



The Newsletter of the
Central Arizona Section of the
American Chemical Society
Web Page:
<http://membership.acs.org/C/CentralArizona/>



Cosmic Recycling Center: Matter Between the Stars

Hélène R. Dickel
ACS Tour Speaker
University of Illinois and University of New Mexico

Abstract

The space between the stars is not a perfect vacuum but contains a small amount of hydrogen plus various contaminating atoms and molecules. This material is collected into giant cloud complexes. Although typical densities are only a few particles per cubic centimeter, the volumes are so vast that the clouds often contain several thousand times the mass of the sun. Such regions are continually in violent activity - material in some spots is contracting to create brand new stars, other clouds are bursting apart at thousands of kilometers per second from the sites of exploding stars, and many areas are being heated and disturbed by the excitation of starlight and interstellar shock waves. We shall describe the results of recent research which is beginning to see order in this chaos: old stars throw off heavy elements which block energy transfer, enhancing the process of star formation. The new stars in turn excite their surroundings and eventually spew their material back into the interstellar medium to complete the cycle.

Speaker Biography

Dr. Hélène R. Dickel received her A.B. in mathematics from Mount Holyoke College in 1959 and her Ph.D. in astronomy from the University of Michigan in 1964. She is currently an Emerita Research Professor of Astronomy at the University of Illinois and an Adjunct Professor in the Physics and Astronomy Department of the University of New Mexico. She co-discovered the first formaldehyde maser in 1979 and is a pioneer in radio molecular spectroscopy using radio aperture synthesis techniques, including making some of the first images of molecular distributions with the Westerbork Synthesis Radio Telescope in the Netherlands, the Very Large Array of Radio Telescopes of the National Radio Astronomy Observatory, and the millimeter array of the Berkeley-Illinois-Maryland Association. She is now involved with the Long Wavelength Array project of the University of New Mexico. Prof. Dickel is the author of over 100 publications. Recent research includes radiative transfer modeling of star-forming regions.

Details

When: Thursday, April 17, 2008
5:15 p.m. Refreshments
6:00 p.m. Seminar (PS H-152)
7:15 p.m. Dinner (ASU University Club)

Where: Arizona State University
Physical Sciences H-152 (Seminar)
University Club
425 E. University Dr.
Tempe, AZ 85287
(480)965-0700
<http://www.asu.edu/uclub/>

Price: Seminar -- Free
Dinner -- Payable at the event
\$20.00 for members and guests
\$10.00 for students

Parking: If you join us for dinner, parking is available at the University Club. (You will receive a gate code after the dinner.) Parking is also available at the Fulton Center across the street. For further parking information see <http://asu.edu/maps>.

Reservations are needed by *Monday, April 14th* if you will be there for dinner. Reservations are **not** needed if you are coming only for the seminar. RSVP to Christine Pruis at (480) 965-1589 or Christine.Pruis@asu.edu (include "ACS Dinner" in the subject line). Please include the names of each attendee. Feel free to invite non-ACS members as this seminar will interest a diverse audience. Door prizes will also be given out at this event. These prizes will be drawn from the RSVP list. Therefore make sure to RSVP by Mon April 14th!

Once you make a dinner reservation, we are committed to paying for your meal, whether or not you pay us. Please don't be a no-show! You may be invoiced for the meal if you make a reservation and then don't show up.

Eyring Lecture

The Central Arizona Local Section will cosponsor with the Department of Chemistry and Biochemistry at ASU Eyring lectures April 3rd and 4th. (Apologies to those who receive this newsletter only via USPS.) Dr. Gérard Férey, from the Institute Lavoisier Versailles University, will present a general lecture on porous solids at 7:30 pm, April 3 in the Physical Sciences Building, room H-150. On April 4 he will give a technical talk at 3:00 pm in PS H-150. The Eyring lectures will be held in the Bateman Physical Sciences complex located on University Drive in Tempe. For information on parking and a map of ASU's campus, point your browser to the URL: <http://www.asu.edu/map/>.

Earth Day

The Central Arizona Section is celebrating Earth Day 2008 by sponsoring a local section Illustrated Haiku Contest for students, K-12. The theme for Earth Day this year is 'Streaming Chemistry.'

A Haiku is a three-line poem with five syllables in the 1st line, seven in the second, and five in the third line. They do not rhyme. Here is an example:

*Submerged rocks stare back
Through the glistening water
Streaming clean and clear*

Winners will be selected in each of the following four categories: K-2nd, 3rd-4th, 5th-8th, 9th-12th. The Central Arizona Section is offering a First Prize of \$50.00 and a Second Prize of \$25.00. The First Prize Winner from each grade category will be submitted to the National ACS Contest with First and Second level prizes of \$200.00 and \$100.00, respectively.

We sent out invitations to ~ 20 schools throughout the valley in February and have already received quite a few entries. Winners to be announced by April 9th. National winners will be announced by April 22, 2008.

For more information about Earth Day, contact Regina Miskewitz, Earth Day 2008 Coordinator, at 602-448-0684 or regina_miskewitz@yahoo.com

Chemistry Olympiad

The Central Arizona Section will once again be participating in the US National Chemistry Olympiad April 19. To qualify for the national exam, 42 students took a local section exam March 22. Encourage your local high school students and teachers to participate in this event next year. Teachers can contact Rich Bauer (602-496-0620) or Chris Prais (480-965-1589) with any questions.

