

Central New Mexico Section
American Chemical Society
PO Box 4777
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American Chemical Society – Central New Mexico Local Section February 2009 Newsletter

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WCC meeting flyer

I. Local Section Meeting on Friday, February 27, 2009 in Albuquerque, NM

Dr. Attila Pavlath, former ACS President, will be making a presentation on "Alternate Energy Sources: From the Sun to the Depth of the Earth".

Abstract: This presentation gives a general description of the availability of various energy resources other than coal, gas, and oil. It summarizes the present technological background of possibilities from geothermal to fusion power. It is presented in a way understandable to a large degree even by non-technical audiences. The amount available in each area and the future outlook are discussed.

Schedule: 5:00 pm – 6:00 pm – Executive Committee meeting
6:00 pm – 6:30 pm – Social Period
6:30 pm – 7:30 pm – Dinner
7:30 pm – Presentation

Place: Flying Star Café, 723 Silver Ave SW and 8th in the heart of downtown Albuquerque, 87103. Direction information is available at www.flyingstarcafe.com

The dinner buffet will be Enchilada Stack, red or green, with/without chicken, a number of drink choices, and selection of cookies for desert. Other dinner choices, vegetarian, and other dietary needs can be accommodated – please advise when you RSVP. The dinner buffet price will be \$15 and \$7.50 for students. **Please RSVP by Tuesday, February 24 regarding your attendance to Chris Worley, (505) 667-2934 or cworley@lanl.gov.** Also let us know if you would only like to attend the presentation. We welcome member and non-member alike to attend this meeting. This meeting is designated as the bylaws required Annual Meeting of the Local Section.

Speaker Bio: Dr. Attila E. Pavlath received his education at the Technical University of Budapest in Hungary, where he became assistant professor. In 1956, he left Hungary first for Montreal, Canada (McGill University), then in 1958, he joined Stauffer Chemical Company in Richmond, California. Since 1967, he has been with the Western Regional Research Center of the U.S. Department of Agriculture, in Albany, California. He is leading a group involved in research on various agricultural chemical problems. Dr. Pavlath's scientific career includes work on fluorine chemistry (30+ years), glow discharge chemistry (10+ years), textile chemistry (10 years), energy and biomass research (10 years), the freshness in fruits and vegetables (10 years) and most recently on biodegradable wrapping films. He has published over 120 scientific papers on these subjects, three books and has presented numerous lectures in the U.S. and abroad. He also holds 25 patents. Dr. Pavlath is also well-known for his activities in the American Chemical Society during the past 35 years to make the organization more responsive to the professional needs of its members. He rose from his Section's Treasurer to the Presidency of the American Chemical Society.

II. Local Section Women's Chemist Committee

Our Local Section Women's Chemist Committee (WCC) will be meeting next on Saturday, March 14 at Santa Fe Community College. The speaker for that meeting will be Cheryl Rofer who will give a talk on Nuclear Policy. Please contact Mary Singleton <maryhas@juno.com> for more details and to RSVP.

III. ACS Award for Encouraging Women into Careers in the Chemical Sciences

We would like to recognize Mary Singleton as the 2009 recipient of the ACS Award for Encouraging Women into Careers in the Chemical Sciences that is sponsored by the Camille & Henry Dreyfus Foundation. Mary is retired from University of California Berkeley and Lawrence Livermore National Laboratory and now resides in Truchas with her husband Richard. This award will be presented to Mary at the Awards Ceremony during the spring 2009 national ACS meeting in Salt Lake City, UT.

IV. ACS Spring National Meeting in Salt Lake City, UT

The ACS spring 2009 national will be held in Salt Lake City, UT on March 22-26, 2009. The major theme topic of this national ACS meeting will be "Nanoscience: Challenges for the Future" so several divisions will be organizing symposia around that theme. Our Local Section is inviting proposals from ACS Student Affiliate chapters in our Local Section to assist with group transportation to that ACS national meeting. The spring national ACS meetings are an excellent opportunity for students to make oral and poster presentations on research to which they have contributed.

