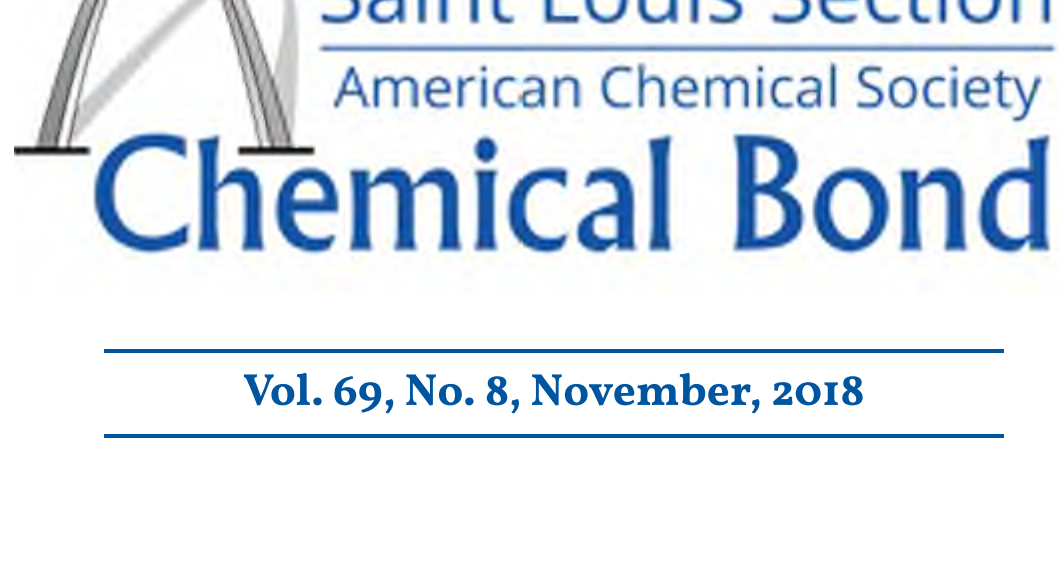


Chemical Bond, November 2018



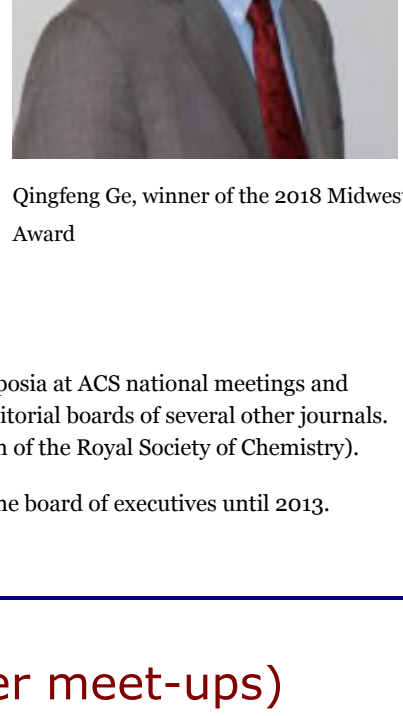
Vol. 69, No. 8, November, 2018

Qingfeng Ge of SIUC is 2018 Midwest Awardee

first published 15 October 2018

Please meet Qingfeng Ge, the recipient of the 2018 Midwest Award. Dr Ge will officially receive the 74th Midwest Award and keynote the award symposium at the Midwest Regional Meeting in Ames, Iowa, on October 22nd.

Dr Qingfeng Ge is a Distinguished Scholar at Southern Illinois University—Carbondale and Professor in the Department of Chemistry and Biochemistry. Dr Ge received his education from Tianjin University, China, and gained BS, MS, and PhD degrees in Chemical Engineering. He worked as a postdoctoral scholar in chemistry departments at Copenhagen University, Denmark, and Cambridge University, UK, in experimental and computational surface sciences. He moved to the USA at the end of 1999, starting as a Research Scientist at University of Virginia in computational heterogeneous catalysis. In 2007, he joined the Department of Chemistry and Biochemistry at SIUC and was promoted to Associate Professor in 2007 and Professor in 2010. He is the winner of the 2018 University-level Scholar excellence award and was granted the Title of Distinguished Scholar. He has been a guest professor at Tianjin University since 2007 and Taiyuan University of Technology since 2010.



