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# INTERVIEW WITH ACS EXECUTIVE DIRECTOR MADELINE JACOBS. PART 1.....5

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## TABLE OF CONTENTS

50 Years Ago in the <i>SW Retort</i> .....	2
Interview With Madeline Jacobs. Part 1 .....	5
Erratum.....	10
Disappearing “Discoveries” .....	10
Genie Hansen .....	11
History Gets Respect.....	12
Chem Gems and Joules .....	13
Around-the-Area .....	15
East Texas .....	15
AnaLab .....	15
Univ of Arkansas.....	15
Mabie Mable dies at 51 .....	15
South Plains.....	16
Heart o’ Texas .....	16
Dallas-Ft. Worth.....	17
Call for Award Nominations .....	17
December Seminar Schedule.....	22
DFW Upcoming Meetings .....	23

## INDEX OF ADVERTISERS

American Polymer Standards Corp.....	14
ANA-LAB.....	4
Chemir.....	14
Fox Scientific .....	10
Huffman Laboratories .....	3
Kelly Scientific Resources .....	24
Kforce.....	8
SciConsult .....	11
<b>Sponsor Members.....</b>	<b>3</b>

November  
2004

PERIODICAL

# FIFTY YEARS AGO IN *THE SOUTHWEST* *RETORT*

The ACS tour speaker for November is **Professor Milton Burton**, Director of the Radiation Chemistry Project at Notre Dame University. His two topics are "Radiation Chemistry" and "Chemistry of the Electrical Discharge."

At UT-Austin faculty members **G. W. Watt**, **L. F. Hatch**, **F. A. Matsen**, and **J. E. Boggs** attended the recent ACS meeting in New York. Dr. Boggs chaired a session in the physical-inorganic section. **Norman Hackerman** gave a two week course on "Electrochemistry and Corrosion" at Humble in Baytown. **Royston M. Roberts** has been granted a research leave from his teaching duties for the fall semester.

**Dr. Charles E. Boozer** is a new Associate Professor of Chemistry at Louisiana Tech. Dr. Boozer obtained his Ph.D. from Rice University and held a post-doctoral appointment with George Hammond at

Iowa State. The new head of the Louisiana Tech Chemistry Department is **Dr. Charles H. Smith**.

At Texas A&M **Dr. Tom Burkhalter** and **Mr. John Beckham** have been promoted. Burkhalter advanced to the rank of Associate Professor and Beckham became Assistant Professor. Baylor has an expanded enrollment of students in chemistry, including 15 graduate students. **Dr. A. G. Pinkus** attended the Conference on Reaction Mechanisms held at the University of New Hampshire in September. New Baylor faculty member **Dr. T. C. Franklin** has received a \$3400 grant from Research Corp. to study competitive adsorption of hydrogen and foreign substances on the hydrogen electrode. The grant will be used to finance purchase of a polarograph to be used in the research and to pay a graduate stipend.



# Southwest Retort

*Published for the advancement of  
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and Chemistry in this area.*

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# Southwest Retort

FIFTY-SEVENTH YEAR

November 2004

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## An Interview With ACS Executive Director Madeline Jacobs. Part 1

Interviewer: E. Thomas Strom

A little over three years ago we did an interview with then *C&EN* Editor-in-Chief Madeleine Jacobs when she was in Fort Worth to give the TCU Ruth Evelyn Sanders Lectures. (See October, 2001 issue of *The Southwest Retort*, pp. 5-7.) Now Madeleine Jacobs wears a different hat, that of Executive Director of the American Chemical Society. She is the first woman to hold that position. I was able to interview Ms. Jacobs at the recent SWRM 2004 meeting in Fort Worth. First I will refresh our readers' memories about Madeleine Jacobs, and then I will provide her responses in our recent interview.

### **About Madeleine Jacobs.**

Madeleine Jacobs was born in Washington, D.C. and grew up in a family of musicians. However, fascinated by a science program on TV called "Meet Mr. Wizard," she became interested in science. A

general science teacher directed her interests into chemistry. During high school she worked summers in laboratories. She won a four year scholarship to George Washington University, where she also took literature courses. She graduated with a B.S. degree with honors in 1968.

After graduation Madeleine was married, and the plan was that she and her then husband would attend graduate school together at Stanford. However, her husband was drafted and was assigned to a two year stint at a federal agency in Washington, D.C. Madeleine decided she would spend the two years getting a master's degree somewhere.

She was accepted at the University of Maryland and completed her master's course work the first year. Then it was time to do her research work during a hot Maryland summer in a 4<sup>th</sup> floor

laboratory that was *not* air conditioned. A few months of months of this drove her to try to get employment at *C&EN*. She managed to see Publisher Dick Kenyon without an appointment. Kenyon directed her to Editor Patrick McCurdy. Madeleine had read *C&EN* cover to cover for five years straight, so she told McCurdy all that was wrong with the magazine. Somehow he saw something in this eager young chemist, and so he hired her. When her husband went to Stanford after his Washington stint, she continued to work for *C&EN* in its San Francisco office. After the failure of the marriage, she returned to Washington, still working for *C&EN*. There she met her husband, artist Joe Jacobs.

