



ACS Newsletter

The Newsletter of the Southern Arizona Section of
the American Chemical Society

Fall 2016



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Womens Chemistry Group:

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Letter from the Chair

Dear members of the Southern AZ Section

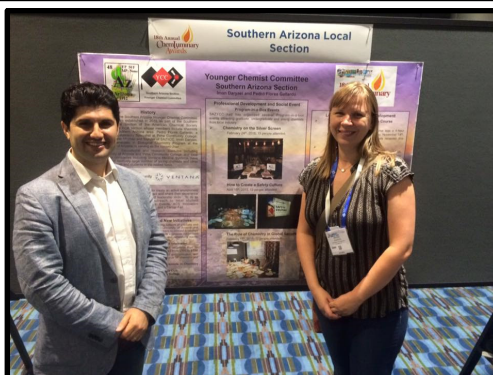
As 2016 comes to close we would like to use this newsletter to look back at the many activities conducted by the local section subgroups this year. While we did not sponsor as many speaker dinners as usual let me assure you that we are still very active. Please see articles about the Women Chemist Group activities, the community outreach events including Chemist Celebrate Earth Day and National Chemistry week. Additionally our student members have continued to do an exceptional job at community outreach via their annual chemistry demo programs and school visits.

These programs are only possible through the efforts of many volunteers. Not only do these dedicated individuals attend these events but also contribute many hours to the preparation for these programs. We all know time is our most precious resource and I want to thank these members and affiliate members for their generosity in sharing their time and energy to engage students and the public and promote the benefits of chemistry in our community.

This year has also been a year that your elected Local Section Officers have been planning for the future of our local section. This includes taking a critical look at our finances. We have been able to support travel for students to ACS National meetings, sponsor multiple awards, and support our community outreach programs due to the planning and efforts of the leaders who preceded us but without some strategic actions we will not be able to continue this level of sponsorship in the future. To that end we are exploring hosting a Regional Meeting in 2018. These meetings can be rewarding not only for the scientific exchange but also financially. They are however a lot of work. If you are interested in volunteering to assist with planning of this event please contact Steven Brown.

I look forward to continuing to serve the local section in 2017 and hope to see all of you at future events.

Pat Schumann 2016 Chair



Dr Brooke Beame Massani
and
Dr Iman Daryaei

presenting Younger Chemistry
Committee (YCC) Chemluminary
poster at the 252nd American
Chemical Society National
Meeting & Exposition in
Philadelphia, PA (August 2016)

Follow us on



Chemists Celebrate Earth Day 2016

The SAZACS celebrated Earth Day at the Tucson Earth Day Festival. The 2016 event was hosted in the partnership with Cyclovía, and was moved to a new location in Tucson's Himmel Park. The event was well staffed with the SAZACS members and their families, students from UofA SMACS, and ChemClub members from Tanque Verde HS. As usual, the challenge associated with this event is to offer many hands-on activities which can be safely performed outdoors, without the access to the running water. Probably the most popular activity was making bracelets and key-chains with UV sensitive beads. We also had a demonstration on how to make your own beads by rolling recycled paper on wooden dowels.



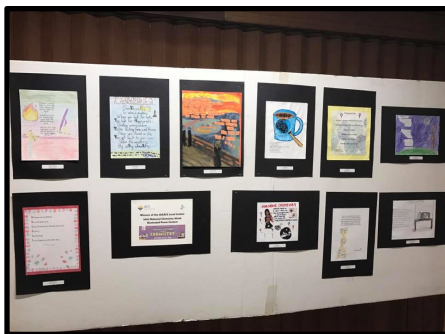
Brooke Massani, Pat Schumann and TVHS ChemClub members showing how to make bracelets from ultraviolet beads



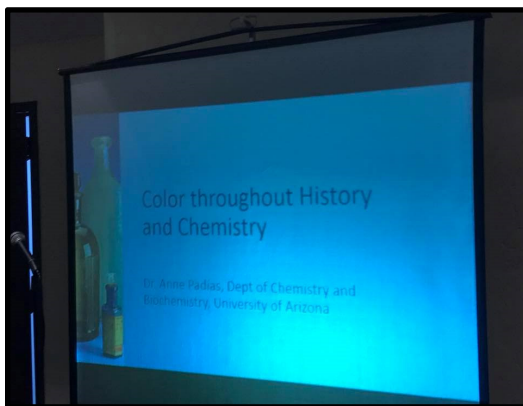
We also were showing visitors how detergents work on grease and lipstick stains



UofA SMACS members had a demonstration comparing soft and hard-water, which was very popular with our adult visitors



2016 SAZACS Holiday Reception and National Chemistry Week posters



Fall Dinner meeting with Dr. Anne Padias

Chemistry Olympiad 2016

This spring, students from Tucson-area schools participated in the National Chemistry Olympiad. The Chemistry Olympiad is an ACS competition for high school students to show off their chemistry knowledge. The competition is multi-tiered, beginning with the Local Section exam. Two best scoring students from each school qualify for the National Exam, consisting of a two-part exam combined with a lab practical.