Qingfeng Ge, winner of the 2018 Midwest Award

Dr Ge's experience ranges from experimental characterization of catalysts and kinetic modeling of catalytic processes to first-principles-based simulations of materials. A main thrust of his research program is using modeling and simulation to address materials issues related to energy and environment, including CO₂ conversion and utilization, catalytic conversion and upgrading of biomass-derived chemicals, and hydrogen storage. Current research projects include hydrogenation and electrochemical reduction of CO₂, CO₂ coupling with methane, and hydrogen storage properties of graphene-confined complex metal hydrides. In 2005, he was one of 70 recipients of a Presidential Hydrogen Fuel Initiative grant. His research group at SIUC has been continually supported by grants from the US Department of Energy and the National Science Foundation. He has authored or coauthored more than 140 peer-reviewed publications and delivered about the same number of invited presentations and seminars. A significant portion of his publications have resulted from collaboration with experimental groups.

Dr Ge played leadership roles in promoting theory and computation in energy-related applications and organized several symposia at ACS national meetings and international conferences. He currently serves as Associate Editor of the *Journal of CO₂ Utilization* (Elsevier) and is on the editorial boards of several other journals. He was a guest editor for *Catalysis Today*, *Topics in Catalysis* and *PCCP (Physical Chemistry, Chemical Physics, a publication of the Royal Society of Chemistry)*.

Dr Ge served as Chair of the Southern Illinois section of the American Chemical Society in 2011 and continued as member of the board of executives until 2013.

The Midwest Award is administered by the Saint Louis Section—ACS.

A River Runs Through It (area high school chem teacher meet-ups)

first published 16 October 2018

There has long been a Saint Louis Area discussion group devoted to high school chemistry teachers. It goes by the acronym SLACKERS (St. Louis Area Chemistry Knowledge Educational Resource Shapers, which seems kind of forced to me, but at least it's pronounceable). Bob Becker at Kirkwood High School is the coordinator (and more details about their calendar below). Meetings of the group have always landed at one venue or another on the western shore of the mighty Mississippi, and that has not always been attractive to HS chem teachers in Illinois.

Now, those Illini HS chem teachers have taken matter(s) in their own hands and formed a discussion group, *Think Like a Proton*, that does not require an interstate bridge crossing to attend.

The inaugural coordinator is Elisabeth Knerim at Belleville Township High School, email eknerim@bhs201.org. Elisabeth describes the discussion group as "a share-a-thon for teachers to exchange their ideas about chemistry activities, demos, and labs! The hope is to share ideas about best practices and discuss awesome ways to engage students in chemistry in an informal setting."

Monthly meetings have been set for the Fall semester. All take place from 5:30 to 7:30 pm at the SIUE STEM Resource Center, Science East Room 1276. The September meeting is obviously history, but feel free to jump in any time. All are welcome; the events are free; but please let [Elisabeth Knerim](mailto:Elisabeth.Knerim) know you are coming.

September 20 topics

- Classifying Matter
- Conservation of Mass
- Physical/Chemical Properties/Changes
- Separating Mixtures

October 11 topics

- Periodic Trends
- History of the Atom
- Atomic Structure
- Isotopes

November 8 topics

- Electromagnetic Spectrum
- Quantum Model
- Electron Configuration
- Introduction to Lewis dot structures

December 6 topics

- Bonding
- Naming
- VSEPR Shapes
- Polarity

Interested in attending? Please come ready to share an idea about that month's topic or something that you will be doing in the next month that you are excited about. We will be in a science classroom, so if you would like to actually model the demo, lab or activity, you may do so. Feel free to share copies of handouts (electronically or hard copy) with other attendees.



On the other bank of the Mississippi, SLACKERS meet once a month, alternating on Wednesdays and Thursdays. They don't have a schedule of topics for the fall, yet, but you can join them by contacting [Bob Becker](mailto:Bob.Becker), the group coordinator.

They met the first time this semester on Sep 26 at 7 pm at Kirkwood High School, 801 West Essex, Kirkwood. Refreshments were provided! Bob Becker shared a few things and provided some free take-aways too! When the venue is Kirkwood High School, you can find the group in Room SC-210. Park on the Dougherty Ferry lot and follow the signs.