V. 2009 ACS Southwest Regional Meeting in El Paso

The ACS 2009 Southwest Regional meeting will be hold in El Paso, TX on November 4-7, 2009. It is being organized by the Rio Grande Local Section of the ACS which includes the University of Texas at El Paso and New Mexico State University at Las Cruces, NM. Since there is no scheduled ACS Rocky Mountain or Western Regional Meeting for 2009 the regional meeting in El Paso should have good participation from

members in all three of those regions. Further information on expected symposia is available at: swrm.info/index.htm

VI. New Mexico Tech Chemistry Department Fall Symposium

The 11th annual New Mexico Tech Chemistry Department Fall Symposium featured many interesting presentations and was well attended by students. We would like to recognize the following graduate students who received poster session awards during the associated poster session. These awards were funded by our Local Section given the significant amount of chemistry involved in these poster presentations:

Yanyan Guo	Manoj Kumar	Premchendar Nandhikonda
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VII. 20th Annual Rio Grande Symposium on Advanced Materials

We would like to recognize the following students who received poster session awards at the 20th Annual Rio Grande Symposium on Advanced Materials. These awards were funded by our Local Section given the significant amount of chemistry involved in these poster presentations:

Jacob Kesner	Sandia National Laboratories	Synthesis and characterization of chalcogenide nanomaterials
Sarah Hoppe	Sandia National Laboratories	Novel yttrium and holmium precursors for ceramic materials
Samantha Schmitt	University of New Mexico & Sandia National Laboratories	Three-dimensionally ordered magnetic nanocrystal / silica composite thin films synthesized via sol-gel self-assembly
Akinbayowa Falase	University of New Mexico	Characterization of complex 3D nano-patterned scaffolds for cell culture applications
Rosalba Rincon	University of New Mexico	Structure and electrochemical properties of electrocatalysts for NADH re-oxidation
Carter Hodges	Sandia National Laboratories	Controlled fabrication of nanopores using a direct focused ion beam approach with back face particle detection
Khawar Abbas	University of New Mexico	Ultra low cycle fatigue in axisymmetric free standing nanoscale gold film

VIII. Project SEED

Project SEED is a program to promote chemistry among underprivileged high school students. This is done by supporting these students with a stipend of \$2,500 for an 8 to 10 week period in the summer to do research at a university, industrial or government laboratory. The criteria are quite broad and the application is easy to fill out. Prospective projects are graded on four criteria:

Is it safe? Is it research? Is it appropriate for High School? Is it Chemistry?

Your institution can support the future of chemistry by giving economically disadvantaged high school students an opportunity to do hands-on research in your lab. Find out more about how you can open doors through Project SEED. Please contact Ron Clark <cycadp@zialink.com> for more information. We would be especially interested in projects involving work at Los Alamos National Laboratory! There is the potential for a high school intern to also be a Project SEED participant.

IX. John D. Clark Award Nominations

The Local Section periodically recognizes individuals who have made outstanding contributions to chemistry by a New Mexico chemist with the John D. Clark Award. We welcome nominations for this award from our membership. This award is named after John D. Clark who began a long term presence in New Mexico in 1914 as a faculty member at the University of New Mexico. At one point in his career he was frequently consulted by the U.S. Bureau of Revenue regarding bootleg liquor during Prohibition (1920- 1933). Dr. Clark went on to do many studies that benefited the mining industry and water quality in New Mexico.

X. Changes of Address

The distribution of our Local Section newsletter is dependent on accurate e-mail and US mail addresses being supplied to the ACS. Address changes can be submitted to ACS through the following means: service@acs.org, (800) 227-5558, or logging in to www.acs.org.

XI. Executive Committee Website

The Local Section Executive Committee is using a commercial social networking website to organize and plan activities. If you have an interest in helping out with a Local Section activity we would be happy to give others access to that password protected website.

