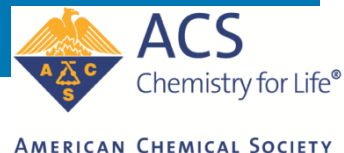
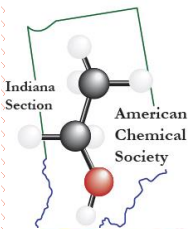


The Accelerator

INDIANA SECTION OF THE AMERICAN CHEMICAL SOCIETY



Q3 2019 (OCTOBER)



OPEN HOUSE for MEMBERS & Prospective Members

Thursday, October 17, 2019

5:30 – 7:30 pm

The Center, 6320 Intech Way, Indianapolis, IN 46278

- **Learn** about your local section
 - Activities, impact, involvement
- **Network** with other ACS members
- **Eat and drink**
 - Heavy hors d'oeuvres
 - Beer, soft drinks, water
- **Free** ACS t-shirt to all members that attend
- Event cost is \$5



Don't forget to register for our first open house if you are a member.

Please register by **Tuesday, October 15** so that we have a headcount for food and drinks!

<https://www.eventbrite.com/e/acs-indiana-section-open-meeting-tickets-72182528887>

If you know someone who is interested in joining, this is a great opportunity for you to receive a periodic table blanket!

member-get-a-member

Invite a friend or colleague to become an ACS member and receive a Periodic Table of the Elements blanket!



Chair's Corner

Wow! Time flies when you are having fun! I can't believe that the year is winding down and that we are in the last quarter. Fun is definitely the correct word for the what was had at our annual baseball night at Victory Field. It was one for the record books. We had almost 80 people join us, many of whom were students who were participating in summer research programs at one of the local universities.

We rolled into fall with the Chemistry and Archaeology event at Butler University. Please read all about this fantastic lecture by Dr. Karen Steelman in this issue of the Accelerator. We appreciate her taking the time to visit and share her work. I'd also like to recognize and salute the folks associated with Ignite Your SuperPower and Celebrate Science Indiana events.

This quarter, we have our annual election for the local section executive board officer roles. Please vote and have your voice be heard. Other activities that are in the planning stages include the Chemistry of Cheese, Volunteer appreciation night, and the National Chemistry Week Celebration at the Children's Museum.

Finally, I'd like to personally invite all of you to our general meeting next Thursday, October 17 at 5:30pm in Indianapolis. More details are in the ad above. We hope you can join us to learn about your local section. Most of the evening will be about making connections and sharing information, but there will be plenty of food, drinks and free t-shirts for members. Hope to see you there!

Thank you.
Tamiko

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Stay Tuned for these Events!

Chemistry of Cheese *October 24th 6-9 PM* at Big Red Liquors Corporate Offices; 5445 South East Street, Indianapolis, IN 46227

National Chemistry Day *Saturday, November 2nd* from 10 AM to 3 PM at the Indianapolis Children's Museum. Tickets can be purchased <https://www.childrensmuseum.org/visit/buy-ticket> For more information, contact customerservice@childrensmuseum.org or call 317-334-4000.

MUAAC 2019 *November 7-9th*. For more information, contact fdiess@iupui.edu



MUACC 2019 **Nov. 7-9th 2019**
Indianapolis, IN

 **IUPUI**

SAVE THE DATE!

The **Midwestern Universities Analytical Chemistry Conference** is returning to Indianapolis this year for its 68th meeting. IUPUI Department of Chemistry & Chemical Biology will host chemists from academia and industry November 7 to 9th 2019. *For more information contact Frédérique Deiss (fdeiss@iupui.edu)*

Chemistry and Archeology

By Anne Wilson and Julie Austin

On September 6th, the local section ACS along with Butler University's Departments of Chemistry and Biochemistry and History and Anthropology hosted an evening lecture given by Dr. Karen Steelman of the Shumla Archeological Research and Education Center.



The topic of the Chemistry and Archaeology event was the use of science to explore the rock paintings of the people of the Lower Pecos region of Texas. Dr. Steelman explained how her chemical analyses were used to catalog, contextualize, date, and gather information to best preserve the rock paintings on the canyon walls along the Lower Pecos River.

More information on this subject can be found at www.shumla.org.

A total of 40 people attended from the ACS as well as faculty, staff and students from the colleges of music, chemistry, art, history and anthropology. In a survey taken after the event, most attendees felt that they had learned something new, saw how the topic applied to the field of chemistry, and learned how scientists study cultural artifacts.

With the positive reviews of this event as well as the positive feedback from the other multidisciplinary events such as Music and Chemistry and our events at the IMA, look for additional events in the future!