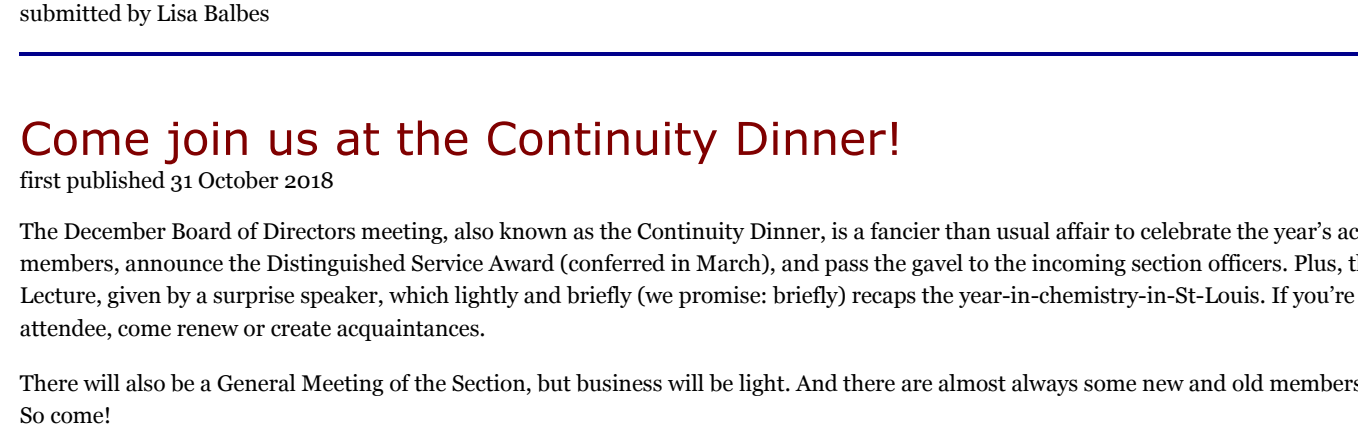
Meetings convene at 7 pm, on the following dates for the remainder of the year:

- Thurs, Oct 25
- Wed, Nov 7
- Thurs, Dec 13
- Wed, Jan 16
- Thurs, Feb 21
- Wed, Mar 13
- Thurs, Apr 11
- Wed, May 9

Scary good science at this year's Fright Fest

first published 24 October 2018

On Sunday, October 14th at the Cub World Pavilion on the Beaumont Scout Reservation, approximately 700 Cub Scouts entered an outdoor science lab weary from their haunted hike and created pumpkin guts and snot (aka orange or green slime). They learned about non-Newtonian fluids, and polymer chemistry, then worked in pairs to make their own slime, which they were able to take home. A total of 14 volunteers from St. Louis University, Washington University, ACS, and Troop 371 assisted with the event, which ran from 2pm to 9pm. More than 75 other attendees were provided. At least one scout cried when his mother made him stop playing with the slime and put it in the bag, and at least one adult commented that they now understood polymer science in a way they never had before.



submitted by Lisa Balbes

Come join us at the Continuity Dinner!

first published 31 October 2018

The December Board of Directors meeting, also known as the Continuity Dinner, is a fancier than usual affair to celebrate the year's achievements, recognize certain members, announce the Distinguished Service Award (conferred in March), and pass the gavel to the incoming section officers. Plus, there is the Henry Godt Memorial Lecture, given by a surprise speaker, which lightly and briefly (we promise: briefly) recaps the year-in-chemistry-in-St. Louis. If you're not a regular ACS Meeting attendee, come renew or create acquaintances.

There will also be a General Meeting of the Section, but business will be light. And there are almost always some new and old members whom we see only at this event. So come!

When: Thursday, December 13

Where: [Pastaria](#) in Clayton – Pastaria has an upstairs event space we will be using (please see the restaurant host for elevator access. Parking in the adjacent Centere Parking Garage will be validated. Please bring your ticket to the host for validation.

Schedule of events:

- 6:30 PM Social hour with appetizers, cash bar
- 7:00 PM Meeting and Dinner

Please register by Dec 10 by contacting Ben Barth ([314-301-9268](tel:314-301-9268) or chair@stlacs.org)

Cost of dinner is \$25, payable by cash or check or [PayPal](#) at the dinner. Checks may also be mailed in advance to the STLACS Treasurer, Jeff Cornelius:

Jeffrey Cornelius
Principia College
1 Maybeck Place
Elsah, IL 62028

Know an outstanding High School LANCASTER Teacher? Why not nominate them?

first published 31 October 2018

The St. Louis Section of the American Chemical Society is seeking nominations for the 2019 High School Chemistry Teaching Award. This award is given to recognize and encourage outstanding teachers of high school chemistry within the St. Louis Section. The award winner will receive a \$500 check and a plaque, presented at an awards dinner and program in April.

Please consider nominating a teacher in the Greater St. Louis Area who exemplifies excellence in the teaching of high school chemistry.

The nomination must include the following items:

- 1) The Nominee Information Form should be completed at <http://tiny.cc/elgyoy>
- 2) A curriculum vitae or resume that includes a list of the nominee's honors, professional activities, and additional evidence of service to the profession must be sent to acsawardstl@gmail.com
- 3) Recommendations for the nominee should be completed at <http://tiny.cc/bngyoy>

At least one recommendation must be from the nominee's current principal or supervisor. Additional recommendations may be completed by colleagues, members of the American Chemical Society who are familiar with the nominee's achievements, former students, or parents of former students.