In 1972

Madeleine started the first of several jobs away from *C&EN*. She went to the National Institute of Allergy and Infectious Diseases as a writer and editor. In 1974 she joined the staff at the National Bureau of Standards, where she attained the position of chief of media liaison and general publications. In 1979 she went to the Smithsonian Institution, where she soon became director of the Office of Public Affairs.

In 1993 Madeleine returned to *C&EN* as Managing Editor, and in 1995 she was chosen as Editor-in-Chief. She had been told that *C&EN* was a family, and she found the description apt, if the family was a dysfunctional one. She is a high energy person, and much of the dead wood chose to retire rather than keep up with her. Then in January, 2004, she officially became the first woman

Executive Director of ACS.

Her numerous hobbies include cooking, photography, swimming, weight training, gardening, and writing poetry. Singing is also a hobby. She particularly loves the music of Cole Porter and has memorized the lyrics and music of some 200 Cole Porter songs. She sings these songs

unaccompanied in a lovely, clear soprano voice.

Clearly Madeleine Jacobs is a remarkable person in a highly demanding job. Now let's let her speak for herself.

**Interview. ETS:** What exactly does the Executive Director do?

**Jacobs:** I run a small corporation called the American Chemical Society. I thought I knew everything about ACS because of my Editorship of *C&EN*, but it was a real eye-

**Former *C&EN* editor-in-chief Madeline Jacobs is the first woman Executive Director of the ACS**

opener to fully comprehend the complexity of this wonderful Society that we have. Everyone knows we have 159,000 members, but supporting that are basically two companies, *Chem[ical] Abstracts Service* and [the] Publications Division, and then all of the people who support the Society programs: Member Services; Meetings and Expositions, Awards, and all of that. We have 1900 employees.

**ETS:** How does that number of employees compare with those at *C&EN*?

**Jacobs:** Fifty-five at *C&EN*, so the first thing is that the members only think of the membership part and don't realize that it is an integrated organization. It isn't that we have those two companies out there doing their own thing, because they very much communicate on a daily basis with me and the rest of the staff. So, we have these 159,000 members, 1900 employees, and besides these two scientific publishing/information organizations, which make it possible through their net revenues to do all the services we do for members, we also manage for the profession, for our members, and for our employees one billion dollars in assets. That breaks down roughly this way--500 million dollars to the Petroleum Research Fund, which we own and administer, and that gives out 18 to 25 million dollars a year to researchers and has just celebrated its 60<sup>th</sup> anniversary and the 50<sup>th</sup> anniversary of its first grant. That makes us almost the largest philanthropy that just gives money to chemical

research. We also manage a 350 million dollar pension fund for our retirees and employees, which I'm pleased to say is in good shape. Then we have another fund, which is about 225 million dollars; that is our investment fund. That includes restricted endowments for Project Seed and other fellowships and basically money in reserve for capital improvements and other things. The Executive Director basically runs this company with 420 million dollars in revenue. I spend my days working on the businesses and our members' concerns and my days, as they did at *C&EN*, start at 7 in the morning and they go to 7 at night. There's a lot of travel, such as here I am at the Southwest Regional Meeting and delighted to be here, but there's quite a bit of travel involved.

**ETS:** Do you directly manage the finances or are they run by banks?

**Jacobs:** Of course, the Treasurer's Office is responsible for the funds, but it isn't as if I don't get involved. I don't make the decisions, but I sit on all the committees that oversee these funds. The funds are handled by professional investment firms. Those committees meet at least three times a year, and the investment firms are different for the investment fund, the capital fund, and the Petroleum Research Fund. So, there is a lot of financial management. There's a budget that the Board of Directors has approved, and managing that budget is a large task. Unexpected expenses come up -- sometimes unexpected revenue,



that's nice, but it is a 420 million dollar a year operation; and only 14 million dollars of that comes from our members' dues.

**ETS:** I have been looking over old ACS correspondence in preparing the paper I'm going to give tomorrow, and the main staff office say 60 years ago seemed to be the Secretary. Is the office of Executive Director nowadays like the office of Secretary many years ago? I'd like some historical perspective.

**Jacobs:** In the early days there wasn't an Executive Director. There was a Secretary, who was the major person. I think the first Executive Director was in the '60's, so it's a relatively recent office. I think I am probably the fifth Executive Director. One thing to note is that while we administered the Petroleum Research Fund, we didn't actually own it. Those assets were transferred to us in 2000.

