

The Chemical Record

Volume 56 – Number 1 – February, 2014

Columbus Section of the American Chemical Society, Inc.

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ABOUT THE COLUMBUS SECTION



The Columbus Section of the American Chemical Society comprises approximately 1,500 members who live and work in the following central Ohio counties: Delaware, Fairfield, Fayette, Franklin, Hocking, Knox, Licking, Madison, Marion, Morrow, Muskingum, Perry, Pickaway, Ross, and Union.

The Mission of the American Chemical Society (ACS) is to encourage in the broadest and most liberal manner the advancement of the chemical enterprise and its practitioners. Toward that end, the ACS advances scholarly knowledge, provides professional services and support, communicates with varied audiences, and is actively involved in the science, education, and public policy arenas.

The Columbus Section of the ACS adheres to this mission and the strategic thrusts of the national organization and leadership by providing programs and networking opportunities for Chemistry professionals in Central Ohio.

We invite ACS members and scientists in the community to lend their expertise and talents to our activities in science education, government and legislative policy issues, safety in our industrial plants and in our communities, and care of our land.



IN MEMORIAM: LUCILE E. DECKER

Lucile Ellen Decker, age 86, of Columbus, OH passed away on Tuesday, December 24, 2013 at her residence.

Lucile was born January 4, 1927 in Grand Rapids, MI to the late Bruce and Gladys Thompson. On August 15, 1948, she married The Rev. Clarence F. Decker who survives. Also surviving are two daughters, Ellen Brownlee of Pittsburgh, PA and Dr. Kathleen Decker of Redmond, WA; five grandchildren and two great-grandchildren. Lucile was preceded in death by two sisters.

Lucile had a distinguished academic and professional career. She was a former Senior Associate Editor in the Biochemistry Department at Chemical Abstracts Service. She was a member of many professional associations, published numerous papers in her fields of study and was recognized for her work in two book citations. Lucile's academic achievements included: a Bachelor's degree in Chemistry from Michigan State University in 1948, a Master's degree in Chemistry from M.S.U. in 1952, and a Ph. D in Chemistry from M.S.U. in 1956 where she majored in Biochemistry with minors in organic chemistry and physical chemistry. Lucile was also a Paul Harris Fellow of Rotary International.

A Memorial Service was held on Thursday, January 2, 2014 at St. Stephen's Episcopal Church, 30 W. Woodruff Ave., Columbus, OH 43210. Rev. George Glazier, officiating. Inurnment will follow at a later date at Arlington National Cemetery.

Contributions in Lucile Decker's memory may be made to the Dublin-Worthington Rotary Club Foundation, 2606 Chester Road, Upper Arlington, OH 43221.

Visit www.schoedinger.com to share a favorite memory of Lucile Decker.

Editor's Note: Lucile was a very nice, friendly, intelligent lady and a wonderful ambassador for CAS, ACS, and the Columbus Section. About 35 years ago, the Section sponsored a one-day analytical seminar at CAS, which I attended. During a break, Lucile introduced herself and made me feel welcome to CAS and the Section. She showed me the way to the vending machines and was genuinely interested in me and my background. This was my first exposure to a member of the Columbus Section and Lucile certainly made an excellent impression.

Lucile will be greatly missed, and we extend our condolences to Dutch and the family.



MEETING NOTICE



ACS
Chemistry for Life®

Columbus Section of the American Chemical Society Meeting #869

(Collaboration with ACS Younger Chemists Committee, ACS Careers, and ACS Webinars)

Love Potion # 9: The Chemistry of Scent & Fragrance

Explore the art of chemistry through the production of perfumes used in household products. Join three industry experts as they break down the science of fragrances and how chemists are working to find love potion #9.