XII. ACS Member Network

Trying to find another ACS member with a shared interest? The ACS Member Network allows you to find members who have elected to participate in the system. There is a search tool to find Member Network participants based on local section, division, geographic criteria, education, ACS involvement, etc. A recent addition to the Member Network is a discussion forum. The Member Network is available at: <http://www.acs.org/acsnetwork>

XIII. ACS National Meeting Programs in C&EN

With the upcoming Salt Lake City meeting, the national meeting technical programs will no longer appear in Chemical and Engineering News. Instead, the national meeting technical programs and associated information will only be made available online. This is an initiative in accordance with the Society's goals of environmental and financial sustainability, which also results in our ability to deliver the information earlier than ever before. By taking these steps, paper will be saved, other production expenses will be reduced, and we can avoid delays created by the required lead time for printing.

XIV. Outstanding New Mexico Science Teachers

Our Local Section collaborates with the New Mexico Academy of Science (NMAS) on the awarding of two Outstanding New Mexico Science Teacher Awards. The awardees were recognized at the annual NMAS banquet on November 15, 2008 in Albuquerque at the New Mexico Museum of Natural History.

Jennifer Coughlin (Eldorado High School, Albuquerque) award acceptance remarks

I have loved science since I was a little girl, changing what I wanted to be when I "grew up," each time we studied a new science unit. When I graduated high school, I left Golden, Colorado to attend the University of San Francisco majoring in Chemistry with an emphasis in Biochemistry. While at USF, I had the opportunity to do genetic research while I worked for the Bay Area Air Quality Management District. Unable to decide what to study in graduate school, I joined Teach for America committing to provide two years of community service.

I was placed in Shreveport, Louisiana at an inner city school, where I taught chemistry, physical science, and Earth science, and developed a summer, computer-based literacy program while coaching girls' basketball and taking classes at Centenary University. While teaching, I continued to do pharmaceutical research at Bristol Myers Squibb.

After completing my years of service, I returned to the southwest, thinking I would return to graduate school, but as fall approached, I felt something was missing. Maybe it was my new-found love of school supplies and back-to-school shopping. A friend of mine, working in local education, convinced me to visit her in Albuquerque to look for a teaching position at Bernalillo High School. During my four years in Bernalillo, I taught biology, chemistry, geology, forensics and chemistry of cooking, wrote curriculum, bond issues and grants and coached girls' soccer and softball.

In 2000, I accepted my current teaching position at Eldorado High School. I try to develop a rigorous curriculum incorporating numerous authentic experiences throughout the year. I am currently teaching Analytical Physics full time and have initiated and developed an annual Rube Goldberg competition each spring. The competition is a school wide event that involves 300 students as well as 70 mentors from the

community. The event gives students a taste of the collaborative, creative problem solving that is essential to being a scientist. I would love to have you all volunteer as mentors.

My experience at EHS has also provided me the opportunity to develop both personally and professionally. I love teaching and learning and continue to seek new research experiences to enhance my skills as a teacher and a scientist. For example in 2003, I traveled to Brazil on a Fulbright-Hayes grant to study the Pantanal Wilderness.

In 2005 some of my students challenged me to become an Albert Einstein Distinguished Educator Fellow at the US Department of Energy in Washington, D. C. While at the DOE, I worked on STEM education policy, sat on grant panels, evaluated teacher professional development programs, and facilitated the National Science Bowl.

Through national grants and awards such as the NSF Research Experience of Teachers and Department of Energy ACTS programs, I have been able to get back into cutting edge labs. These experiences with scientists like yourselves have furthered my own science knowledge and have improved my teaching and practice. Scientists like those of you in the New Mexico Academy of Sciences help to enrich my classroom and my life. Thank you for this tremendous honor.

Theresa Apodaca (Sarracino Middle School, Socorro) award acceptance remarks

Theresa was born in Socorro, NM and lived there until she was in the third grade, then she and her family moved to several other states to follow employment opportunities. Theresa's dad was a hard rock miner and laborer. The family settled in the Silver City area until Theresa was in the eighth grade, then the family moved to Tempe, Arizona. She was very active in the theater while in high school and won numerous awards including best actress in state competition for two years.