Ignite Your Superpower: Empowering Future STEM Wonder Women

By Selene Hernandez Buquer and Maria Alvim-Gaston

The 3rd Annual Ignite Your Superpower! (IYS) STEM day, hosted by Women & Hi Tech, for middle school girls took place at the IUPUI campus on August 22, 2019. The STEM oriented day brought in around 700 young middle school girls from central Indiana schools to participate in fun, hands-on demonstrations and presentations from a variety of STEM fields. Over 30 academic, corporate and non-profit institutions participated, each exhibiting fun STEM activities to engage with the participants.



Maria Alvim-Gaston explaining to students what ethanol is

The Indiana local section of the American Chemical Society partnered with Eli Lilly & Company to host a booth. The theme was “Do you know what is in your hand sanitizer?” Students were welcomed into the lab, asked to wear the correct PPE and built their very own ethanol molecule. The activity showed them what the main ingredient of hand sanitizer looks like and what other common household items contain this molecule. The idea was to illustrate that chemistry is all around us, even when we cannot see it! It was heartwarming to hear the girls say: “Look at me! I’m a scientist!” and “Oh wow! I can be a scientist?”



The young ladies were quickly engaged and intrigued to learn more about the molecule. We discussed with them the individual components of ethanol and how these same components are utilized by chemists in companies like Eli Lilly to make life-changing medicines. Their faces would light up when told that their model was complete and that they were holding ethanol.

For many of the young participants, these demonstrations and activities were their first interactions with professionals in diverse STEM fields. Activities such as building a molecule can ignite the interest of young girls to pursue STEM related fields and become STEM wonder women.

Fun at Celebrate Science Indiana

This past weekend, over 60 exhibitors came together for the 9th annual Celebrate Science Indiana. Academia and industry were well represented along with several Indiana governmental agencies (<http://celebratescienceindiana.org/our-exhibitors-2/>). Booths included a wide array of learning opportunities and hands-on activities such as slime making and DNA extraction of strawberries. The ACS had two booths – one for ACS and once for AACT.

ACS Booth Highlights the Periodic Table and *Marvelous Metals*

It was 150 years ago that Demetri Mendeleev assembled the first periodic table. In honor of this, the United Nations declared 2019 as the International Year of the Periodic Table celebrating “one of the most significant advancements in science.”



To highlight the periodic table, the ACS purchased a high quality, laminated and illustrated poster which was displayed at the booth.

In addition, we had a play station where kids could build structures with interlocking tiles consisting of the elements called Connectagons. There were quite a few teachers and parents who stopped by to ask where they could purchase a set of these since they are an

interesting, hands-on way to introduce children to the elements.

In addition to this, the theme of National Chemistry Week is *Marvelous Metals*. To highlight this, we have samples of iron, copper, aluminum, zinc, coated lead, and brass as well as various salts of copper and iron. The kids liked looking at these samples and then cross comparing to the periodic table.



For hands on activities, we had two different experiments focusing on metals.



For the first activity, we had high level of iron cereals (>18 mg per serving). These consisted of both bran flakes and shredded wheat. For the bran flakes, we showed the high levels of iron in the cereal by floating a flake on water and “driving” the flake around with a neodymium magnet and for the shredded wheat, we ground it up and let them see that the cereal will actually stick to the



magnet! While letting the kids play, we talked to them about the function of iron does in the body, how iron benefits plants, where it is found and how it is used every day.

For our second experiment, we had kids clean oxidized pennies with vinegar and salt. We then had them take the clean penny over to another station to decorate a cardboard disk to make a penny spinner bringing chemistry together with art and physics!



Thank you to Chris Bodurow, Christine Skaggs and Brent Reschke as well as all the students who helped out at the ACS booth!

American Association of Chemistry Teachers Booth at CSI

Celebrating

52 Te Tellurium 127.60	89 Ac Actinium (227)	1 H Hydrogen 1.01	68 Er Erbium 167.26	16 S Sulfur 32.01
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At Celebrate Science Indiana!

K-12 teachers give our children so much: a boost of confidence when they really need it, extra help when struggling, a welcoming presence when everything else seems to be collapsing. Although we can't thank them enough, at Celebrate Science Indiana we take a moment to share our appreciation for these special educators in our lives by giving them an opportunity to win some fabulous prizes pictured below. Thanks to all our donors, both individuals and companies! Four lucky teachers won some fantastic seats to the November 17th Colt's game thanks to The Heritage Group. The ACS, Local Section, donated \$1,000 for four \$250 prizes – cash is always a big hit!

