



THE DAYTON SECTION

Fostering scientific education and research, and promoting public understanding of science since 1930

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PATTERSON-CRANE AWARD

Vacant

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BULLETIN Hot Fun in the Summertime Edition 2015

Meetings and Events

- Sept. 8:** Patterson-Crane Award
Sept. 12: Eleventh Annual Picnic of the New Era!
Sept. 18: Past ACS President Bill Carroll to speak at WSU
Oct. TBD: Joint Fermentation Meeting with the Cincinnati Section, featuring dinner and wine tasting!

Section News and Other Stuff

- Call for Nominations — page 4
- The Dayton Section's newest ACS Fellow! — page 4
- Call for National Chemistry Week Volunteers — page 4
- Past Meeting — page 5
- Alzheimer's Avoidance Therapy — page 6
- AAT-2: Su Doku for Chemists — page 6
- Quotable Quotes — page 6

DATE MATERIAL - MEETING ANNOUNCEMENT - DO NOT DELAY

ADDRESS SERVICE REQUESTED

American Chemical Society
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UPCOMING MEETINGS

SEPTEMBER 8

PATTERSON-CRANE AWARD

Venue: Clintonville Women's Club, 3951 North High Street, Columbus

Social: 6:00 PM — 6:45 PM

Dinner: 6:45 PM — 7:45 PM

Award: 7:45 PM — 9:15 PM



The Dayton and Columbus Sections of the ACS are pleased to announce that the winner of the Patterson-Crane Award is Dr. Stephen R. Heller, Guest Researcher at NIST. Although nominations for the Patterson-Crane Award, given in recognition of excellence in chemical information science, are sought biennially, the last award was given in 2010. Dr. Heller's award address is entitled, "The Development of the IUPAC InChI Chemical Structure Standard."

Dr. Stephen Heller received his BS degree from the State University of New York at Stony Brook and his PhD in chemistry from Gerogetown University. He is a guest researcher at the National Institute of Standards and Technology working on the IUPAC International Chemical Identifier (InChI) project as Project Director for the not-for-profit InChI Trust. The objective of the IUPAC InChI Chemical Identifier Project is to establish a unique label as a non-proprietary identifier for chemical substances that could be used in printed and electronic data sources. This will enable easier linking of diverse data compilations. Since release of the first version in April 2005, it has been incorporated into more public and private databases than any other structural representation.

Make reservations at <http://columbus.sites.acs.org/meetingreservation.htm> by September 2nd.

SEPTEMBER 12

ELEVENTH ANNUAL SECTION PICNIC OF THE NEW ERA

Where: Community Park, Shelter #4, 691 E Dayton Yellow Springs Rd, Fairborn, OH
(See https://ci.fairborn.oh.us/Portals/0/pdfs/A3910c_Community_Park.pdf for directions and map.)

When: 11:00 AM – 3:00 PM, Rain (unless an incessant downpour) or Shine!

We'll continue our revival of an old tradition with a picnic at a convenient location. All Section Members, their families, and prospective Section Members, e.g., students, are invited. The Section will provide hamburgers, hot dogs, brats, veggie burgers, and soft drinks. Please bring a side dish or a dessert (oatmeal chip cookies would be great) to share.

Those of us with kids are encouraged to bring the typical sports paraphernalia — soccer balls, footballs, Frisbees, badminton sets, and softball equipment — while those with peculiar Ohio personalities will automatically haul out home-made corn hole sets, but feel free to bring your favorite sports gear (except firearms, bows & arrows, and lethal lawn darts from the 1970s). For those of you who are single and haven't figured out how to ditch your date from the night before, this event will do the trick!

For planning purposes, let us know if you'll attend and the number in your party; contact Wayne Cook at 259-3162 or wayne.cook@kodak.com. Let us know, too, if you'd like to take over grilling duties from Steve, who gets very testy if you put mustard on your burger or ketchup on your hot dog.

UPCOMING MEETINGS

SEPTEMBER 18

**JOINT MEETING WITH WRIGHT STATE UNIVERSITY FEATURING
BILL CARROLL, 2005 ACS PRESIDENT AND BOARD CHAIR, 2012-4:**

WHERE EVERYTHING COMES FROM: INDUSTRIAL CHEMISTRY 101

Where: 165 Brehm Lab, WSU Main Campus

When: 3:30 PM

Parking: A block of parking spots reserved in the Visitor Lot

Map: See <http://www.wright.edu/maps> for location of Brehm Lab, visitor parking, and directions.