Joint Northwest and Rocky Mountain Regional Meeting (NORM/RMRM)

The 2008 Northwest and Rocky Mountain regions will hold a joint meeting June 15-18 in Park City, Utah. A terrific line-up of symposia speakers is planned. You can see the list of symposia and invited speakers on the webpage www.chem.byu.edu/Site/2008normrmm. In addition, there will be programming for undergraduates.

Housing reservations for the meeting are also accessible on the webpage. The meeting is at the Park City Marriott and they have given a very reasonable \$95/night room rate. This rate is also available 3 days before and 3 days after the meeting. There is a limited number of rooms during that time. You will want to make your reservations now, if you intend to come early or stay longer than the meeting.

Abstract submission is open. Accommodation will be made for all who wish to present their research. There will be general sessions in the analytical, chemical education, inorganic, physical, and organic areas. In addition, five poster sessions will be spread throughout the meeting, beginning Sunday evening.

ACS sponsored workshops in career assistance and leadership training will be offered at no cost. There will be a POGIL workshop associated with the chemical education programming that is also free of charge. These events have limited seating, so register now if you want to take advantage of the offering.

We are still looking for meeting sponsors. If you want to contribute to the meeting, check out the "exhibitors" and "ad specs" tabs on the webpage.

At this joint meeting of the Northwest and Rocky Mountain Regions, several awards will be presented, but in order to do so we need nominations from you. For more details and nominating instructions see the meeting webpage. The awards are: Excellence in High School Teaching sponsored by the Division of Chemical Education (deadline: March 15), Excellence in College Teaching (deadline: March 15), Volunteer Service Award, Industrial Innovations Award, and the Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences

The deadline for early registration is May 15, so there will be sufficient time to get your registrations submitted.

Submitted by:
Steve Fleming, General Chair
NORM/RMRM

February Seminar

On February 20th, our local section got together at Glendale Community College for a fun and informative evening. Dr. Carolyn Fisher, a food scientist from McCormick & Company Inc., gave a nice interactive presentation about spices and herbs. A good time was had by all. Many thanks to Professor Joe Springer at GCC for arranging for the meeting room and appetizers. This February Seminar was exclusively advertised via e-mail. To ensure you do not miss out on future e-mail advertised events, please email CentralAZofACS@gmail.com to be placed on the local section mailing list.

March Dinner Extravaganza

On Wed March 5, 2008 thirty-one local section members gathered at Scottsdale Community College's Culinary Arts Dining Room for the Second Annual Dinner Extravaganza! The evening started with a catered social hour during which members were able to get to know one by participating in an optional ice-breaker game. The good food and fun continued in the dining room. The students at the Culinary institute did not disappoint as the five course meal was wonderful. Periodically during the meal \$15 door prizes from area businesses were awarded to ten lucky attendees. During the dinner hour, the winner of the ice-breaker game was determined through an intense Chemistry Challenge tie-breaker! Congratulation to ASU graduate student Brittany Austin who, with the help of her table mates, beat out 52 year ACS member Bert Chamberland for the grand prize of a \$300 voucher to the Marriot Buttes Resort in Tempe. As the runner-up, Bert walked away with a \$50 gift card to California Pizza Kitchen. Congratulations Brittany and Bert! We want to thank everyone who attended as the evening was not only very pleasant but also very helpful towards understanding the needs and desires of our local section. The March 5 Dinner Extravaganza was exclusively advertised via e-mail. To ensure you do not miss out on future e-mail advertised events, please email CentralAZofACS@gmail.com to be placed on the local section mailing list.

Local Section Contacts

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Future Local Section Communications

Did you know our Local Section spent a substantial portion of our budget last year on USPS mailings? Taking into account the cost of the mailing plus the time delay factor, the Board would like to transition to predominately electronic communications. Already this year two events, the February Seminar and March Dinner Extravaganza (see above for details), were advertised exclusively via e-mail. Both had a high turn-out and were well received by attendees. Unfortunately a portion of the local section membership was unaware of these events due to an un-registered or out-of-date email account. If you did NOT also receive this newsletter via e-mail then your email address is either out-of-date or your e-mail account is filtering ACS messages. If the former applies to you, please visit www.acs.org to update your address with the national list as well as email CentralAZofACS@gmail.com directly to be placed on the local section mailing list. If you believe that your e-mail account is filtering the messages, please include CentralAZofACS@gmail.com as a member of your "safe list." Thank you for your help in updating our roster and minimizing local section expenses.

Local Section Calendar of Upcoming Events

Event	Date	Location	Description
ASU Eyring Lecture: Dr. Gérard Férey French Academy of Sciences Institute Lavoisier Versailles University	Thursday, Apr. 3 7:30 p.m. Friday, Apr. 4 3:00 p.m.	ASU-Tempe H-150 ASU-Tempe H-150	Porous Solids: A New World The Breathing Effects in MOFs
235 th National ACS Meeting	April 6-10	New Orleans, LA	
Local Section Meeting ACS Tour Speaker: Dr. Hélène R. Dickel University of Illinois and University of New Mexico	Thursday, Apr. 17 6:00 PM (seminar) 7:15 Dinner	ASU-Tempe PS H-152 ASU University Club	Cosmic Recycling Center – Matter Between the Stars
Chemistry Olympiad National exam	Saturday, Apr. 19	ASU-Tempe	2008 National Chemistry Olympiad Competition
Joint NORM/RMRM	June 15-18	Park City, UT	
Western Regional Meeting	September 24-27	Las Vegas, NV	