After high school Theresa moved to Carlsbad where she worked underground in the potash mines operating heavy equipment for about three years. Living in Carlsbad built character in Theresa. She then realized she wanted to pursue a degree and moved to Socorro to attend New Mexico Tech to pursue a bachelor's degree. She met her husband, Gregory Miller while attending Tech. While they lived in Tennessee Theresa completed her B.S. in Environmental Science and an M.S. in Curriculum and Instruction at University of Tennessee in Knoxville. She began her teaching career in Oak Ridge in 1994. She taught second grade for two years and won several grants for an outdoor science lab which included parents, students, teachers and community members.

Theresa and her husband moved back to Socorro in 1997. Theresa joined the Socorro School System and was a fourth and fifth grade teacher. She was then transferred to Sarracino Middle School to teach science. Her knowledge and many life experiences have helped her become an excellent educator and community member. She carries an excellent rapport with the children and creates many hands-on activities to make learning fun.

Theresa's hobbies include paper cutting, reading, acting, and Egyptology. Theresa balances her artistic interests with a teaching career in the public schools, and service on public and private boards, including Women of the West and the El Camino Real Heritage Center. Theresa has been involved with the Socorro Community Theater and has been involved in many plays as an actor and director. Theresa is well respected in the community and many children have been touched by generosity and excellence in a sound education.



Women Chemists Committee Meeting
Central New Mexico Section
American Chemical Society



“NUCLEAR NONPROLIFERATION TREATY AND BEYOND:
ISSUES IN THE 21ST CENTURY”



a Presentation by

Cheryl Rofer

Immediate past president
Los Alamos Committee on Arms Control
and International Security

SATURDAY, MARCH 14, 2009
11:00 A.M.

Santa Fe Community College, Classroom 217

A light lunch will be served
Following the talk there will be chemical demonstrations by our members.

IMPORTANT!

PLEASE RSVP

Mary Singleton

maryhas@juno.com

505-689-1099

505-927-8107 cell (meeting day only)



Speaker's Biography

Cheryl Rofer is an author and lecturer on international relations and nuclear policy, and the immediate past president of the Los Alamos Committee on Arms Control and International Security.

Trained as a chemist, with degrees from Ripon College, Wisconsin and the University of California at Berkeley, she retired in 2001 after 36 years as a staff scientist at Los Alamos National Laboratory. Her work there included developing technologies for the decommissioning of nuclear weapons and management of environmental cleanups.

Cheryl was involved with environmental cleanups at a uranium processing plant in Estonia and was an advisor to a project assessing radiological hazards at the former Soviet nuclear test site at Semipalatinsk, Kazakhstan. Her travels have taken her to both countries, and she is learning Estonian.

She blogs with Patricia Sharpe and Patricia Kushlis at WhirledView (<http://whirledview.typepad.com>).

Publications include:

"Turning a Problem into a Resource: Remediation and Waste Management at the Sillamäe Site, Estonia."

"Nuclear Nonproliferation in the 21st Century," a chapter co-authored with Molly Cernicek, in *Threats in the Age of Obama*, edited by Michael Tanji (Nimble Books, 2009).

Directions to Santa Fe Community College:

From HWY 599: take **Airport Road** heading east. In approximately 3 miles, continue across Cerrillos Road (a major intersection)—here Airport Road becomes **Rodeo Road**. After approximately 1 mile, turn right onto **Richards Avenue** and drive for 2.5 miles. Santa Fe Community College will be on your left.

From the college entrance, bear left to the Main Entrance. There is plenty of parking. Walk to the covered entrance of the campus and enter the door immediately on your left. There will be signs directing you to Classroom #217.

Coming from Albuquerque: take the **Cerrillos Road** exit off I-25. In approximately 2.5 miles you will reach a major intersection—turn right onto **Rodeo Rd**. After approximately 1 mile turn right onto **Richards Avenue and drive** for 2.5 miles. **Santa Fe Community College** will be on your left.