Abstract: How does chemistry get from the oil well to the Organic text book? How do we manufacture literally trillions of pounds of chemicals each year? Why do we make more sulfuric acid than any other chemical? And more importantly, where do all these pounds go? This presentation explores the sources of chemicals and the major processes that transform them into products that make modern life possible. Special attention is paid to the 100 largest volume chemicals manufactured and the taxonomy, ecology and interdependence of chemicals, processes and industries. And by the way — it doesn't all come from the oil well or the organic text book.

JOINT MEETING WITH THE CINCINNATI SECTION

In October, the Dayton and Cincinnati Sections will hold a joint meeting at Valley Vineyards in Morrow Ohio, allowing members from our two sections to socialize over wine tasting, dinner, and a tour of this unique winery and brewery.

Valley Vineyards is located between Dayton and Cincinnati, in a region of glaciated soils especially beneficial for growing premium wine grapes. For more information, see <https://www.valleyvineyards.com/>.

The date and times will be finalized in the next few weeks, and will be made available via e-mail, on our website (<http://DaytonACS.org>), and on facebook, (<https://www.facebook.com/daytonacs>).

CALL FOR NOMINATIONS FOR 2015 SECTION ELECTIONS!

The vacancies we need to fill this year are Chair-Elect and Secretary. Starting in 2016, the Secretary serves a two-year term, whereas the Chair-Elect serves in that office in 2016, as Chair in 2017, and as Immediate Past Chair in 2018, although, recent Past Chairs have gone so far as faking their own deaths rather than attend a Board Meeting. Consider the following when deciding on which office is right for you.

Would you like to manage a group of a half-dozen or so chemists who all think they're smarter than you? Would you mind terribly if no one followed your instructions and you wound up doing all the work yourself? Can you manage to stay awake during board meetings while officers drone on and on about nothing? Do you have even a *faint* recollection of Robert's Rules? If so, you are a *perfect* candidate for Chair-Elect!

So, what are we looking for in a candidate for Secretary? First, can you even *spell* secretary? Second, in the 1988 movie *Working Girl*, do you identify with the Harrison Ford-character or the Melanie Griffith-character? Do you have even a *slight* resemblance to Melanie Griffith? If you're still reading this, you have the attention span to be Secretary!

Please contact Wayne Cook at 259-3162 or wayne.cook@kodak.com if you are interested in volunteering for either of these positions. Trust us; it'll be fun!

CONGRATULATIONS TO OUR NEWEST ACS FELLOW!

The Dayton Section offers its sincere congratulations to Dr. Rich Vaia on his recognition as a 2015 ACS Fellow.

For his contribution to the science and profession, Dr. Vaia was recognized for his contributions to polymer nanocomposites, organic-inorganic hybrids, and adaptive soft-matter and their impact on a wide range of applications, including transportation, energy storage, photonics, aerospace structures, and space access.

For his contribution to ACS, Dr. Vaia was recognized for his service on the Editorial Advisory Boards of *Chemistry of Materials*, *Macromolecules*, and *ACS Applied Materials & Interfaces*, as well as a symposium organizer, volume editor, committee member, and Member-at-large for the Division of Polymeric Materials: Science and Engineering.

NATIONAL CHEMISTRY WEEK — CALL FOR VOLUNTEERS

This year's theme is, **CHEMISTRY COLORS OUR WORLD!**

We'll celebrate NCW (October 18th — 24th) with an event at the Centerville Library on October 17th. We will also celebrate in a second event at the Boonshoft Museum of Discovery on October 24th and 25th. We need volunteers to help the Section with NCW programming. If you are interested, please contact Melinda Greer at (513) 936-7165 or greermd@ucmail.uc.edu.

PAST MEETING: PATTERSON HIGH SCHOOL CHEMISTRY AWARDS

Continuing a tradition that began in 1943, Dayton Section members and chemistry students convened at the University of Dayton on May 28th for the Patterson High School Chemistry Awards. The ten students who scored highest on a standard chemistry exam were invited to write essays on a chemistry topic of their choosing. The essays were ranked by a committee formed by the Dayton Section, with the top three awarded prizes of \$1000, \$500 and \$250 for 1st, 2nd, and 3rd place, respectively.