Tuesday, Feb. 11, 2014

Longaberger Alumni House,
2200 Olentangy River Road
Columbus, OH 43210

Speakers:

Ms. Virginia Hutchins,
Perfumer, Procter & Gamble

Dr. Jianjun Li,
Principal Scientist, Procter & Gamble

Dr. Diane Schmidt,
Section Head R&D, Procter & Gamble
2014 ACS President-Elect



PROGRAM DETAILS

5:30 – 6:00 PM	Social Hour
6:00 – 7:00 PM	<p>Dinner</p> <p>House Salad</p> <p>Choice of Entrees:</p> <ol style="list-style-type: none"> 1. Tuscan Chicken – Pan Seared Chicken Breast Topped with Artichoke Hearts, Sundried Tomatoes, Kalamata Olive Tapenade, Parmesan Cheese, Capers, and Fresh Herbs 2. Grilled 8 oz. New York Strip – with Wild Mushrooms, Fingerling Potatoes, and Roasted Shallot Demi-Glace 3. Pesto Tofu – Pesto Marinated Grilled Tofu with Goat Cheese Polenta and Seasonal Vegetables with a Balsamic Reduction <p>Desserts: Brownies and Cheesecakes</p>
7:00 – 7:30 PM	Webinar: Love Potion # 9 The Chemistry of Scent & Fragrance
7:30 – 8:00 PM	Live Q&A
8:00 – 8:45 PM	Executive Committee meeting (All section members are welcome to attend)
Cost	\$20 per person members and non-members, \$5 for retired and unemployed members, \$5 per student. New members are free! Payment will be collected at the door; cash and checks accepted. There is no cost to attend the program only. <i>Remember that this is a dinner order and must be paid. Please help control costs by honoring your order.</i>
RSVP	Please use the voice mail reservations service by calling 614-447-3600 extension 7047. Follow the template for reservations*. Alternatively, please send e-mail with the same information to The Columbus Section at the following e-mail address: acscols@wowway.com or use the Meeting Reservation Form on the Section's website.
*Voicemail/e-mail Reservations Template	<ul style="list-style-type: none"> • First and last name: Please spell last name. • Membership category: member, non-member, retired, emeritus, unemployed, and student. • Employer • Please indicate your entrée choice: Tuscan Chicken, New York Strip, or Pesto Tofu. • Your phone number, in case we need to contact you.
Reservation Deadline	Thursday, February, 6th 2014 by noon
Program Contact	Wenbin Qi, 614-260-4179, Qiwenbin@gmail.com
Directions & Parking	<p>Via 315S 315 South to the OSU-Lane Avenue exit. Turn left onto Lane Avenue. Take Lane Avenue to Olentangy River Road (about one mile). Turn left onto Olentangy River Road. The Longaberger Alumni House is the first entrance on the right.</p> <p>Via 315N 315 North to the OSU-Lane Avenue exit. Turn right onto Lane Avenue. Take Lane Avenue to Olentangy River Road (about one mile). Turn left onto Olentangy River Road. The Longaberger Alumni House is the first entrance on the right.</p> <p>Via 71S 71 South to North Broadway exit. Turn right onto North Broadway. Take North Broadway past High Street to Olentangy River Road. Turn left on Olentangy River Road and drive south past Ackerman Road. Turn left into the back entrance of the Fawcett Center and drive around to the Longaberger Alumni House.</p> <p>Parking is free. You may use an OSU parking permit. Or by request, a parking permit can be emailed to you or picked up on site.</p>



ABOUT THE SPEAKERS



Dr. Jianjun Li is a Principal Scientist in the Analytical Global Capability Organization of the Procter & Gamble Company. He received a PhD in Analytical Chemistry from the University of Minnesota (Separation Science and Chromatography). Jianjun's expertise areas include perfume and odor analysis, flavor analysis and sampling techniques relevant to consumers' experiences.



Dr. Diane G. Schmidt is the President-Elect 2014 of the American Chemical Society. She is a Section Head in R&D at The Procter & Gamble Company in Cincinnati, Ohio.

Dr. Schmidt received her Ph.D at the University of Cincinnati in Organic Chemistry.

Her research interests include chemistry as applied to consumer products, carbohydrate chemistry, heterocyclic chemistry, polymers, separations technology and controlled release/delivery systems. Her current responsibilities are in safety and regulatory affairs.



Virginia Hutchins has spent most of her P&G career in Perfume Development, with 12 years in Beauty Care. She is currently a perfumer for Beauty and balances her time between creative perfumery and technical formulation for upstream projects. She is a member of the American Society of Perfumers.

