



Spring 2022 Newsletter

As we enter the third year of the SARS CoV2 pandemic, there appears to be some light at the end of the tunnel, and the local section is aiming for a return to normalcy in the activities we provide to our members in Southern Arizona. That is not meant to imply that we were inactive in the past year since the last newsletter, quite the contrary as you will see in the activity descriptions below. Before we get into that however, here is the list of the current officers of the local section:

Dr. Brian Zacher	Chair 2022	bzacher@email.arizona.edu
Ms. Kara Saunders	Chair elect 2022	kara.c.saunders@gmail.com
Mr. Steven L. Brown	Treasurer 2022-2023	slbrown3@cox.net
Ms. Wendy Hyatt	Secretary 2021-2022	we.hyatt@gmail.com
Dr. Charles Weidner	Councilor 2020-2022	chuck.weidner@gmail.com
Mr. Pedro Flores-Gallardo	Alt. Councilor 2020-2022	floresgape@gmail.com

Please feel free to contact your section officers with any questions or concerns you may have. There were many other SAZACS members involved as volunteers to help 'keep the wheels turning' in 2021:

Dr. Grazyna Zreda	Community outreach chair
Dr. Laura Stratton	Awards chair
Ms. Trina Shartsis	Womens Chemistry Group chair
Dr. Brooke Beam-Massani	Communications chair
Dr. Iman Daryaei	Chemistry Olympiad coordinator
Ms. Ashleigh Dahlstrom	Younger Chemist chair
Dr. John Jewett	
Dr. Terry Matsunaga	
Ms. Jessica Dodge	
Ms. Pat Schumann	
Dr. CJ Pommier	
Mr. Ben Zarin	
Ms. Abigail Shepard	
Dr. Robin Polt	
U of A Student Members (SMACS)	

Meet the 2022 Chair-elect



Ms. Kara Saunders

I am the Quality Supervisor at Vantage Speciality Chemicals, based in Tucson. Our site focuses on sustainable growth and processing of jojoba oil and its derivatives for use in personal care products, as it naturally has a very similar structure to sebum produced by the skin. Jojoba oil is a liquid wax ester and is a plant-based alternative to sperm whale oil, which saw a precipitous decline in use after the Endangered Species Act of 1972.

After a brief hiatus from ACS activities as a student member, I decided to take a more active role in the local section after participating as a plenary session panelist and a session chair at RMRM -- a thoughtful and engaging conference in which I was fortunate to participate. I am excited to learn as much as possible about our local section and will do my best to serve the interests of our network. My vision for the local section is to advance the ACS DEIR (diversity, equity, inclusion, respect) initiatives as it applies to: including members of chemistry-adjacent fields, diversity in education levels and age, and to continue to support and build the wonderful community of Southern Arizona.

In my free time, I am: a vivacious musician, an avid reader, a savage chess player, and a cyclist. Currently reading: Blood Meridian by Cormac McCarthy. Currently playing: Shostakovich String Quartet no. 2 in A major. Last ride: Tour de Mesa. Last chess match: beat the computer on an app.

SAZACS 2021 events

2021 National Chemistry Olympiad

Over 15 students from high schools located within the Southern and Central Arizona Local Section regions competed on March 27&28 to qualify for the US National Chemistry Olympiad Exam in April 2021. 7 students from 4 high schools successfully made it to the National exam, of which Yash Lal, a student at Peoria-Basis high school made it to the US National Honor List-for the first time ever for students from the State of Arizona!

Chemluminary Award

The Southern Arizona section was recognized with the ACS President's Award for Local Section Government Affairs from the Committee on Chemistry and Public Affairs for the

Science Advocacy workshop that was done in February of 2020. Attendees learned effective strategies for talking to policymakers, developed and practiced their personal advocacy pitch, and then shared policy recommendations with Arizona Senator Kyrsten Sinema. Thanks go out to Dr. CJ Pommier for helping organize this!

2021 Awards reception

The section held a virtual Awards reception on June 3 to recognize awardees and volunteers. This virtual event included the 2021 High School Teacher Award, the 2021 College Educator Award, the H. Wayne Adickes Member Service Award and recognition of 50/60/70 year ACS members of the LS, as well as recognition of significant STEM achievements in our section.