K-12 TEACHER RAFFLE PRIZES

Prize	Value	Donor
Eight tickets for November 17th	1304	The Heritage Group (4 prizes 2-tix ea)
Cash	1000	ACS, Indiana Section 4 prizes \$250 ea
Vase From Turkey	250	Sibel Selcuk
pH Meter	250	You Be The Chemist (YBTC)
Kemtec™ Chemistry Kit: Ionic Interaction	230	Fisher Scientific
Connor Prairie Gift Basket	150	Connor Prairie
CS Series portable Scale	109	Heritage Research Group
Gift Card	100	Lauth
Decorative Plate from Turkey	100	Sibel Selcuk
Family Membership	95	Indianapolis Museum of Art
Cole Palmer 033217-16 Flowmeter	92	Heritage Research Group
Tennis Lesson	75	Coach: Kurt Ehrhardt
Growlers & Coupons	50	Fountain Square Brewery
Gift Card for Target	50	Linda Osborn
FDR Four Day Ray Brewing Certificate	50	Beth Lorschach
Traceable Alarm Thermometer/Alarm Timer	44	Heritage Research Group
Plasma Ball	38	You Be The Chemist (YBTC)
Banana Republic Purse	30	Beth Lorschach
Build a Bear Gift Card	25	Erin Dotlich
Crew Car Wash Coupons	25	Beth Lorschach
Matt the Miller's Tavern Gift Certificate	25	Beth Lorschach
Granite Wine Bottle Stopper	25	Recycled Granite
Granite Necklace	25	Recycled Granite
Rapitot Soil Test Kit	24	Fisher Scientific
Nano Timer	21	Heritage Research Group
Tech Star Coffee Mug and Notepad	15	Linda Osborn
Job-Spark T-shirt	12	Linda Osborn
Jelly Bean Flask	5	Linda Osborn
Total Value of Prizes	\$4,219	



	90 Th Thorium 232.0381	7 N Nitrogen 14.00644	19 K Potassium 39.0983	
5 Y Yttrium 88.90585		8 O Oxygen 15.9994	92 U Uranium 238.0289	
52 Te Tellurium 127.60	89 Ac Actinium (227)	1 H Hydrogen 1.01	68 Er Erbium 167.26	16 S Sulfur 32.06





Recycled Granite Pet Rocks – a big hit with young and old. Julie Rizzo, founder of Recycled Granite, nominated as one of Northwest Indiana's Most Influential Women, donated materials for the activities at the Teacher Raffle Booth and a couple of teacher prizes. This included square pieces of recycled granite and lots of fun supplies and glue to allow the visitors to create their own pet rock! We talked about geology and the importance of recycling as they built their cute souvenirs. For more information about Recycled Granite, visit: <https://www.recycledgranite.com/>. A very special thanks to Lisa Spurlock Brouwer, Ann Kimble-Hill, Inga Van-Meter, Tom Xiao, and Alyssa Heffren's Mom for working at this booth!



Best in Show: Booth Highlights the Periodic Table of the Elements

At the Heritage Research Group (HRG) booth, two periodic tables were compiled from tiles prepared by the many engaged visitors. A common question was whether the images would be available online, so the results are shown below.

The booth was organized by HRG research analytical chemist, Ben Woodworth. Tiles were aligned in the design of the periodic table with a card of each element laid on top of the tile. Kids were able to pick one of the elements from a stack of other cards that contained information about the element. Then they took that tile to the next station of the booth where they colored the tile with markers and used isopropyl alcohol on a cotton swab to make designs. After the element was labeled on the tile, Ben took a photograph and inserted it into an electronically generated periodic table that was built one tile at a time that they could see on a screen right away! They got to take their tile home. Two complete Periodic Table of the Elements were assembled during this event, one from the morning visitors and one from the afternoon.



Did you participate in the HRG booth activity on Sunday? We had over 200 participants decorate tiles corresponding to different elements with beautiful results. Check out the compiled periodic tables to find your contribution!

Morning session:

Morning session enhanced

HRG Booth organized by Ben Woodworth

Periodic Table of The Elements

Tiles prepared at Celebrate Science Indiana 2019!

H																	He																
Li	Be															B	C	N	O	F	Ne												
Na	Mg															Al	Si	P	S	Cl	Ar												
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr																
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe																
Cs	Ba			Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn															
Fr	Ra			Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	Ts	Og															
																			La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
																			Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

HRG Booth organized by Ben Woodworth

Many other ACS members were involved in Celebrate Science Indiana at other booths, such as Greg Smith, shown below at his IMA booth explaining the crossroads of Science and Art!



Paul Morgan organizes a booth every year with his students at Butler University. A special thanks to Paul for bringing in a new sponsor! Larry Sernyk (left) had a long table of activities as part of his You Be the Chemist booth! And Keith Anliker, professor at IUPUI, was lab ready for the kids as shown below.



