



THE DAYTON SECTION

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

WEB ADDRESS: <http://DaytonACS.org>

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BULLETIN

Endless Summer Edition 2013

Meetings and Events

Sept. 21: The Ninth Section Picnic of the New Era!

Section News and Other Stuff

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DATE MATERIAL - MEETING ANNOUNCEMENT - DO NOT DELAY

ADDRESS SERVICE REQUESTED

American Chemical Society
Dayton Section
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UPCOMING MEETING

SEPTEMBER 21

NINTH ANNUAL SECTION PICNIC OF THE NEW ERA

Where: Magee Park, 1820 Little Sugarcreek Road, located in the City of Bellbrook on Little Sugarcreek Road between State Route 725 and Possum Run Road (See http://www.bellbrooksugarcreekparks.org/parks/magee_park/ as well as directions and map below.)

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 the same venue as last year. 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 (especially if you bake; brownies with nuts but no frosting would be great) to share.

Those of us with kids are encouraged to bring the typical sports paraphernalia — soccer balls, footballs, Frisbees, and badminton 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). An in-person dating service will be provided for singles!

For planning purposes, let us know if you'll attend and the number in your party; contact Lori Balster at 785-2394, lori.balster.ctr@wpafb.af.mil. Let us know, too, if you'd like to take over grilling duties from Steve, who may be too tired to grill after the Air Force Marathon.

PAST MEETING: PATTERSON HIGH SCHOOL CHEMISTRY AWARDS

Continuing a tradition that began in 1943, Dayton Section members convened at DECA on the evening of June 14th for the culmination of the Patterson High School Chemistry Awards. The ten students who scored highest on a standard chemistry exam were invited to write essays on what chemistry means to them. 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.

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

First Place:

Manish Paranj: *Redox to the Rescue!* The Miami Valley School (Bryan Czarnota)

Second Place:

Amelia McBee: *Stay Sharp*, Centerville High School (Julie Summers)

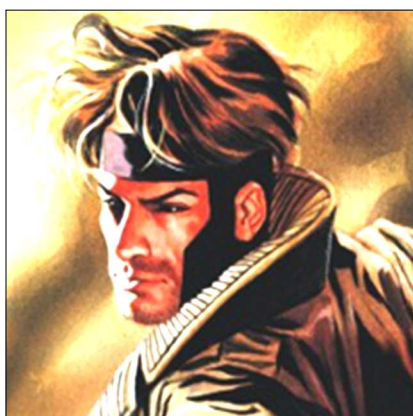
Third Place:

Joseph Zoller: *My Life in ADHD*, Bellbrook High School (Cindy Hasler)

In his keynote address, Dr. Lonnie Dorgan, Chair of Chemistry at Sinclair Community College, imparted his personal thoughts on STEM, including job opportunities for future graduates, and the roles that places like DECA and Sinclair play in making sure that Dayton has the STEM skills needed to support our Aerospace and manufacturing industries.

The Section is grateful to the folks at DECA for their hospitality. We owe a debt of thanks to Bonnie Budden-deck and Cindy Hasler, Co-Chairs of the Patterson High School Chemistry Awards Committee; Paul Fleitz, Chair of the Education Committee; the volunteers who read and ranked the essays; other volunteers who brought the pizza and soft drinks; and, of course, the Patterson Family for their generosity in sponsoring this award.

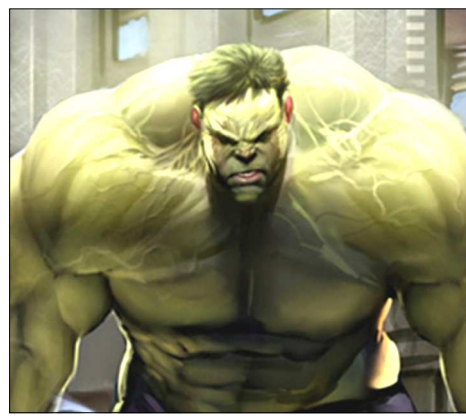
Continuing a tradition that dates back to *last year*, the Section's Program Committee failed to provide a photographer for this event, so we again had to rely on artists' renderings of the events (see below).