50 year Members

Prof. Larry David Pedersen

60 year Members

Dr. Phillip C Keller

Dr. Richard Allan Hudson

Dr. Roger L. Caldwell

High School Excellence in Teaching Award

Elaine MacKenzie, Vail Academy and High School

High School Excellence in Teaching, Honorable Mention

Blake Betteridge, Desert View High School

College Educator Excellence in Teaching Award

AnnMarie Condes, Pima Community College

H. Wayne Adickes Member Service Award

Dr. Brooke Beam-Massani

Presidential Award for Excellence in Science and Mathematics, 2021

Arizona state finalist

Jill Christman, Canyon del Oro High School

CBC Poster Fair 2021 Awards sponsored by SAZ ACS

Advanced Physical Sciences

Brent Lee, 1st place

Shayna Maddern, 2nd place

2021 Chemists Celebrate Earth Week Contest local winners

3-5th grade category: Lydia Perez (Innovation Academy)

6-8th grade category: Andrew Smith (Emily Gray Junior High)
9-12th grade category: Briana Hyland (Tanque Verde High School)

Chemistry Olympiad Local section participants

University High School	Teacher: Kevin Nieves Pichardo Nathan Kuo Sai Konkimalla
Basis – Peoria	Teacher: Dr. Merissa Remus Yash Lal Anavi Jain Ajaya Vasanth Adrija Rukmini
Tanque Verde High School	Teacher: Grazyna Zreda Carson DiMaria
Chandler Online Academy	Teacher: Cristi Sims Mihira Karnik Sohani Sandhu Blake Enwiller Kaitlyn Lai Nada Osman

In Appreciation for their volunteer service

Mindy Dodge, Christopher Cabello, Iman Daryaei, Brooke Beam-Massani, CJ Pommier, Pat Schumann, Laura Stratton, Grazyna Zreda, Steve Brown, Brian Zacher, Ben Zarin, Chuck Weidner, Trina Shartsis, Amy Graham, Pedro Flores-Gallardo, Sharon Garlund, Ellen Caldwell, Silvia Kolchens, Shirley Bemis, Gwen McCaffrey, Will Staaz, Kathy Feuling, Merita Clark, Neda Lane, Amy Graham, Wendy Hyatt, Ashleigh Dahlstrom, The Women Chemistry Group, Isabelle Harrison and Cristian Chavira, The University of AZ Chemistry Club (SMACS)

2021 Dinner Meeting



The section hosted a virtual brewery meeting in May, where Todd Button, co-owner of Button Brew House presented a talk on the ins and outs of the brewing process while members had a chance to sample of their wares compliments of the local section. This was well received and was very interactive with some of our members providing chemistry details of what the speaker talked about.

Elections for 2022

We used electronic voting again this year which increased participation by local section members. There were 65 votes received (~16% participation) and the results of the election were:

Brian Zacher	Chair 2022
Kara Saunders	Chair-elect 2022
Steve Brown	Treasurer 2022-2023

Welcome to our 2022 officers!

2021 National Chemistry Week Poem Contest

(Dr Grazyna Zreda, coordinator)

2021 National Chemistry Week - "Fast or Slow, Chemistry Makes it Go" contest was held virtually. Schools in Southern Arizona received email invitation to participate with a link to submit posters and poems, and the flyer to be used to advertise the event. The link to the submissions and information about the contest was also available on our website. I have met with multiple teachers in Tucson and Oro Valley, to deliver class sets copies of Celebrating Chemistry magazine (NCW issue) and advertising the event. I have also electronic included links to educational resources provided by ACS. The deadline to submit responses was Oct. 24, 2021, right after the RMRM2021. We received 94 posters, 43 from 3-5 grade category, and 51 from 9-12th grade category, the highest number of high school participants ever. The posters were graded using ACS-provided rubric. Based on the scoring, we selected two winners in each grade category and two honorable mentions. The winners were: Brett Lewis from Tanque Verde HS (\$25 gift card) and Abi Barrett from Innovation Academy in Oro Valley (\$25 gift card). The honorable mention: Roger Palmenberg from Tanque Verde HS (\$15 gift card) and Zoe Larsen from Innovation Academy (\$15). All 94 students who sent their artwork received printed certificates of participation mailed to the schools. The two winning posters were submitted to participate in the national ACS contest. I received lots of positive feedback about the contest and its impact on school children from the

