



**AMERICAN CHEMICAL
SOCIETY**

PERMIAN BASIN SECTION

Newsletter

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Permian Basin Election Results

The results from our most recent Permian Basin section election were:

Chair-Elect: Dr. Pat Nandakumar
Secretary: Mr. Kevin Boudreaux
Treasurer: Dr. Kyle Beran
Councilor: Dr. Kathryn Louie

Upcoming Permian Basin Meetings

January 26&27, 2016

Speaker: Dr. Mary Virginia Orna (College of New Rochelle)

Dr. Orna will present "Found and Lost: Incredible Tales of Spurious, Erroneous, and Rehabilitated Elements" at a meeting of the ACS Permian Basin Section on Tuesday, January 26, 2016. The talk, cosponsored by the Chemistry & Biochemistry Department, is at Angelo State University, Cavness building, room 200, starting at 7:00 PM. Dr. Orna also will present "The Chemist as Detective in Examining Art and Artifacts" at the San Angelo Museum of Fine Arts, Wednesday, January 27, 2016 at 5:30 PM as part of the SAMFA Collectors Society Programs.

Both talks are free. For more information, please call 325-947-1369.

Biographical Sketch:

Sister Mary Virginia Orna, O.S.U. (Order of Saint Ursula) is Professor of Chemistry at the College of New Rochelle. She is also former Director of Educational Services at the Chemical Heritage Foundation and former Publications Coordinator of the *Journal of Chemical Education*. She received her Ph.D. in analytical chemistry from Fordham University. She has lectured and published widely in the areas of color chemistry and archaeological chemistry.

Her articles have appeared in the *Journal of Chemical Education*, *Color Research and Application*, *Studies in Conservation*, *Analytical Chemistry*, *Microchemical Journal*, *Journal of Biological Chemistry*, American Chemical Society monographs, and various other journals.

Dr. Orna was a Fulbright Fellow in Israel (1994-95) where she lectured at The Hebrew University, The Weizmann Institute of Science and Shenkar College of Textile Technology. She also did research on ancient middle-eastern artifacts in collaboration with the Israel Antiquities Authority, the Israel Museum and the Edelstein Center for the Analysis of Middle Eastern Textiles and Related Artifacts. She spent Spring, 1995 in Italy where she studied Italian language and examined Italian medieval manuscripts.

Dr. Orna is active in several divisions of the American Chemical Society. She is currently serving as ACS Councilor and a member of the ACS Local Section Activities Committee. She is a recipient of many awards, among which are the 1989 CASE (Council for the Advancement and Support of Education) New York State Professor of the Year and National Gold Medalist Award, the 1989 Merck Innovation Award, the 1996 recipient of the James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry. She received the ACS's 1999 George C. Pimentel Award in Chemical Education, the 2008 Henry Hill Award, and the 2009 ACS Award for Volunteer Service.

Presentations:

“Found and Lost: Incredible Tales of Spurious, Erroneous, and Rehabilitated Elements”

Angelo State University

Cavness building, room 200

Tuesday, January 26, 2016 at 7:00 PM

Fascinating as the Periodic Table and its tenants are, this talk will highlight equally fascinating tales of failed candidates that never made it into the Periodic Table. Before Mendeleev, confusion regarding just what and how many elements there were reigned supreme – and continued to do so well into the 20th century due to conceptual, absurd, and even ridiculous errors. Some of these wrong turns were the results of experimental errors of the grossest sort, whereas others arose from incompetence, scientific fraud, unorthodox beliefs, misplaced nationalism, and just plain obstinacy. These tales of folly, human ambition...and ingenuity give us a unique understanding of how chemistry really works. This talk is based on her recent book co-authored with Marco Fontani and Mariagrazia Costa, *The Lost Elements: The Periodic Table's Shadow Side* (Oxford University Press, 2015)

“The Chemist as Detective in Examining Art and Artifacts”

San Angelo Museum of Fine Arts

1 Love Street, San Angelo, Texas

Wednesday, January 27, 2016 at 5:30 PM

The methods of modern chemistry can be used as probes to examine the provenance and to aid in the conservation of art objects and artifacts. In addition, these methods can help enormously in clarifying the techniques by which these objects were made, in determining their content, and in dating their origins. A variety of methods will be illustrated in the examination of such materials as medieval stained glass, Middle Eastern obsidian and pottery, and 20th century art forgeries. Although such methods can give great insight into the objects in question, there are limits to such technology; these limitations will also be discussed.