**ETS:** What do you see as the challenges and opportunities for ACS in the next four to six years?

**Jacobs:** I think we have several. Let me start with the one that I think is of most concern to our members. That is, why do people join ACS? When I left graduate school in 1969, I had been in an ACS-approved curriculum; I had been reading *C&EN* from my freshman year; it never occurred to me that I wouldn't join ACS when I graduated with my bachelor's degree. It was just something that you did if you identified yourself as a chemist. It was a matter of professional pride. Also, people joined for the journals, because you

got a great price break if you were a member; and you got *C&EN*, which is kind of a constant with membership. That value of membership has changed dramatically in the last decade. Journals are now electronic, and they are site-licensed. People still have subscriptions and get them, but, if you are an academic or work in an organization, most likely you get your site license through your organization. You access your journals electronically, and you probably use some form of Scifinder to do your searches. In this last decade we've seen this radical transformation in the field of chemistry, which is reflected in the pages of *C&EN*. Chemists more than ever before work at the interface of biology, medicine, physics, mathematics, electronics, electrical engineering, computational science, etc. They may have a degree in chemistry at any level, but they may no longer be thinking of themselves as a chemist. They may be thinking of themselves as a protein specialist or a crystallographer or an enzyme specialist or a materials researcher. They don't automatically think of ACS as their professional home. Many professional societies are facing this. What is the value we bring to our potential members? I think this is the fundamental challenge.

*We will publish the rest of our interview with Madeleine Jacobs in the December Southwest Retort.*

## ERRATUM

In last month's article on 2004 Schulz Award Winner Paul Price, I stated incorrectly that the honorarium was \$1500. It is \$1000. In that same article I mentioned that Dr. Robert Roe founded the Schulz Award in 1990. To give more details, Dr. Roe donated funds originally to honor his friend and colleague Dr. Werner Schulz. Since then, the D-FW Section has continued to fund the award. Dr. Roe himself has outstanding teaching credentials. While teaching at Skyline High School in Dallas, he was a past winner of the ACS National 1982 James Bryant Conant Award given each year to an outstanding high school chemistry teacher.

Fox Scientific Ad

## Disappearing “Discoveries”

Perhaps this item may seem of chiefly local interest, but we think there may be significance as to how science is regarded by the powers that be. For a number of years *The Dallas Morning News* has published a “Discoveries” segment every Monday in the Living section of the paper. The segment ran about four pages, and it presented important, up-to-date news about science and health issues. The Science Editor for *The Dallas Morning News* was Tom Siegfried, a 1993 winner of the ACS Grady-Stack Award for Interpreting Science for the Public. Siegfried had received many other accolades and had published two well-received books on science for the general public. Siegfried's weekly column was one of the highlights of Discoveries.

In the last year it was found that some individuals with *The Dallas Morning News* had been inflating circulation figures. This discovery meant that *The News* had to refund millions of dollars to advertisers, who had paid for more circulation than they really were getting. Of course, this meant that people further down in the food chain had to suffer

for management mistakes. On Oct. 27 *The Dallas Morning News* laid off more than 10% of their staff including half of the Discoveries staff and Science Editor Siegfried. Nov. 1 was the last publication date for Discoveries.

It seems to us that this deletion shows the poor regard in which science is held by the general public. The management of the paper decided that deleting science would be more acceptable than say cutting

out ten comic strips. Sad to say, the paper management is probably right.

\*\*\*\*\*

*The ability to make fast adjustments and recover quickly is the difference between a manageable problem and a full-blown crisis.--Jeffrey R. Caponigro*

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## **Sponsor Member Genie Hansen**

Eugenia S. (Genie) Hansen, a long-time ACS member and Sponsor Member of *The Southwest Retort*, recently relocated to the Dallas (Plano) office of Conley Rose, P.C., a law firm specializing in intellectual property law. Genie focuses her practice on chemical, biochemical, and medical patent law, and she also has an active trademark practice.

Recently she served as Chair of the ACS SWRM 2004 Symposium on "Chemistry and the Law" held in Fort Worth. She brought in speakers on immigration law, employee inventors, valuation of intellectual property, and patent prosecution practice. She herself gave a presentation on environmental patents.

Genie holds B.S. and M.S. degrees in biochemistry from Texas A&N University and a J.D. from the University of Houston Law School. She has been a patent attorney since 1984 and is very active in professional organizations, currently serving as Chair of the State Bar of Texas Intellectual Property Section.

Place SciConsult ad here

# HISTORY GETS RESPECT

The late comedian Rodney Dangerfield's schtick was that he "got no respect." At ACS national meetings it often seems that the ACS History of Chemistry Division also gets no respect. The division usually has small meeting rooms, and it must be admitted that crowds often are small. However, for a change the Symposium at SWRM 2004 on "Perspectives in the History of Chemistry" got some respect. The audience reached a peak of 45 for Sean O'Brien's talk on "The Discovery of Buckminsterfullerene. The audience for the other talks ranged from the high 20's to the low 30's, excellent for a history symposium.

The speakers were a good mix of local and national figures. Local representatives were Jim and Virginia Marshall, John Fish, Sean O'Brien, and Tom Strom. From the Southwest came James Traynham, John Borchardt, and Joe Lagowski. Chemists from all over the country included Don Hicks, Lyman Caswell, Seth Rasmussen, Erwin Klingsberg,

and David Lewis. Of course, a highlight of the meeting was the award for the best paper published in the 2003 *Bulletin for the History of Chemistry* given to Jim and Virginia Marshall.

Symposium speakers are



standing from left to right Jim Marshall, Lyman Caswell, James Traynham, David Lewis, Seth Rasmussen, and Don Hicks. Seated from left to right are Virginia Marshall, Tom Strom, Sean O'Brien, John Borchardt, and John Fish. Not pictured is Joe Lagowski.

