D. required.

#### Biochemist

Applicant must have experience with enzyme extraction, biochemical synthesis, gel electrophoresis; purifications by EP, TLC, and paper chromatography. Ph.D. required.

Analytical/Preparative HPLC Chemist Ideal candidate should have experience in both analytical and preparative HPLC. Applicant must have experience with analytical and preparative HPLC techniques for radioactive chemicals. B.S. in related field required, M.S. or Ph.D. preferred.



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Correspondence, letters to the editor, etc., should be emailed to editor@stlacs.org or mailed % St Louis Section–ACS, PO Box 410192, Saint Louis, MO 63141-0192

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