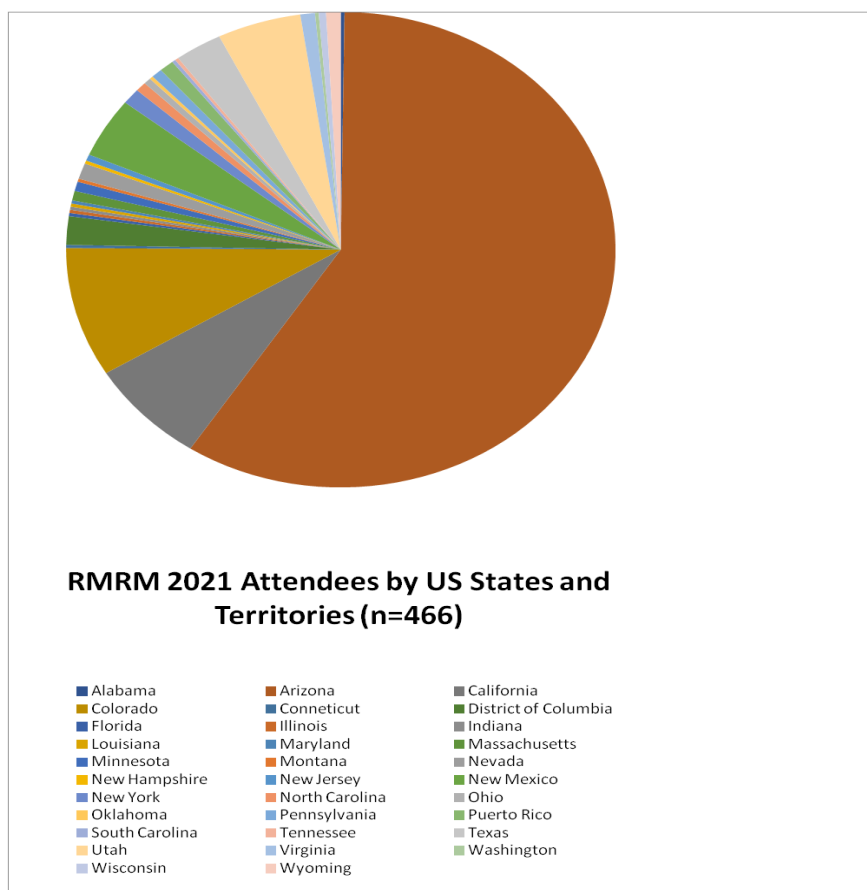
teacher at Innovation Academy in Oro Valley, Ms Niki Tilicki, who presented info about SAZACS poster contest during the district professional development. The art teacher, Ms Kala Phelps, at Tanque Verde HS was very enthusiastic about this project, due to its cross-curricular format, and intends to grow this project even further in the future.

2021 Rocky Mountain Regional Meeting (RMRM 2021)

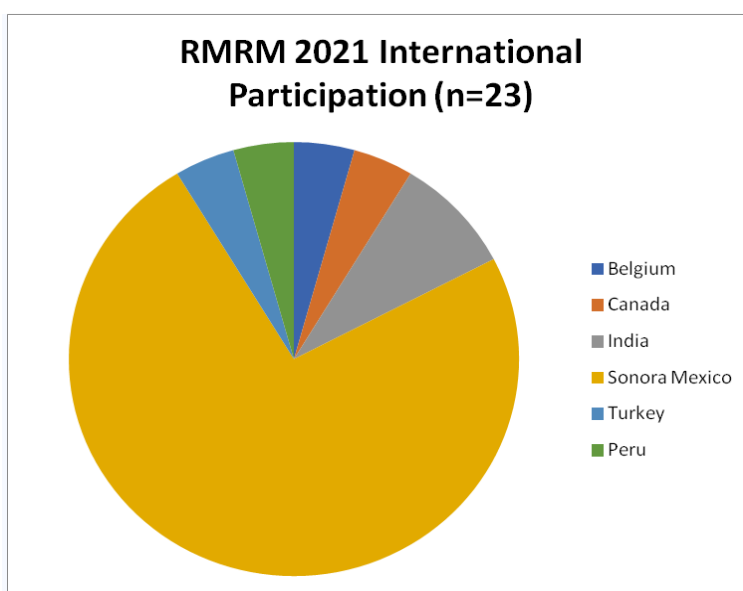
RMRM 2021 was held October 20 - 23, 2021. These dates were selected based on having the regional meeting closing day on Mole Day. This date did not conflict with any other big events in Tucson. October weather in Tucson, Arizona, is typically clear, dry, and beautiful with highs in the 80's and lows in the high 50's. This was an ideal time to be in Tucson.

With the meeting taking place during the active SARS CoV-2 pandemic, the actual format of the meeting was an open question, even up to the weeks prior to Oct 20, 2021. In the end, the meeting was held as an hybrid meeting with both in person and virtual components to it. Most presenters selected in person over virtual, with approximately 75% of registered attendees in person and the remainder as virtual. The website for RMRM 2021 was <https://www.rmr2021.com> The theme of "Diverse Chemistry in a Diverse Region" was chosen not only to represent the wide variety of chemistry in the region, but also the diverse population of chemists practicing in the region. The General and Program Chairs wove diversity and inclusion throughout the meeting. Examples from the Technical Program included Quimica, a Spanish language session with presenters and attendees from Puerto Rico, Sonora Mexico and elsewhere; Black Chemists Toward a Brighter Future, a full day session coordinated with NOBCChE ; an "Indigenous Ways of Knowing" session; and A Panel Discussion on

Diversity in the Chemical Sciences followed by a keynote address on Better Chemistry Through Diversity. The Local Organizing Committee (LOC) established a goal of funding student registrations to the meeting through donations from individuals and sponsors, managing to raise enough funds to support over 400 potential



student registrations. Attendance at RMRM 2021 represented a broad cross-section of the chemical research community with attendees from industry, academia, government, and education, with a variety of educational backgrounds including high school students, college students, graduate students, teachers, professors, technicians, researchers and clinicians. Diversity was represented by the geographic locations of participants, with attendees from many of the continental states, the Rocky Mountain and Western regions as well as international attendees from six international countries. The hybrid format proved to be yet another factor in the diversity and inclusion seen at RMRM 2021. The ACS final report showed 490 registrants for the meeting. In addition to attendees, RMRM 2021 proved attractive for sponsors and exhibitors for which the meeting represented their first return to a live exposition since early 2020.