Upcoming National and Regional Meetings and Programs

251st ACS National Meeting & Exposition

– Spring 2016

San Diego, California, USA

March 13-17, 2015

Theme: Computers in Chemistry

Computers in Chemistry

Permian Basin News

The 9th Annual Eco Fair took place at the San Angelo Museum of Fine Arts on October 10, 2015. As a part of this program, Dr. Pat Nandakumar from Midland College presented “Sequestration of CO₂ from the Atmosphere into Short Chain Carbon Molecules” on October 10, 2015, as part of the section’s Speaker Series. The ASU student group also presented some green chemistry-themed demonstrations, including a demonstration of starch packing peanuts, and the making of biodiesel from vegetable oil and potassium hydroxide.





On Thursday, October 22, Dr. Erich Uffelman, Bentley Professor of Chemistry at Washington and Lee University, gave two presentations in San Angelo. The lectures were sponsored by the San Angelo Museum of Fine Arts, and the ASU SPURRS program (Science Partnership for Undergraduate Recruitment, Retention, and Success). One presentation, given in the afternoon at the Cavness Science Building on the ASU campus, was entitled “Fakes, Forgeries, and Attributions: When Can Science Answer Questions about Paintings and Cultural Heritage Objects?” The other presentation was given that evening at the San Angelo Museum of Fine Arts, and was entitled “Scientific Adventures with Old Master Paintings and Other Cultural Heritage Objects.” Dr. Uffelman also did some live demonstrations using analytical equipment to analyze some of the artwork in the SAMFA collection.

A Chemical Thought

Immediately south of nitrogen [on the periodic table] is phosphorus, which was first isolated by the distillation and treatment of urine — an indication of the lengths to which chemists are prepared to go, or perhaps only a sign of the obsessive, scatological origins of their vocation.

P. W. Atkins, *The Periodic Kingdom: A Journey into the Land of the Chemical Elements* (1995)

Chemists Just Want To Have pHun

A Chemistry Christmas Carol:

“Lab Reports”

(to the tune of “Jingle Bells”)

Dashing through the lab
with a ten-page lab report
Taking all those tests
and laughing at them all
Bells for fire drills ring
making spirits bright
What fun it is to laugh and sing
a chemistry song tonight.

Oh, lab report, lab reports,
reacting all the way
Oh what fun it is to study
for a chemistry test today, Hey!

Chemistry test, chemistry test
isn't it a blast
Oh what fun it is to take
a chemistry test and pass.

1	13	15	15	39
H	Al	P	P	Y
1.00797	26.98154	30.97376	30.97376	88.9059

1	8	3	66	13	39	16
H	O	Li	Dy	Al	Y	S
1.00797	15.9994	6.941	162.50	26.98154	88.9059	32.06

Permian Basin ACS Local Section Officers 2016

<p>Chair: Dr. Kathryn Louie Angelo State University phone: (325) 942-2181 e-mail: klouie@suddenlink.net</p>	<p>Treasurer: Dr. Kyle Beran University of Texas of the Permian Basin phone: (432) 552-2238 e-mail: beran_k@utpb.edu</p>
<p>Secretary: Mr. Kevin Boudreaux Angelo State University phone: (325) 486-6623 e-mail: kevin.boudreaux@angelo.edu</p>	<p>Chair-Elect: Dr. Pat Nandakumar Midland College phone: (432) 685-6738 e-mail: pnandakumar@midland.edu</p>
<p>Councilor: Dr. Kathryn Louie Angelo State University phone: (325) 942-2181 e-mail: klouie@suddenlink.net</p>	<p>Alternate Councilor: Dr. John Osterhout Angelo State University phone: (325) 486-2181 e-mail: John.Osterhout@angelo.edu</p>

If you have news about local activities, student activities, new employees, new members, good (or bad) science/chemistry jokes, or any other events related to the local section that you want to be included in the newsletter, please send the information to Kevin.Boudreaux@angelo.edu.