## Leading Together - The new quarterly newsletter for Local Sections

The new quarterly newsletter "Leading Together" is designed specifically for ACS members that are interested in further engaging their local section. The newsletter is 100% electronic and can be found at: [http://membership.acs.org/1/localsections/leading\\_together/](http://membership.acs.org/1/localsections/leading_together/) Any local section member interested in local sections and leadership

development may subscribe. Email [olsa@acs.org](mailto:olsa@acs.org) and include "Subscribe Leading Together" in the subject line of your message. The newsletter is free and is distributed once every four months.

# Chem Gems & Joules

Be sure to read the write-up on the "Inquiry Matters" event sponsored by the D-FW Section, which is described in this issue in the D-FW part of Around-the-Area. Although those experiments are geared toward elementary school students, perhaps some of them would be useful for high school chemistry classes as well.

The proposed new four year science requirement for students under the Recommended and Distinguished Recommendation Plans is not without controversy in the high

school science teaching community. ACT2 Secretary Bob Casao circulated many of these comments this summer via e-mail to ACT2 members. To refresh the memory of the ACT2 Metroplex members and to inform readers of *The Southwest Retort* about these important matters, Casao has given us permission to reprint some of this correspondence. This month's column and probably next month's as well will deal with these issues. Some of the comments will be republished in edited and abridged form.

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Dr. Sandra West in the Biology Department at Texas State University says that there is NO science teacher "shortage" problem. However, there are several related problems.

1. **Attrition.** 50% of teachers are lost in the first five years. New science teachers are required not only to teach but to "sponsor" a UIL activity such as drill team or coaching a sport. They have to "float", are given multiple preps, and have the most difficult students to teach. No wonder there is a 50% attrition rate.

2. **UIL during the academic day.** If science teachers assigned UIL duties during the school day just taught science, the "shortage" would be significantly decreased. At my last high school there were seventeen science teachers, eight of

whom were drill team sponsors or coaches. If they had been teaching just science during the academic day, there would have been a surplus of science teachers.

3. **Dollars.** UIL may be the largest unfunded mandate for schools. No one has been brave enough to research this problem.

4. **Facilities.** Science facilities are inadequate because of poor planning and because good science instruction is not considered important. If the funds were spent on academic facilities instead of extracurricular activities, would there still be a shortage of funds for new science labs. A non-scientific survey that I conducted a couple of years ago was interesting. Including coach's salary, the latest UIL activity required \$300 per student. Only \$30 per student was spent on the science student.

[Chemir AD]

*Dr. West's comments triggered the following response from an anonymous member.*

I beg to differ that there is NO science teacher shortage. We have been looking for a science teacher since March. We have had two applicants. There is a shortage in areas where the state base is the norm. Also, there had been a permanent sub in my position for a year and a half before I took the job.

We are apathetic because we are not listened to by the SBOE, TEA, and just about any other agency that makes decisions about curriculum and education. The TEKS for example are an insult to anyone who has a chemistry or physics degree. We are being asked to NOT teach more than we are being asked TO teach. In my opinion, anyone who can read can teach the watered-down chemistry and physics that is being sought after today. If I could have retired this last year, I would have done so in a heart beat. Teaching chemistry now is nothing like it was when I started teaching in the '70's. Physics in my opinion is a joke. I

don't even want to teach it anymore. I believe that the physical science certificate is more than adequate for the watered-down chemistry and physics that we are being asked to teach. I don't agree with the TEKS. They are a joke and an insult to any science loving person, and we told them so at the time they were proposed. Did they listen? No! They are reaping the harvest of what they sow—MEDIOCRITY. Unfortunately, the ones who suffer that most are the students. Because of that, I still try to teach the subject, not just the TEKS.

Four years of required science will be the end of any quality science program. Look at math!!!! Not everyone can or wants to do four years of science. They will finally succeed in making science teachers hate teaching!

*As you Retort readers can see, some teachers don't think four years of science is such a good idea.*

[American Polymers Ad]

*Column editor Robyn Shipley-Gerko of Plano High School welcomes future material for this column that would be of interest to chemical educators. Send your material by e-mail to Robyn at [Rshiple@pisd.edu](mailto:Rshiple@pisd.edu).*

# AROUND THE AREA

## East Texas

The October speaker for the Section was **Dr. Michael K. Pangburn** from the UT-Health Science Center at Tyler. His topic was "Biotechnology Today." The next meeting will be Nov. 17 at UT-Tyler. This meeting will be the Student Research Symposium.

**Ana-Lab Gets Seal of Excellence Award.** For the second year in a row, Ana-Lab Corp. of Kilgore has received the American Council of Independent Laboratories (ACIL) Seal of Excellence Award. The announcement was made on Oct. 11 at the ACIL Annual Meeting in Orlando. Ana-Lab also received a Special Recognition Award for being one of the top ten laboratories in the country for customer satisfaction based on responses from client surveys. Founded in 1965 by Dr. C. H. Whiteside, Ana-Lab Corp. provides quality environmental testing. Headquartered in Kilgore, Ana-Lab Corp. is one of the leading environmental testing laboratories in the country with eight regional offices and nearly 100 employees.