RMRM 2021 provided a healthy background for educational and professional development activities as seen in both the quality and the registration numbers for the workshops and education related symposia. This was a highly successful event due to the dedication and efforts of the ACS Meetings and Exposition staff as well as the Local Organizing Committee and the meeting venue personnel. RMRM 2021 was a showcase event for the Southern Arizona section's National Chemistry Week activities. It focused on getting students to attend the meeting by underwriting the registration fees from donations by individuals and sponsors of the meeting. The newly adopted ACS value of Diversity, Equity, Inclusion and Respect (DEIR) was evident in nearly all parts of the programming, from technical talks to educational workshops. Below are some pictures from RMRM 2021.



Keynote Speaker Prof. Luis Echegoyan (L) and Dr. Laura Stratton (R)



General Chairs Dr. Laura Stratton and Dr. Charles Weidner



Program Chair Prof. John Jewett



Diversity Panelists



General Chairs Dr. Weidner and Dr. Stratton with Awards Chair Dr. Grazyna Zreda



P3 Awardee Dr. Iman Daryaei and ACS Board Chair Prof. Paul Jagodzinski



Awards Banquet



L to R- Prof. Amy Graham, Dr. Laura Stratton and Dr. Anne Padias

2021 SAZACS Holiday Reception

In early Dec, the section hosted an in-person Holiday Reception on the patio at Brother Johns. It was good to see friends and colleagues once again and sharing food, drink and holiday cheer with them!

2022 Chemists Celebrate Earth Day

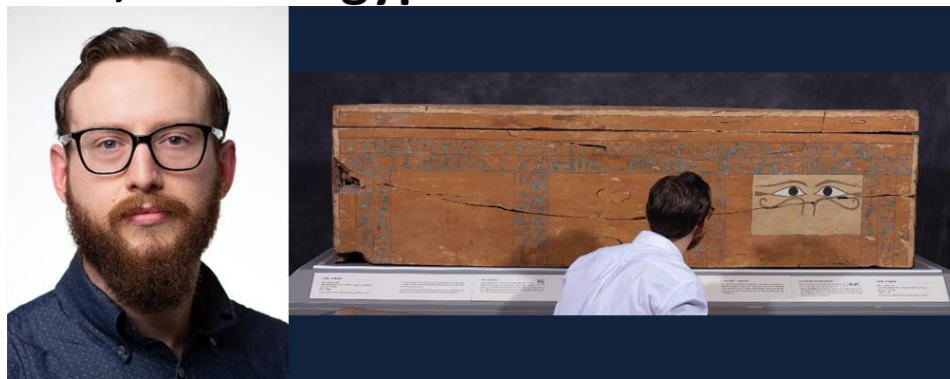
The section will be once again be participating in the Tucson Earth Day event at the Childrens Museum on April 23 from 9 AM - 1 PM. This will be an in-person event with hand-on activities for the kids as well as free admission to the Museum for all kids! Join us if you can for 'The Buzz About Bugs- Insect Chemistry'



Additional section dinner meetings are planned, so keep an eye out for emails about them.

The American Chemical Society — SAZACS Dinner Meeting

Conservation of the 2,100 BC Egyptian Coffin of Nakht



THE TECHNICAL STUDY AND PRESERVATION OF THE 2,100 BC EGYPTIAN COFFIN OF NAKHT presents significant advancements in the treatment of ancient Egyptian polychrome artifacts.

Ancient Egyptian artifacts present many unique analytical challenges. Identification, characterization, and quantification of original 5,000-year-old organic materials are particularly challenging, and sometimes not possible — even with modern analytical instruments.

We invite you to come explore the fascinating, behind-the-scenes intersection of art, archaeology, and chemistry! Find out how chemists have helped solve mysteries about Carpenter-Priests, hidden funerary magic, and secret spells.

Luke Addington, Wooden Artifacts Conservator

University of Arizona — Arizona State Museum Preservation Division

April 12, 2022, 6:30 PM

Zinburger - 6390 E Grant Rd, Tucson, AZ 85715

In collaboration with: [The American Research Center in Egypt, Arizona Chapter](#)