Your ACS local section is getting ready for:

265th ACS
National Meeting & Exposition
March 26-30, 2023 – Indianapolis, IN



INDIANAPOLIS 2023

Participate into the brainstorming and preparation

We will have our 3rd work session this Fall.

Stay tune for the exact date.

All who are interested are welcome!

If you have any questions or would like to be added to the mailing list for the preparation of this event, contact Frédérique Deiss: fdeiss@iupui.edu

Beyond Boundaries

INDIANA ACADEMIES SYMPOSIUM

April 3-4, 2020

Indiana Convention Center • Indianapolis

Bringing together Indiana's broad intellectual capital to share and promote cross-disciplinary research, discussion, and collaboration. **Questions?** Contact Symposium Chair **Dr. Surekha Rao** at skrao@iun.edu

Visit our website: go.iu.edu/2abh

our partners in

THINKING BEYOND BOUNDARIES

- American Society for Microbiology, Indiana Chapter
- Association of Euro Studies
- Greater Indiana Society for Neuroscience
- Indiana Academy of Nutrition and Dietetics
- Indiana Academy of Science
- Indiana Academy of Social Sciences
- Indiana Association of Historians
- Indiana Chapter of the American Society for Public Administration
- Indiana College English Association
- Indiana Foreign Language Teachers Association
- Indiana Local Section of the American Chemical Society
- Indiana Philosophical Association
- Indiana Political Science Association
- Indiana Public Health Association
- Indiana Section of the Mathematical Association of America
- Sigma Theta Tau International Honor Society for Nursing

In addition to the common program, ACS Indiana will propose special symposia and network events on Friday and host our annual Think Like a Molecule Poster session on Saturday. ACS Indiana contact: Frédérique Deiss, fdeiss@iupui.edu



200 YEARS

INDIANA UNIVERSITY
BICENTENNIAL

Upcoming ACS Meetings

March 22-26, 2020 Spring National Meeting and Expo in Philadelphia, PA

October 16-19, 2019 Midwest Regional in Wichita, KS

October 20-23, 2019 Southeast Regional in Savannah, GA

November 13-16, 2019 Southwest and Rocky Mountain Regional Meeting in El Paso, TX

Look for more regional meetings in 2020 in Columbus, OH; New York, NY; Bellingham, WA; and Rochester, NY



Check out our website
<http://www.acsindiana.org/acs>

2019 Executive Committee

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Past Chair	Lisa Buchholz
Chair-Elect	Debra Feakes
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Secretary	Christine Skaggs
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Alternate Councilors	Tom Xiao, Erin Dotlich, Tony Trullinger, Linda Osborn
At Large Member	Greg Smith, Anne Wilson, Maria Alvim-Gaston

2019 Committee Chairs

2023 NMLT Strategic Planning	Frederique Deiss
Assistant Newsletter	Andrea Moberly
Awards Chair	Katherine Stickney
Celebrate Science Indiana	Julie Austin
Chemistry + Humanities	Anne Wilson
Chemistry Olympiad	Jianping Huang
Education and Olympiad Chair	Robert Pribush – looking for successor in training
Election Chair	Matt Gardlik
Grants Chair	Ann Cutler
Think Like a Molecule Poster Session	Meghan McLeod
K-12 Outreach Chair	Erica Posthuma-Adams
Kids & Chemistry Chair	Brian Mathes
Membership Affairs Chair	Jordan Knotts

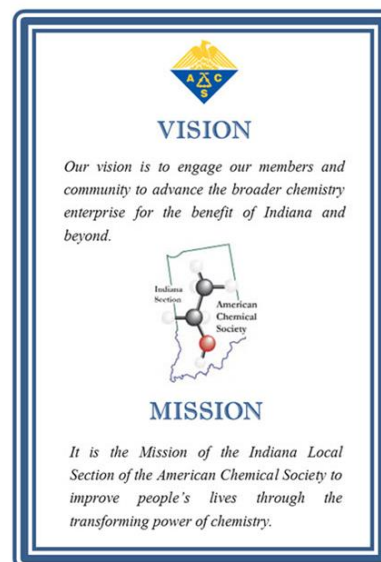
National Chemistry Week Co-Chair	Melissa Lee, Dan Klosowski
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Public Relations Chair	Norman Sesi
Science Day at Ball State	Ryan Jeske
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DR. FRANK J. WELCHER

LECTURESHIP



THE SURFACE OF WATER

ITS ROLE IN ENVIRONMENTALLY IMPORTANT PROCESSES

Geraldine Richmond, Ph.D.
Presidential Chair in Science and Professor of Chemistry

Thursday | Nov. 21 | 3 - 5 p.m.
Lecture and reception

IUPUI University Library, Lilly Auditorium

RSVP at science.iupui.edu/Welcher

Questions? Contact Erv Boschmann at erv@iupui.edu



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