\*\*\*\*\*  
*Instead of forcing employees to think outside the box, supply a bigger, better box.*

\*\*\*\*\*

## University of Arkansas

### **In Memorium Monica Mabie.**

Well-loved staff member Monica Mabie died in a late night, single car accident on Sept. 27 near Hamilton, Alabama. Her companion Jon Ketzler also died in the accident. Monica Mabie was born on Mar. 17, 1953. She first joined the chemistry department in 1977 and served for almost 28 years. She served many department chairs and was assistant to current chair Bill Durham. In the October departmental newsletter Durham paid a lengthy tribute to her and finished his comments with the simple, "Monica was here for all of us."

**Xiaogang Peng** was one of three Fulbright College professor highlighted in the Chancellor's State of the University address. **Peter Pulay** and a group of UA scientists from computer science and physics have been awarded a major research grant for a modern scientific computer cluster. Pulay was a keynote speaker during the symposium "Advances in Quantum Chemistry: Theory, Algorithms, and Applications" at the fall ACS meeting. At SWRM 2004 in

Fort Worth graduate student **Ryan Dossey** gave a paper, and faculty member **Matt McIntosh** gave an invited lecture in the Organic Synthesis Symposium. McIntosh gave a lecture in September at UAMS, and in October he gave talks at Duquesne and Allegheny College in Pennsylvania, at West Virginia University, and at the University of Eastern Michigan. **Ingrid Fritsch** gave an invited talk at the Oct. 3-8 meeting of the Electrochemical Society in Honolulu and at Pittsburgh State University Oct. 15.

### South Plains

**Texas Tech. Professor Robert W. Shaw** served on the NSF Biosensors Panel this summer. In August he gave a lecture titled "Inhibition of Bacterial Metallo-*Beta*-Lactamase by Oligonucleotides" at the Biophysics Department, National Biomedical EPR Center, at the Medical College of Wisconsin in Milwaukee.

**Professor Amos B. Smith, III**, of the University of Pennsylvania gave the Sixth Henry Shine Lecture on Nov. 4. His topic was "Evolution of a Gram Scale Total Synthesis of (+)-Spongistatin 1: Challenges, Excitement, and Frustrations."

### Heart o' Texas

**Baylor University.** The NSF has funded a proposal for a 500 MHz NMR spectrometer. The

department is purchasing a Varian INOVA 500 expected to be delivered in February. The 5<sup>th</sup> Annual Student Research Symposium was a big success. Twenty-one posters were presented by researchers from eight departments. Keynote speaker for the symposium was **Dr. James T. Wilkerson**, President of the UT-Health Sciences Center in Houston. His topic was "Stem Cells for Failing Hearts."

**Mrs. Eunice Kundert Stephens**, widow of former department chair (1949-1965) W. R. Stephens passed away on Oct. 5. The Gooch-Stephens Lectureship is named in part for Dr. Stephens.

**Dr. Charles Garner** gave a seminar at Austin College on Oct. 13 on the topic "C6F5- as a Good Leaving Group." **Dr. Alton Hassell** attended the Benjamin Cummings Chemistry Textbook Forum in Savannah, GA on Oct. 16.

**Dr. Mary Lynn Trawick** and group members **Sam Chen**, **Frank Gonzalez**, **Benon Mugabe**, and **Maryuri Roca** attended SWRM 2004 in Fort Worth, where they presented four poster papers. **Calondra Colvin** and **Seong Kwak** gave papers at the SWRM undergraduate poster session with co-author **Dr. Stephen Gipson**. A SWRM papers was presented by **Sayo O. Fakayode** with co-authors **Drs. Marianna** and **Kenneth Busch**. The Busch group also presented three papers at the October meeting of the Federation of Analytical Chemistry & Spectroscopy Societies held in Portland,

OR. Co-authors were **Dennis Rabbe**, **Isabel Swamidoss**, and **Sayo Fakayode**.

Colloquium speakers were: Oct. 8, **Kevin Burgess**, Texas A&M; Oct. 22, **Bruce Weisman**, Rice; Oct. 29, **Randy Thummel**, University of Houston. A special seminar was given in October featuring **Dr. Daryl D. DesMarteau** of Clemson speaking on "Super Acids of Nitrogen and Carbon."

## **DALLAS-FT WORTH**

*Professor Tracy Hanna at TCU is the D-FW local section correspondent. Send items directly to her: t.hanna@tcu.edu, fax 817.257.5851 or phone 817.257.6197.*

**Call for Nominations for the 2005 Schulz Award.** The Dallas-Fort Worth ACS Section solicits nominations for the 2005 Werner Schulz Award for Outstanding High School Chemistry Teachers. The award was established in 1990 to honor the memory of **Dr. Werner Schulz**, a remarkable high school chemistry teacher. This year's winner was **Mr. Paul Price** of Trinity Valley School in Fort Worth.