The top 20 students in the nation get an all expenses paid trip to the Chemistry Olympiad Study Camp, which trains and prepares students for the International Chemistry Olympiad. ACS also publishes the list of 100 highest scoring students known as Honors list. The National team made of four students competes internationally. This year's event (48th International Chemistry Olympiad) will be held in Tbilisi, Georgia.

The 2016 Local Section Exam hosted by SAZACS Chemistry Olympiad Coordinator, Hillary Ward at Empire HS, attracted close to 50 students. Participating students represented three Tucson area high schools, as well as one home-schooled student. Six students qualified for the National Exam which was sponsored by the Central AZ local section under the guidance of Dr. Richard Bauer at the ASU.

With the increased interest in Chemistry Olympiad event, SAZACS is hoping to expand our participation in the event, and possibly host the both the Local Exam and the National Chemistry Olympiad next spring. This event will further the interest of students in chemistry and allow them to participate in the American Chemical Society.

Hillary Ward/Grazyna Zreda

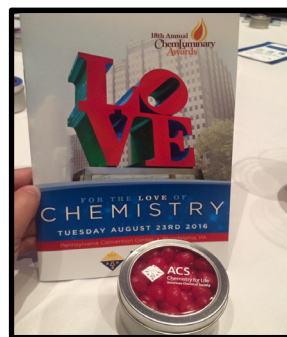
Younger Chemist Committee (YCC)

In the spring we hosted a program-in-a-box webinar. It was about "The Role of Chemistry in Global Security" that took place on February 17th at North Restaurant. This very interesting webinar covered a brief history and the influence of chemistry in the evolution of chemical and biological weapons. Applications of dispersion modeling and molecular biology in combination with atmospheric transport in detection of a bio-aerosol attack like Anthrax, how the science community and the various government organizations interact to determine if events are natural, accidental or deliberate and coordinate a response, and a new UV detection technology that is currently being developed to keep the public safe during airport travel were discussed during this webinar. 7 people including undergraduate and graduate students from the University of Arizona, chemist, and scientists attended this event.

I should proudly inform you that the ChemLuminary Planning Committee had selected YCC SAZ as a finalist for the Outstanding New Local Section Younger Chemists Committee ChemLuminary Award for its 2015 activities. Therefore YCC was invited to attend the ChemLuminary award ceremony that occurred at the 252nd ACS National Meeting in Philadelphia, PA on Tuesday, August 23, at the Pennsylvania Convention Center in Terrace Ballroom One. In addition, YCC was invited to present a poster of the 2015 activities that led to its selection as a finalist. Although YCC SAZ did not win the award, it was great to be among the list of finalists after only 1 year of activities.



Members enjoying appetizers during the "The Role of Chemistry in Global Security" webinar on February 17th at North Italia Restaurant.



ChemLuminary Award booklet cover page

Iman Daryaei
YCC SAZ Chair

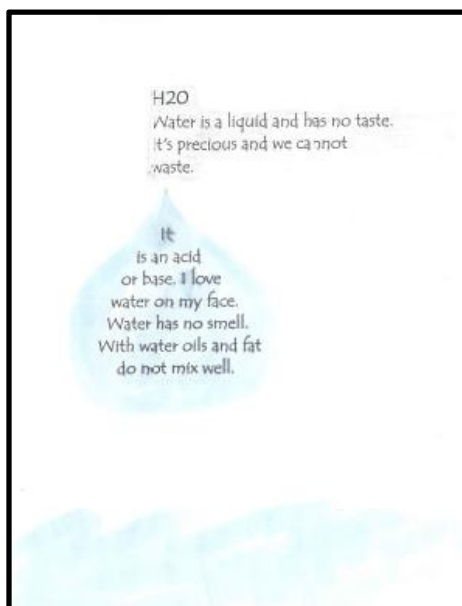
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2016 Chemists Celebrate Earth Day Illustrated Poem Contest