NOTE FROM THE CHAIR

By **WENBIN QI**, SECTION CHAIR

We had a very successful year in 2013. The Columbus Section organized, participated or sponsored many excellent activities. Here is a list of the activities that ACS Columbus Section organized, sponsored or participated in 2013.

Monthly meetings:

- February meeting: *Molecules to Mozzarella*
- March Meeting: OSU CAR Vehicle Electrification and Tour
- April Meeting: *Fracking Facts and Fiction*
- June Meeting: Clippers Game
- September Meeting: *Biobased Resins*
- October Meeting: Tom Barton (ACS President-Elect): *US Education Challenges*
- November Meeting: Sam Kean *The Disappearing Spoon*
- December meeting: *Fracking Environmental Challenges*



Outreach activities:

- Discover Chemistry Day at COSI-Sponsor and demonstrations
- Fountainside Splish Splash Science Day-demonstrations
- National Chemistry Week at the Columbus Public Library
- Chemistry Day at COSI demonstrations

High school chemistry teacher and student activities:

- Chemistry Olympiad
- State Science Day
- High School Teachers workshop

Sponsored activities:

- OSU ChemTalks: Mack Award and Lecture Sponsor
- OSU ChemTalks: Swenton Ouellette Award and Lecture Sponsor
- OSU Chem Talks: Sam Kean Lecture Sponsor

Silver Circle meetings

- Silver Circle Meeting: Battelle Darby Metro Park LEED building and park ecology
- Silver Circle Meeting: USGS Water mapping
- Silver Circle Meeting: Velocys Conversion of shale gas to liquids
- Silver Circle Meeting: Battelle Fouling by low sulfur diesel

And we also published 8 editions of *The Chemical Record*.

We thank everyone who has contributed or participated in these activities. And we hope we will be able to continue to have great local section activities this year and in the future. Programs of our monthly meetings in 2014 have started to frame up well. In February, we will listen to three outstanding scientists from P&G talking about the chemistry of fragrance through a webinar and yes we will be able to interact with them live. In March, we will learn the chemistry in the process of manufacturing man-made diamonds from two local scientists. In April, we will have some fun and get to know many interesting stories of the periodic table. And in May, we will have a presentation from an energetic young lecturer from OSU talking about his innovation in teaching chemistry. And more programs are still coming. I encourage every member to follow our email, website and Chem Record tightly and please don't miss these excellent talks and the opportunity for networking in our monthly meetings.

And we will continue to sponsor and support many other activities listed above this year. We will work very hard to have another successful year in 2014. And as always, if you have any suggestions or comments about anything, please don't hesitate to contact us.



2014 COLUMBUS SECTION EXECUTIVE COMMITTEE AND COMMITTEE CHAIRS

By WENBIN QI, SECTION CHAIR

Chair*	Wenbin Qi	Communications:	
Chair-Elect*	Open Position	<i>Chemical Record</i>	George Greene
Immediate Past Chair*	David Speth	Electronic Communications	Robert Bird
Secretary*	Cynthia Hummel	Hospitality	Gordon Renkes
Treasurer*	Jonathon Newton	Webmaster	Priscilla Ratliff
Treasurer-Elect*	Open Position	Reservations	Yun Gong Wenbin Qi
Councilors*	Lewis Hogarth	High School Chemistry Teachers Group	Jeff Bracken
	Donald Songstad	Hospitality	Gordon Renkes
	Virginia Songstad	Membership	David Speth
Ed King			
Alternate Councilors*	Jeff Trent	National Chemistry Week	John Blaha
	Open Position	Nominations	Karen Irving
Archives and Bylaws	Steven Rosenthal	Patterson-Crane Award	Theresa A. Huston Priscilla Ratliff Steven Rosenthal
Chemistry Olympiad	Mary Whaba	Silver Circle	Tom Weeks Priscilla Ratliff
Columbus Section Award	Lewis Hogarth	Outreach/Kids in Chemistry	Jeff Trent
Fifty-Year Member Coordinator	Wendy Reichenbach	State Science Day	Wenbin Qi Yun Gong
		Tellers	Natalie Chilicki
		Younger Chemists Committee	Rosemary Loza Tom Spilker

*The Executive Committee comprises the Chair, Chair-Elect, Immediate Past Chair, Secretary, Treasurer, Treasurer-Elect, Councilors (3), and Alternate Councilors (3). A quorum, required in order to transact business, constitutes seven of the committee members.