The award is intended for high school teachers who reside in the area served by the D-FW section of the ACS and who, like Werner, bring something extra to the teaching of chemistry. Nominees need not be members of the ACS. The award consists of a \$1000 honorarium, an engraved plaque, and a

traveling plaque which stays at the winner's high school for the year of the award. A picture of the winner will be displayed for a month at The Science Place I in Dallas. Following that, the winner's picture will be displayed permanently in the Gallery of Schulz Award Winners on the 4<sup>th</sup> floor of the Science Building at Tarleton State University in Stephenville. The winner will normally give a talk at a fall meeting of the D-FW Section.

The D-FW Section stretches from Abilene to Sherman to Commerce to Stephenville. Nomination forms may be obtained from, and should be submitted to, the D-FW Awards Committee Chair, **Dr. Jeffery Coffey**, Department of Chemistry, Texas Christian University, TCU Box 298860, Fort Worth, TX 76129. Jeff may also be contacted via e-mail at ([j.coffey@tcu.edu](mailto:j.coffey@tcu.edu)) or by phone at 817-257-7195. Nominations are due by January 24, 2005.

**Inquiry Matters.** On October 25 the D-FW Section hosted an "Inquiry Matters" training course. The course was an outstanding success. **James Kessler** ACS National Headquarters flew in to present the course, which he has taught for years. It is aimed at elementary school science teachers. He brought many hands-on examples such as: dissolving M&M's in water on a flat plate and watching the color diffuse away from the center; determining the composition of baking powder; determining an unknown liquid from the wetting of various

types of paper, etc. The 39 nine teachers attending were all 5<sup>th</sup> grade teachers from the Mesquite ISD. They were very enthusiastic and noted that the material was useful and appropriate for their classes.

This program was funded by an Innovative Ideas Grant from ACS. We have some ideas of how to train a local instructor to reduce expenses for a future session. It might be possible to coordinate a session where the fee was small but sufficient to pay for everything. We have 220 school districts in our area, so, at five sessions a year, it will only take 44 years to hit every district! Thanks also go to **Ken Ashley** of Texas A&M-Commerce for providing a room for the session.

**Texas Christian University.**

Two new faculty have joined the TCU Chemistry Department for Fall 2004. Dr. **Onofrio Annunziata** is an Assistant Professor of Biophysical and Macromolecular Chemistry. His research focuses on understanding and controlling phase transitions (e.g. liquid-liquid phase separation, crystallization, aggregation) and transport properties of solutions containing macromolecules (e.g. proteins, dendrimers, polymers) relevant to biotechnology and medicine. He graduated with a bachelor and master degree in Industrial Chemistry from Università di Napoli Federico II in 1997. He earned his Ph.D. degree in Physical Chemistry from TCU in 2001. From 2001 to 2004, he held a postdoctoral position in biophysics at MIT. Dr.

**Anne Richards** is an Assistant Professor of Inorganic Chemistry. Her research focuses on main group and transition metal clusters. She graduated from the University of Wales, Swansea, with a B. Sc. Hons in Chemistry. Four years later she completed her PhD under the supervision of Professor Cameron Jones at Cardiff University. After graduating from Cardiff University, she spent 6 months working for Bruker Biospin, then returned to a postdoctoral position for Professor Philip Power at U.C. Davis.

Prof. **Manfred Reinecke** recently received a Grant from the NIH titled "Defining an HIV Integrase Inhibitor Binding Pocket" in collaboration with UC Irvine School of Medicine. On October 8, Prof. **Jeff Coffey** visited the Department of Biomedical Engineering at Mayo Clinic (Rochester, MN) where he presented a seminar entitled "Nano and MicroCrystalline Silicon as Diverse Biomaterial Platforms." He also participated in the 12th NSF Workshop on Materials Chemistry and Nanoscience Oct 28-31 in Broomfield, Colorado, where he gave the presentation "Constructing Nanophase Silicon as a Biomaterial". Prof. **Tracy Hanna** participated in the SW Regional ACS Meeting Calixarene Symposium by presenting a talk titled "Metallocalixarenes: New Catalysts and Structure Models." Postdoctoral Associate **Lihua Liu** in the Hanna group presented a talk titled "Synthesis, Characterization, and X-ray Crystal Structures of the

first Bi(III) and Sb(III) Calixarene Complexes” at the same conference, and students **Mauricio Quiroz** and **Xiaodi Kou** presented posters titled “Synthesis and Structural Aspects of Molybdenum(VI) Mono- and Dioxo Complexes with Bulky Aryloxide Coligands,” and “Synthesis and Structural Studies of Bismuth Aryloxides,” respectively.