First-place winner Manish Paranj seemed ready for additional rescues.



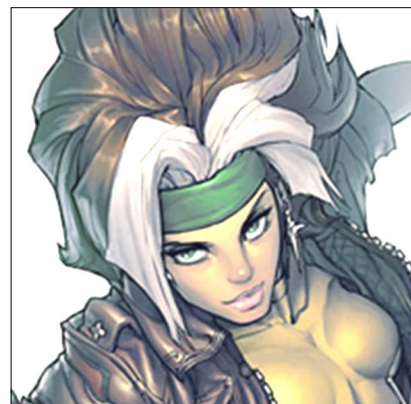
Sudden gusts of wind inexplicably accompanied second-place winner Amelia McBee wherever she went.



Third-place winner seemed a tad peeved at not taking home 1st prize.



Keynote speaker Lonnie Dorgan, right, takes issue with Paul Fleitz (left) for his introductory remarks.



The stress of being Chair has made Lori Balster go a little grey but it looks *great* on her!

CALL FOR NOMINATIONS FOR 2013 SECTION ELECTIONS!

The vacancies we need to fill this year are: Chair-Elect, Councilor, Alternate Councilor, and Treasurer. Incredibly, the Section's Nominating Committee has identified one candidate for each office! Starting in 2014, the Secretary serves a two-year term, and the Councilor and Alternate Councilor serve three-year terms. The Chair-Elect serves in that office in 2014, as Chair in 2015, and as Immediate Past Chair in 2014.

If you're the confrontational type and you like to defy the Powers that Be, then you might want to challenge the Chosen Ones; we can have an actual contested election – something that hasn't happened in decades!

On the other hand, if you're the congenial type who likes to work behind the scenes and allow others to hog all the credit, we're also in dire need of volunteers for several Committee Chairs: National Chemistry Week; Patterson-Crane Award; Public Relations; Industrial Relations; and Government Relations.

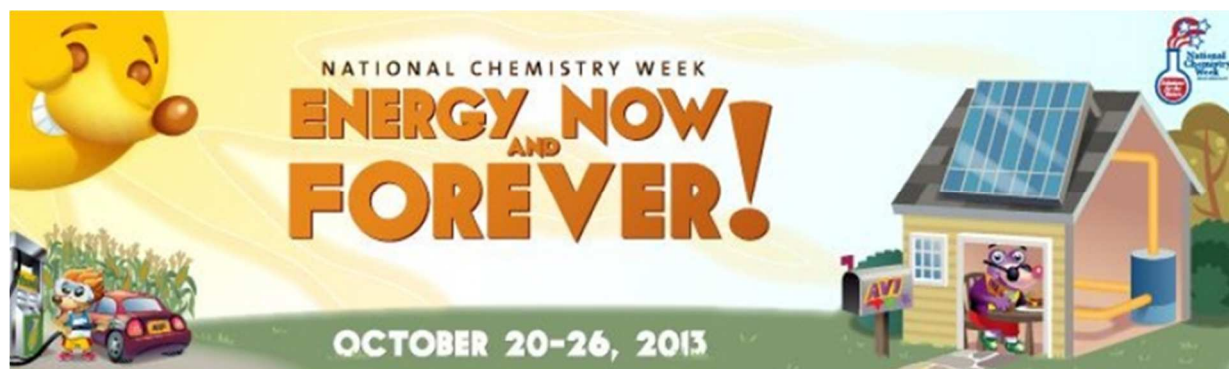
Given biennially, the Patterson-Crane Award is given jointly by the Dayton and Columbus Sections for excellence in any aspect of chemical information. International in scope, the award includes cash in the amount of \$3000 plus all-expenses for travel to either Dayton or Columbus for an award address.