COLUMBUS SECTION AWARD FOR 2014: A GUIDE FOR SUBMISSION OF NOMINATIONS

By Professor Lewis Hogarth

The Columbus Section Award is presented every two years to an outstanding scientist in the area of chemical sciences: chemistry, biochemistry, biomedical sciences, chemical engineering, and the use and promotion of chemical knowledge, amongst many others. The awardee is selected from a group of scientists nominated by their colleagues, and must be within the membership of the Columbus Section of the American Chemical Society...all ACS members residing in the Central Ohio area are automatically members of the Columbus Section.

The award is given in recognition of outstanding achievement in and the promotion of the chemical sciences. Nominees must have, at some time during the period for which their work is to be recognized, been full members of the Columbus Section. The types of accomplishments considered are published research, books, patents, workplace leadership and educational advancements.



The nomination package must include the following items:

- A nomination letter by a member of the Columbus Section;
- At least three letters of support from colleagues who are familiar with the nominee's career and work. The letters must be on "company letterhead" or transmitted in an appropriate format using E-mail;
- A summary of the nominee's career, which can include a résumé, a curriculum vitae, lists of publications and patents, presentations at professional meetings, and other relevant information.

Nominations must be received by **March 15, 2014** and a decision will be made by the end of March, 2014. Please submit them to ACS Columbus Section, Attn: CS AWARD, PO Box 82181, Columbus, OH 43204. The award will be given at a Columbus Section meeting, at which the recipient will be expected to deliver a lecture.

Additional information about the award, including a roster of past recipients, can be found at <http://columbus.sites.acs.org/colssectionawardmore.htm>.

WELCOME NEW MEMBERS!

By DAVID SPETH, MEMBERSHIP CHAIR

Please join us in welcoming the following members who have joined the Section recently: The Columbus Section cordially invites new members to our monthly meetings. The Section will pay for new members' meals the first time they attend a meeting.

NICHOLAS BASHIAN
PURAN DE
STEPHANIE DOLL
DANIEL FIREHAMMER

TAYLOR GILL
SHELLEY GLEASON
JEFFREY LINDEMUTH
FRED MCGEE
KENTA SHIMIZU

JEFFREY SLATER
MAYA WEI-HAAS
ZACHARY WEINRICH
YUBO YANG



TAPPING INTO WATER: ONLINE WATER RESOURCE TOOLS IN YOUR STATE

SUBMITTED BY TOM WEKS, SILVER CIRCLE CHAIR

Is the river near you flooding? Is the water temperature of your favorite fishing stream right for a good catch? Are groundwater levels in your county going up or down?

A new U.S. Geological Survey [fact sheet](#) provides one-stop information on USGS sources of stream, groundwater and water-quality data for locations across the U.S. Managers and the public rely upon such tools for information related to stream health, recreation and the protection of life and property, including during floods and drought. This new publication can help citizens quickly navigate the extensive sources of USGS water data that are available online.

"The USGS offers much more than topographic maps, earthquake and volcano information," said Kimberly Shaffer, Outreach Coordinator for the [USGS Ohio Water Science Center](#). "Our local and national water data are available in a variety of formats and are free to the public every day—even during natural hazards."

In cooperation with local, state and federal partners, the USGS operates about 7,400 streamgages nationwide, and provides [online access](#) to water-resources data collected at over 1.5 million sites in the U.S. and other selected areas.