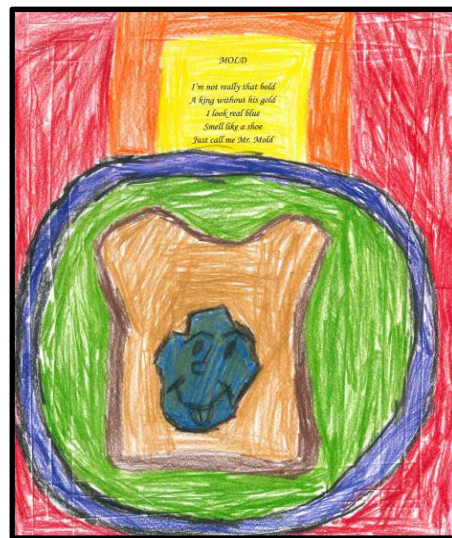
Each year ACS sponsors Illustrated Poem Contest for students in grades K-12. Students were invited to share their interpretation of this year's theme, "The Great Indoors-Your Home's Ecosystem", in the form of illustrated poems. Entries are judged based upon relevance to and incorporation of the CCED theme, word choice and imagery, colorful artwork, adherence to poem style, originality and creativity, and overall presentation.

SAZACS received 114 submissions from students in Tucson area in grades 3-6. Artwork was on display during our annual Awards Reception on April 28th, at Sabbar Shrine. Attending members were able to vote on the posters, and select Local Section winners. The first place in grade 3-5 category was awarded to Jake Avila from Soleng Tom Elementary School, for the poem about water. Jake's poem received many favorable comments for his knowledge of properties of water. First place winners received \$25.00 gift certificates from SAZACS. Both posters advanced to the National ACS Competition.



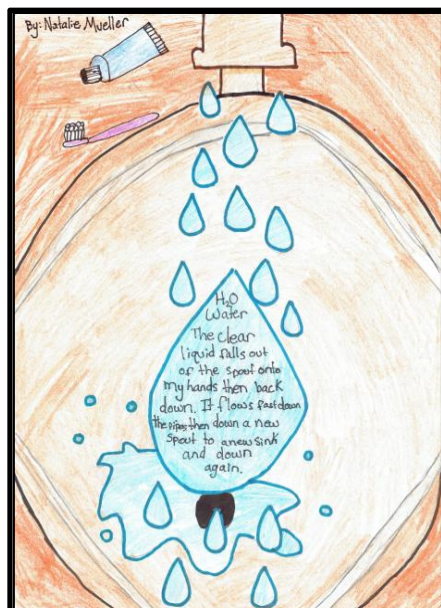
H₂O
Water is a liquid and has no taste.
It's precious and we cannot waste.
It is an acid or base.
I love water on my face.
Water has no smell
With water oils and fat do not mix well.

Jake Avila
1st place (grade 3-5)

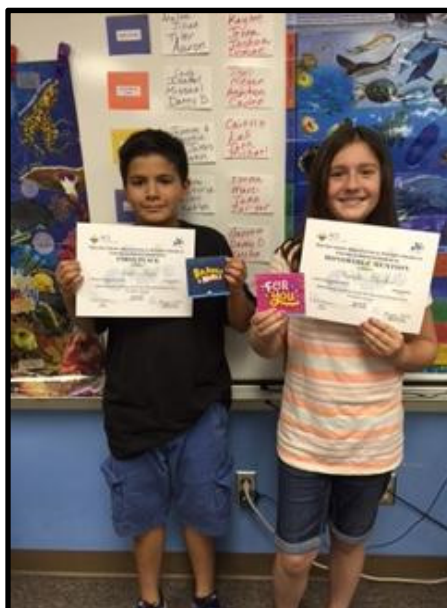


CJ Lopez
1st place

Agua Caliente (grade 6-8)



Natalie Mueller
Honorable Mention
Soleng Tom (grade 3-5)



Natalie Mueller (left) and Ariana
Fease (right). Both girls received
\$15.00 gift certificates.



Ariana Feasel
Honorable Mention
Agua Caliente (grade 6-8)

Women's Chemist Committee (WCC)

The Women's Chemistry Group events in 2016 featured a reprise of activities from past years, with upgrades to exhibits and procedures, and increased involvement with UA SMACS organization.