Public Relations Chair writes press releases for Section activities, and fosters member relations. Free training is available; new PR Chairs spend a weekend with other sections' PR chairs along with ACS staff.

Contact Steve Trohalaki (steven.trohalaki@mac.com) to learn about volunteering for any of these positions.

National Chemistry Week – Call for Volunteers

We'll celebrate NCW (Oct. 20-26) with an event at Centerville Library (Oct.27; 10 AM– 2 PM). We might also participate in a second event at the Boonshoft Museum of Discovery, as in past years. We need volunteers to help the Section with NCW programming. If you are interested, please contact Joy Haley at (937) 255-9896 or Joy.Haley@wpafb.af.mil.



SECTION OUTREACH TO RURAL AND URBAN SCHOOLS

Using funds obtained from a Local Section Innovative Project Grant in addition to our profit from our hosting the 2010 Central Regional ACS Meeting, the Dayton Section has actively engaged middle and high school students from rural and urban areas in chemistry and chemistry related activities. Volunteers from the University of Dayton Research Institute (UDRI), the Departments of Chemistry at the University of Dayton (UD) and Central State University (CSU), and their respective Chemistry Clubs, participated in three separate outreach events.

At Warner Middle School (Xenia Community School) and Thurgood Marshall High School (Dayton Public School), activities included a discussion about the periodic table and how the elements combine to form compounds used in everyday life. The students also used IYC Activity Kits provided by the American Chemical Society at no cost, for a precipitation experiment. Based on that experiment, the students wrote essays that included their original hypothesis, observations, conclusions, as well as how this activity piqued their interest in science. Students with the top two essays from each of the seven classes were awarded Texas Instruments TI-36 scientific calculators and offered the opportunity to attend a two-week NSF-funded science camp hosted by CSU.

Outreach efforts at DECA involved demonstrating the oscillatory nature of the Briggs-Rauscher reaction, the effect of concentration gradients (the Tomato Juice Rainbow) and the behavior of materials at extremely low temperatures using liquid nitrogen. Students participated in the liquid nitrogen demonstration by freezing and shattering flowers and bananas, shrinking balloons, as well as watching a ping-pong ball whirl around the floor after puncturing it and filling it with liquid nitrogen. The event ended with a discussion about college courses, specifically chemistry and other natural science classes.

To date, approximately 100 young minds have been positively impacted by these outreach efforts. The Dayton Section plans to continue these activities and seeks to provide resources to improve and augment Dayton Public School's current chemistry programs. We are actively seeking donations from local industry to support our outreach efforts.



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

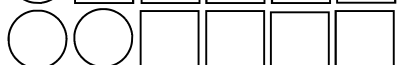
CEGLOSU



DIIMNU



HIMNTY



The photon needs a break. He's sick of people expecting him to act like a wave; he's sick of people expecting to act like a particle. So, he heads out of town for a few days and checks himself into a nice hotel. The bellhop asks, "Can I help you with your bags?" The photon replies, "I don't have any; I'm traveling



Answers for Last Edition

SODIUM CUBANE TALC

The bartender at the Element Bar notices an attractive new alloy sitting all alone. He saunters over to her and asks, "So, tell me, what are you made of?" The alloy says, "Copper and tellurium, not that it's any of your business." The bartender smiles and replies, "So, that's why you're "SO CuTe."

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.

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

Quotable Quotes for \$1000, Alex!

"Let's face it, a nice creamy chocolate cake does a lot for a lot of people; it does for me."

Audrey Hepburn

"Let's make a law that gay people can have birthdays, but straight people get more cake — you know, to send the right message to kids."

Bill Maher

"The most dangerous food is wedding cake."

James Thurber

"Who doesn't serve cake after a meal? We're sitting there like *idiots* drinking coffee! Would it kill them to put out a pound cake?"

Estelle Costanza

Solution for Last Edition

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

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