In his keynote address, *Solving Big Problems through Chemistry: from Energy Conversion to Medicine*, Prof. Shawn Swavey from the University of Dayton outlined his research group's approach, including some serendipity, to some very challenging problems.

This year's winners, their essays, their High Schools (and their teachers) are:

First Place: Paddy Fanning, *The Unification of All Chemistry*
Centerville High School (Bonnie Buddendeck)

Second Place: Brian Daniels, *The Discovery of Macromolecular Chemistry and Polymerization*
Beavercreek High School (Tejinder Rattan)

Third Place: Michael Li, *The Lowly Catalytic Converter*
Centerville High School (Bonnie Buddendeck)

The Section thanks the Patterson High School Chemistry Awards Committee, The Education Committee, the volunteers who read and ranked the essays, and, of course, the Patterson Family.



It's uncertain if Paddy Fanning dressed for success before or after learning that he won First Prize.



Brian Daniels evidently forgot the instruction not to block the banner when posing for photographs.



Michael Li felt nothing like a lowly catalytic converter as he took home Second Prize!



Shawn Swavey was dismayed either by the sudden departure of his audience when the pizza arrived or by the non-response to his plea that someone save him a slice.

Alzheimer's Avoidance Therapy* Unscramble the letters to reveal a chemical name or apparatus. Then, use the circled letters to solve the riddle. Answers next edition!

G N O T Y ○ □ ○ ○ □
 F L R S U U ○ □ □ ○ □ □
 E F I L M O R Y ○ □ ○ ○ ○ □ □ □

The chemistry major found the first semester of his junior year much more difficult than expected. At the start of the Spring semester, he sought some advice from the Department Chair. Upon seeing him, the Chair says, "Come on in, Carbon Tetrafluoride!" The junior asks, "Why did you call me that?" The Chair replies, "Well, last semester you passed one course with a C but, for the other four courses, you

○ ○ ○ ○ ○ ○ ○ ○ ○ !"

Answers for Last Edition

VINYL ETHENE GLYEROL

Detectives Bert and Ernie are outside the Element Bar investigating a crime. Ernie says, "What say we go inside, wet our whistles, and see if we can scare up some witnesses?" Bert replies, "I give no credence to anything any element says!" "Why not?" asks Ernie. Bert answers, "Everyone knows that elements make up EVERYTHING!"

AAT-2 – Su Doku for Chemists!

Using the following nine chemical elements:

Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu
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fill in the grid below so that each row, column, and 9-element subcell has only one occurrence of each element.

			Sc					Ti
	Mn	Fe		Ni				Cr
Cu	Sc	Co						
	Fe	Cu			Ti		Mn	
Co								V
	Cr		V			Sc	Ti	
						Ni	Cr	Cu
Sc				Co		Fe	V	
Ni					Fe			

Quotable Quotes for \$1000, Alex!

"If you think your teacher is tough, wait till you get a boss." – Bill Gates

"A good manager is a man who isn't worried about his own career but rather the careers of those who work for him." – H. S. M. Burns

"Kill my boss? Do I dare live out the American dream?" – Homer Simpson

"The key to being a good manager is keeping the people who hate you away from those who are still undecided." – Casey Stengel

"Um, I'm stuck on this song yesterday. I can't seem to get it out of my head. I don't know the name of that. "She's a heart breaker, love taker . . . Oh. Oh" . . . very catchy. You know what? I can't stay awake for that guy. What is this? *People?* Um, the most beautiful people *People*. Ally Selica, Nothing wrong with that, huh?" – George Steinbrenner

Solution for Last Edition

Ti	Cu	Mn	Co	Cr	Fe	Ni	V	Sc
Cr	Co	V	Mn	Ni	Sc	Fe	Cu	Ti
Ni	Sc	Fe	Ti	V	Cu	Co	Mn	Cr
V	Mn	Cr	Sc	Cu	Co	Ti	Fe	Ni
Sc	Ti	Cu	V	Fe	Ni	Mn	Cr	Co
Co	Fe	Ni	Cr	Mn	Ti	V	Sc	Cu
Cu	Ni	Sc	Fe	Ti	Mn	Cr	Co	V
Fe	Cr	Ti	Cu	Co	V	Sc	Ni	Mn
Mn	V	Co	Ni	Sc	Cr	Cu	Ti	Fe

*Surveys suggest that mental exercises, including word puzzles, may delay the progression of Alzheimer's Disease.