The WCG ended a busy spring season with a Friday evening Happy Hour at Casa Molina's on May 6 which included (as pictured left to right): Kathy Feuling; our energetic and hardworking ladies from the UA SMACS club, Nicole Oliver and Sona Avetian; Merita Clark, Anne Padias, Sharon Gardlund, Shirley Bemis, Silvia Kolchens and Ellen Caldwell.



Our spring calendar included four Friday morning "nibble, nosh and planning" breakfasts and a Mar 3 judging at the annual SARSEF Science Fair at TCC, where our crew (as pictured above) plus Judy Gilmartin and Elaine Mackenzie evaluated and selected our picks for "best of show" prizes (certificate, gift card, letter of commendation) for a young lady's project in each grade K-5.



April 13 featured a special lunch meeting at Mosaic Restaurant to plan for the upcoming show at the Tucson Botanical Garden; we presented four "hands-on, handouts provided" exhibits, "Red Dyes and the Cochineal Bug", "pH and Natural Indicators" and our perennial "Silly Putty", all revised and refreshed from past exhibits, plus a new addition, "Agave's Many Uses".



Senior members of the WCG setup and hosted on Saturday April 23, shadowed by three SMACS members who ran the exhibits on Sunday April 24. It turned out to be a good venue for outreach, with a steady stream of interested families visiting throughout our 9 AM-12:30 PM exhibiting time.



After a summer break, our First Friday Nosh and Nibble breakfast sessions continued Sep 9, Oct 8, and Nov 4, with the 2016 Arizona STEM Adventure Silly Putty exhibit top of the agenda. We held a glue diluting operation Oct 13th at Shirley Bemis' home, producing 16 gallons of 50% Elmer's, fortified by coffee cake and cherry pie; Silvia Kolchens held a Potluck and Demonstration Party for WCG and SMACS on Oct 22, including a hands-on tryout of our new (and quite successful) "in a bag" procedure.



Women's Chemist Committee (WCC) cont'd

The AZ STEM Adventure returned on Oct 28 to Pima CC NW campus, where over 1100 students participated; our five table stations, staffed by 2 volunteers each, helped 650 plus of the students make their own "Silly Putty in a bag" sample in 4 hours, smoothest operation yet!



We ended the Fall season with our annual December lunch at La Parilla Suiza, where we gathered gifts and gift cards for the Emerge! Center Against Domestic Abuse which were delivered immediately thereafter...

The WCG will convene again on Friday morning January 6th; we always enjoy welcoming new members and visitors!

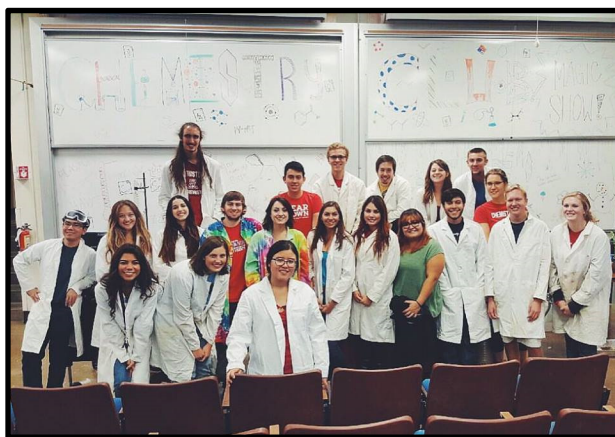
Sharon Gardlund, WCG chair

The University of Arizona Chemistry Club (SMACS)

The University of Arizona Chemistry Club (SMACS) has had quite a busy fall semester! We have been working hard to recruit new members as many of our seniors graduated last May, and our new members have been dedicated and engaged in helping the club's outreach efforts. We've kept up with our usual events, such as working with Tucson's Household Hazardous Waste program, performing at Spooktacular at Flandrau Science Center, assisting the Women's Chemistry Group with FunFest, and of course, holding our fall Magic Show held during National Chemistry Week at the University of Arizona.

Additionally, we've diversified our events a lot to extend our outreach into the community further. While we still perform our classic "magic" demo shows, which provide a fun, educational experience for grades K-12, we've also begun to give talks about STEM and higher education in middle and high school classrooms to encourage the next generation of young chemists and scientists to work hard, achieve their goals, and continue learning.

We have lots planned for next semester as well, including our Spring Magic Show! Be on the lookout for the date, as it's an event you won't want to miss.



Gabby Abou-Zeid Ambassador, U of A Student Affiliates Contact us: SMACSarizona@gmail.com



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