**University of North Texas.** In August **Dr. Diana Mason** organized and chaired the ChemEd Research Symposia on “Knowing, Learning, and Teaching Chemistry” and “Organic Chemistry Research and Evaluating Undergraduate Research.” At the symposium Dr. Mason and grad student **Christina Forsbach** presented “Facilitating Learning in General Chemistry Using Peer Teaching Assistants.” She has published a book, *Integrating Mathematics, Science and Technology: A Skill-Building Approach*, with coauthors and graduate students **Kathleen Cage Mittag** and **Sharon E. Taylor**. Dr. Mason received a Teacher Quality Type B Grant on “Preparing ‘High A’ Chemistry Teachers” from the Texas Higher Education Coordinating Board. She was appointed a member of the ACS 2006 Advanced High School Exam Committee. She organized a symposium on “Teaching Chemistry Using Discrepant Events” at the Biennial Conference on Chemical Education held this summer in Ames, IA and gave a *J. Chem. Ed.* Workshop on “What are

*JCE* Classroom Activities?” Graduate students **Kathleen Holley** and **Amina El-Ashmawy** gave papers at the symposium, while Dr. Mason presented a poster. She ran the *J. Chem. Ed.* booth at the Fort Worth ISD In-Service Day at Southwest High School in August and conducted a teacher in-service day for the Arlington ISD, accompanied by grad student Christina Forsbach. Dr. Mason and **Margaret Fraelich** of Fresnel Technologies organized two days of symposia on chemical education at SWRM 2004. Dr. Mason and **Cheryl Fresh** from the University of Central Oklahoma plus three grad students presented two papers at SWRM.

**Dr. Thomas Cundari** obtained a \$129,484 NSF grant for purchase of a computing cluster. The co-PI’s were Professors **Angela Wilson**, **Paul Marshall**, **Paul Bagus**, **Marty Schwartz**, and **Mohammad Omary**. Dr. Cundari gave a talk at the Michael Dewar Memorial Symposium at the Anaheim ACS Meeting and gave seminars at Tarleton State, UT-Brownsville, University of Oklahoma, and Oklahoma State University. One of his new students, **Tom Grimes**, won a doctoral fellowship from the Toulouse School of Graduate Studies and another graduate student, **Adriana Dinescu**, was awarded a travel grant by the American Society of Biochemistry and Molecular Biology to present her research in Boston.

**Dr. Jeff Kelber** attended the Electrochemical Deposition Conference in September in Kalispell, Montana, where he presented a seminar on recent research. He and **Dr. Oliver Chyan** attended the Semiconductor Research Corporation Program Review Aug. 22-24 in San Jose. Dr. Chyan recently obtained a \$150,000 2004-2007 grant and a \$30,000 2004-2005 grant from Semiconductor Research Corporation to study, respectively, "Study of Bimetallic Corrosion at Dissimilar Metal Interfaces with Nanometer Dimension" and "Corrosion Investigation in Dynamic Environments for the Next Generation Cu Interconnect Microstructure." He also received a \$150,000 2004-2007 grant from the Welch Foundation for "Interfacial Study of Metal Deposition on Metallic Oxide Surfaces."

**Dr. Paul Bagus** attended a conference at the Pacific Northwest Laboratory Aug. 4-7 to participate in discussions of XPS theory. At the Philadelphia ACS meeting he presented one of two keynote addresses at the Symposium on "Spectroscopy of Surfaces." At SWRM 2004 he presented two papers.

**Dr. Paul Braterman** and **Mickey Richardson** presented a paper at SWRM. **Dr. Michael Richmond** attended a Symposium on "Crystallography for Organic Chemists" Aug. 2-4, and he also presented a seminar at Eastern New Mexico University.

**UT-Arlington Professor Rasika Dias** has been selected as a Welch Lecturer for 2004-2005. Welch Lecturers are outstanding chemists who are chosen from a nation-wide pool to lecture at three educational institutions with the state of Texas. In August he visited several universities and research institutes in Sri Lanka to discuss joint research efforts, and he gave a seminar at the Post Graduate Research Institute in Kandy, Sri Lanka. In September he participated in the Third Echem Conference on "Nitrogen Ligands in Organometallic Chemistry and Homogeneous Catalysis," and he gave a seminar while there. His collaborative efforts with Italian research groups were reported in several Italian newspapers. At SWRM Dr. Dias gave an invited talk at the symposium honoring Professor Fackler. His group members **Dr. Shreeyuka Singh**, **Dr. Xiaoyu Wang**, **Himashinie Diyabalanage**, **Jose Thankamani**, and **Chammi Palehepitiya Gamage** gave five separate talks at SWRM related to new fluorinated ligands, boron-protected scorpionates, and luminescent materials. He presented results of a collaborative study with Dr. Tom Baker of Los Alamos at the Philadelphia ACS meeting.

**Professor Dennis Marynick** was an invited speaker at the Fritz Schaefer Symposium at the Philadelphia ACS meeting. He and graduate student **F. H. Yassin** also presented two other papers at the meeting. Dr. Marynick was also an invited speaker at the SWRM Sym-

posium on “Computational Chemistry.” He gave a talk on “Ionization Potentials of Matrix-Peptide Clusters in MALDI Mass Spectrometry.” Coauthors were **Gary Kinsel, Fatin H. Yassin, Jayakumar Narayanasamy, and Kaori Noto.**

**Dr. Krishnan (Raj) Rajeshwar** attended the International Society of Electrochemistry meeting in Thessaloniki, Greece, Sept. 19-22. He presented a keynote lecture there on “Novel Materials and Cathodic Processes” at the Symposium on “Environmental Electrochemistry,” and also chaired a symposium session. Raj attended the meeting of the Electrochemical Society in Honolulu on Oct. 3-8. At this meeting he presented a symposium paper on “Fundamental Science and Technology of Photofunctional Interfaces” and also chaired a session.