All materials must be submitted by December 31, 2018.

Please address any questions to Rob Lamb at acsawardstl@gmail.com

Saint Louis Award Symposium 2018 program

first published 31 August 2018

The 2018 Saint Louis Award Symposium—Friday, Nov. 2nd—is sponsored by the St. Louis Section of the American Chemical Society and Washington University Medical School in St. Louis, with additional support from ProteXase Therapeutics.

Honoring
Dr. James Janetka
 Associate Professor
 Department of Biochemistry and Molecular Biophysics
 Adjunct Professor, Department of Chemistry
 Washington University in St. Louis
 2018 Saint Louis Award Winner
 Erlanger Auditorium, McDonnell Sciences Building
 Washington University School of Medicine in St. Louis

Mimicking Nature's Biomolecules in Transformational Drug Discovery

1:00 pm	Suzy Hartmann —Associate Director, Biologics Sourcing, MilliporeSigma, Chair Elect of the St. Louis Section, American Chemical Society <i>Welcome and General Introductions:</i>
1:05 pm	Dr. John Cooper — Professor and Head, Department of Biochemistry and Molecular Biophysics, Washington University School of Medicine in St. Louis, Symposium Chair <i>Introduction and Salute to Dr. Janetka</i>
1:10 pm	Dr. James Janetka , Associate Professor, Department of Biochemistry and Molecular Biophysics, Washington University School of Medicine in St. Louis, Awardee <i>From Ligands and Substrates to Drugs: The Power of Rational Design</i>
1:50 pm	Dr. David Crich , Professor, Department of Chemistry, Wayne State University <i>Shaping Next Generation Aminoglycoside Antibiotics for Treatment of Multidrug Resistant Diseases</i>
2:30 pm	Dr. Robert Galemmo , President, ProteXase Therapeutics <i>Advances in Drug Hunting: Taking a Hint from Nature and the Literature</i>
3:10 pm	Refreshment Break
3:30 pm	Dr. John Talley , Chief Scientific Officer, Euclides Pharmaceuticals <i>Discovery of Cox-2 Inhibitors</i>
4:10 pm	Dr. Tomi Sawyer , Distinguished Scientist, Merck & Co. <i>Peptide Drug Hunter: An Extraordinary Trek into Intracellular Target Space</i>
4:50 pm	Dr. John Cooper <i>Concluding Remarks</i>
5:00 – 6:00 pm	Reception immediately following
6:30 pm	Saint Louis Award Banquet , Glen Echo Country Club 3401 Lucas and Hunt Rd, Normandy, MO Reservations required (See link for more information and reservations)

Venue information: See [campus map](#) for the location of Erlanger Hall and various parking options. There is also the convenient MetroLink Central West End station accessible by the Blue and Red lines.

Saint Louis Chemical Science & Technology Award, 2019: call for nominations

first published 31 August 2018

Nominate a member of your team for the Saint Louis Chemical Science & Technology Award. This award is presented to a chemist in the St. Louis area who has demonstrated a high degree of professionalism and scientific contribution. Criteria used to judge the award include technical proficiency, presentations, coaching/teamwork, and additional professional activities. The award will consist of a plaque, a \$1,000 honorarium, and dinner for the awardee and a guest at the annual Recognition Night. The due date is January 1, 2019.

You can find all the details on eligibility, nominating a candidate, and recent winners right [here](#). To submit a nomination, email the Chemical Science and Technology Award Coordinator, David Rhee at david.rhee@bayer.com or call at 314-694-4874.

Meeting & Seminars

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: Nov 8 Social hour, cash bar: 6:00 pm Call to order: 6:30 pm (Board Meeting suspended during dinner service) Future meetings: Dec 13 (Continuity Dinner), Jan 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, znskob@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.
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EMPLOYMENT OPPORTUNITIES

Experienced Organic Radiochemist
Ideal 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.

About the Chemical Bond

The *Chemical Bond* is published at www.stlacs.org January through May and September through December by the St. Louis Section—American Chemical Society. If you would like to receive email notification when each issue is posted, you can subscribe to our email list and join the "Chemical Bond reminders" group.

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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Editor	Jeramia Ory	314.446.8169 editor@stlacs.org
Associate Editor	Eric Ressler	314.962.6415 editor@stlacs.org
Assistant Editor & Advertising Manager	Keith Stine	314.516.5346 advmgr@stlacs.org
Business Manager	Donna Friedman	314.513.4388 bizmgr@stlacs.org

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