Critical USGS online water-resources tools include:

- [WaterQualityWatch](#) provides near-real-time water-quality data, such as temperature and pH, and dissolved oxygen readings from over 1,700 surface-water sites in the U.S.;
- [WaterNow](#), which sends on-demand water data such as gage height and streamflow directly to your mobile phone or email;
- flood and drought information via [WaterWatch](#);

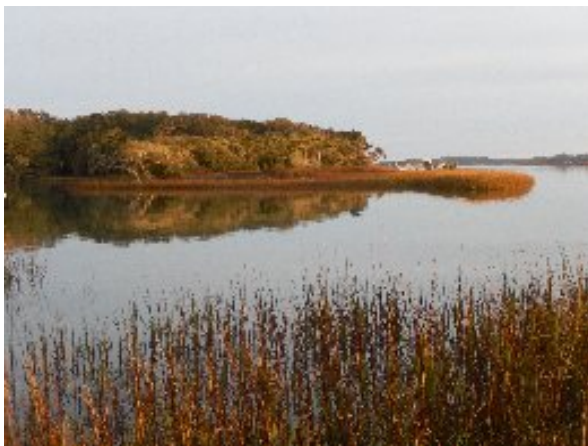
- and [Groundwater Watch](#), for updates on groundwater levels and statistical characteristics of groundwater levels at wells in the network.

For more information on USGS water research, please visit the USGS Water Resources [website](#).

USGS provides science for a changing world. Visit [USGS.gov](#), and follow us on Twitter [@USGS](#) and our other [social media channels](#). Subscribe to our news releases via [e-mail](#), [RSS](#) or [Twitter](#).

Editor's Note: Tom Weeks submitted the previous article as a followup to the Silver Circle Group's recent tour of the local USGS laboratories. In another communication with Dave Speth, Tom included some photos from his plantation assignment this winter. The following excerpt is from Tom's note that accompanied the photos:

Weather here is cold by FL standards, but nothing like what you have. We did get frost several days ago, but today was about 60. A few pictures of our location are below. We have the plantation grounds to ourselves after 5 pm.



looking toward intercoastal waterway



view from our lawn



our plantation



looking toward Atlantic



NOBEL LAUREATE TO SPEAK AT OTTERBEIN UNIVERSITY
Submitted by Joan Essen

Science Lecture Series 2014, Otterbein University
Dr. Robert Grubbs, Professor of Chemistry, California Institute of Technology
Nobel Laureate in Chemistry

-General Lecture (Thursday, 2/20/14, 4 p.m., Riley Auditorium in Battelle Fine Arts Center):
Green Chemistry: Lessons from Catalysis

-Technical Lecture (Friday, 2/21/14, 11:45 a.m., Roush 114):
Design and Applications of Selective Olefin Metathesis Catalysts

COLUMBUS SECTION ACS CALENDAR OF EVENTS

Year	Month	Date	Day	Location	Comments
2014	February	6	Thu		Deadline for reservations for February Section meeting
2014	February	11	Tue	Longaberger Alumni House, OSU	February Section meeting-- <i>Love Potion # 9: The Chemistry of Scent & Fragrance</i> . See details elsewhere in this issue of <i>The Chemical Record</i> .
2014	March	2 – 6	Sun – Thu	Chicago	Pittcon Conference and Expo 2014
2014	March	16 – 20	Sun – Thu	Dallas	247 th ACS National Meeting and Exposition
2014	April	22	Tue	Here, There, Everywhere	Chemists Celebrate Earth Day. Stay tuned to <i>The Chemical Record</i> and the Section website for details.
2014	August	10 – 14	Sun – Thu	San Francisco	248 th ACS National Meeting and Exposition
2014	October	1 – 4	Wed – Sat	Pittsburgh	45 th ACS Central Regional Meeting
2014	October	19 – 25	Sun – Sat	Here, There, Everywhere	National Chemistry Week 2014 Theme: <i>The Sweet Side of Chemistry – Candy</i> . Showcasing the chemistry involved in candy and confections Stay tuned to <i>The Chemical Record</i> and the Section website for details.

ABOUT THE CHEMICAL RECORD

The Chemical Record, official newsletter of the Columbus Section of the American Chemical Society, Inc., is published monthly, February-May and September-December (eight issues per year.) Opinions expressed by editors or contributors do not necessarily represent the official position of the Columbus Section or of the editorial staff. We welcome your contributions to your *Chemical Record*. Please submit them via postal or electronic mail to **George Greene**, PO Box 360941, Columbus, Ohio 43236-0941, george.greene@abbott.com. Electronic mail contributions should be in MS Word file attachments (preferred) or plain-text messages. *Thank you very much!*

CHANGE OF ADDRESS

Changes in postal or e-mail address should be reported to the Membership Chair, **David Speth**, 614-688-5162, drspeth@sbcglobal.net. David will forward the change-of-address information to ACS Headquarters.