**Professor Gary Kinsel** presented a paper in Sept. on “Experimental and Computational Studies of Equilibrium Conditions in MALDI Plumes” at the Desorption 2004 Conference held in St. Petersburg, Russia. The Kinsel group presented five papers and posters at SWRM. Coauthors included **Z. Segu, Professor R. B. Timmons, S. Rawal, Dr. Mary Kinsel, G. Fernando, M. Li, L. van Waasberger, Dr. D. S. Marynick, F. H. Yassin, K. Noto, and J. Marayanasamy.** During September Dr. Kinsel gave seminars at UT-Dallas and Midwestern State University.

**Professor Martin Pomerantz** attended the Philadelphia ACS meeting, where he presented a paper on “Second Order NLO Applications Using Ionically Self-Assembled Polymer Thin Films.” Coauthors were **M. Zhou, T. A. Maldonado, G. Purvinis, N. Dallas, K. Le, A. Punyapu, P.S. Priambodo, and R. Magnusson.**

**Dr. Carl Lovely** and graduate student **Yong He** attended the Philadelphia ACS Meeting, where each gave a paper. Dr. Lovely organized the symposium “Strategies and Tactics in Organic Synthesis” at SWRM. The Lovely group gave three oral presentations and two posters at SWRM. Coauthors were **Vivek Badarinarayana, Christian Madu, Sivappa Rasapalli, Lesley Schmid, and Remond Moningka.** Dr. Lovely gave seminars at TCU in October and at UT-Austin in November.

**Dr. E. Thomas Strom** organized the symposium on “Perspectives in the History of Chemistry” at SWRM. He gave a paper at the symposium and chaired a session.

**UT-Dallas** Undergraduates **Sheel Dodani (Dr. John Sibert's Lab)** and **Amy Smith (Dr. Inga Musselman's Lab)** were awarded First and Second place certificates, respectfully, at the undergraduate poster session of the Southwest Regional ACS Meeting. **Kirtana Raja**, a Welch Foundation Summer Scholar who worked in **Dr. Sanjeev Manohar's Lab**, has made it to the National Semifinals of the Siemens

Westinghouse high school student competition.

## ISOFLAVONES "UNITE" TAMU-C AND TWU

by Mary Teasdale

The recent fall festival held in Commerce, aptly named the Bois d'Arc Bash, celebrates the Bois d'Arc apple. This round, green wrinkly fruit of the Bois d'Arc tree is pithy white on the inside and oozes a sticky sap. Despite its name, the fruit is not edible. But what is not good as a whole may still have beneficial parts. As it turns out the inside of the Bois d'Arc apple is a small chemical factory that produces high levels of isoflavones, a class of chemical compounds known to have a variety of biological activities believed to promote good health. For example, some isoflavones act like estrogen in the body, and as such, could be beneficial for alleviating postmenopausal symptoms without many of the negative effects of estrogen.

Dr. William Whaley of Texas A&M University-Commerce and Dr. Camelia Maier of Texas Woman's University are working together to investigate the estrogenic activities of isoflavones found in the *Maclura pomifera*. Elleni Zemenu and Pei Yang, both gradu-

ate students at Texas A&M University-Commerce, are examining biological activities of these compounds and measuring the levels of expression of enzymes that synthesize isoflavones in *Maclura pomifera*. Dr. Richard A. Dixon (The Samuel R. Noble Foundation) is also collaborating in this study aimed at defining how *Maclura pomifera* produces such high levels of isoflavones. This study may be valuable for genetically engineering other plants to efficiently produce isoflavones on an industrial scale.

## DECEMBER METROPLEX SEMINAR SCHEDULE

*These dates and times are accurate as of the time of writing. However, seminars are occasionally cancelled or postponed. Check departmental websites for the most up-to-date information.*

**UT-Arlington. Dec. 3**, Harry W. Gibson, "Pseudorotaxanes Self-Assembled from Molecular and Macromolecular Building Blocks."

**UT-Southwestern**  
**Biochemistry. Dec. 2**, Deborah Wuttke, University of Colorado, "Typing up the Ends: Recognition of Single-Stranded DNA at Telomeres."  
**Dec. 9**, Tom Rapoport, Harvard Medical School, "Structure and Function of a Protein-Conducting Channel."  
**Dec. 16**, Richard Eisenstein, University of Wisconsin, TBA.

**UT-Southwestern Biological  
Chemistry. Dec. 7,** Thomas Pettus,  
TBA.

# **D-FW Section's Upcoming Meetings**

## **DECEMBER 2004 MEETING**

**The DFW Section will not meet in December 2004.** The normal December meeting features the Schulz winner, but Paul Price was honored in November. In view of everyone's usual crowded December calendar, it seemed better to forgo the December meeting.

## **JANUARY 2005 MEETING**

**The next scheduled meeting is January 2005.** The date for the January meeting is January 18, and it will be a joint meeting with the American Institute of Chemical Engineers (AIChE) at a location yet to be determined.

## **FEBRUARY 2005 MEETING**

**TBA.** The February meeting will be our biennial "Salutes to Excellence" with date and location yet to be determined.