ADVERTISING RATES

Advertising rates for *The Chemical Record* are as follows (per single insertion): Full Page, \$250; Half page, \$150; Quarter Page, \$120; Eighth Page: \$60; Business Card, \$50. Discounts: 5% for four insertions or 10% for eight insertions during a calendar year. There is no charge for "help wanted" ads.



2014 CENTRAL REGIONAL ACS MEETING



2014 ACS Central
Regional Meeting



www.acscerm2014.org



THE 45TH CENTRAL REGIONAL MEETING

OCTOBER 1-4, 2014

DOUBLETREE BY HILTON
PITTSBURGH - GREEN TREE

PLENARY SPEAKERS

VICKI H. WYSOCKI, PH.D.
THE OHIO STATE UNIVERSITY



BRADLEY D. SMITH, PH.D.
UNIVERSITY OF NOTRE DAME



SARA E. SKRABALAK, PH.D.
INDIANA UNIVERSITY BLOOMINGTON



EXPOSITION AND TECHNICAL SYMPOSIA

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INORGANIC, ORGANIC, PHYSICAL, BIOCHEMICAL, POLYMER,
PROTEOMICS, AND CHEMICAL EDUCATION

SPECIAL EVENTS:

- VENDOR EXPOSITION
- PITTSBURGH AWARD
- DISTINGUISHED SERVICE AWARD
- HIGH SCHOOL TEACHING AWARDS
- FORMER CHAIRMAN DINNER
- WOMEN CHEMISTS COMMITTEE LUNCHEON
- YOUNGER CHEMISTS COMMITTEE LUNCHEON
- STUDENT AFFILIATES LUNCHEON
- SCI-MIX POSTER SESSION
- LEADERSHIP INSTITUTE
- CAREER WORKSHOP
- STUDENT AFFILIATE WORKSHOP
- TEACHER TRAINING WORKSHOP
- AND MORE ...

FOR MORE INFORMATION CONTACT:

FOR GENERAL:

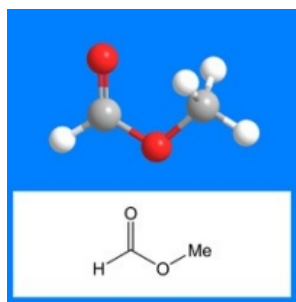
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MOLECULE OF THE MONTH: METHYL FORMATE
FROM THE ACS WEBSITE

Methyl formate, a clear, volatile liquid, is the simplest carboxylate ester. It can be made in the lab by the acid-catalyzed esterification of formic acid and methanol. Industrially, it is produced by the base-catalyzed reaction of methanol and carbon monoxide.

The industrial uses of methyl formate include the manufacture of other formic acid derivatives, as a blowing agent for foams, and as an agricultural fumigant. It was formerly used as a refrigerant as an alternative to sulfur dioxide even though it also poses a toxicity hazard.

Methyl formate has been used as a model ester to study the combustion mechanisms of much more complex biodiesel mixtures. Toward this end, E. A. Carter and co-workers at Princeton University recently performed calculations to predict the hydrogen abstraction kinetics of methyl formate. They found that the predicted rate constants differed significantly from those that were calculated in previous combustion kinetics models.



[More about this molecule](#) from CAS, the most authoritative and comprehensive source for chemical information.

SPRING, 2014 ACS NATIONAL MEETING

Join us for the Kavli Foundation Lecture Series and Plenary at the ACS Spring National Meeting



John A. Rogers



Emily A. Weiss



Jens K. Nørskov

Michael R.
Wasielewski

Héctor D. Abruña

CHEMISTRY AND MATERIALS FOR

ENERGY

DALLAS, TX March 16 - 20, 2014

KEYNOTE SPEAKERS & PLENARY

EXPLORE THE TOPICS