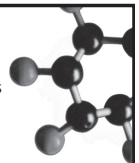

****Continued from Page 10****

Johnson Bldg.

UNT. April 11, Nigel Shepherd, UNT Material Science, TBA. **April 25**, Angela Wilson, UNT, "Barriers and Pathways to Quantitative Modeling." **May 2**, Travis Williams, USC, "New Reactions for C-H Functitonalization in Organic Synthesis." Seminars are normally at 3:30 p.m. in Room 106, Chemistry Bldg.

TCU. April 15, Angela Wilson, UNT, TBA. **April 22**, Paul Cremer, Texas A&M, TBA. **April 29**, Vladimir Birman, Washington University of St. Louis, TBA. Seminars are normally at 11 a.m. in Lecture Hall 4, Sid Richardson Science Bldg.

SMU. April 14, (Time to be Announced), Patrick Theato, University of Mainz, "Reactive Polymers: A Synthetic Toolbox to Prepare Functional and Smart Materials." **April 18**, Ann Richards, TCU, "Coordination Polymers and Low Coordination Group 15, 16 Chemistry." Seminars are normally at 2 p.m. in Room 152, Fondren Science Bldg.

UT-Southwestern Biochemistry. April 17, Daniel Herschlag, Stanford, "How Enzymes Work: Dissecting Transition State Complementarity in Enzyme Active Sites." **April 24**, Bob Poyton, University of Colorado at Boulder, "Mitochondrial-Nuclear Interactions in O_2 Sensing and Hypoxic Signaling." **May 1**, Hartmut Luecke, UC-Irvine, TBA. Seminars are normally at 12 noon, Biochemistry Lecture Hall L4.176.

UT-Southwestern Biological Chemistry. April 15, Julia Kubanek, Georgia Tech, TBA. **April 29**, Mohammad Movassaghi, MIT, TBA. Seminars are normally at 6 p.m., biochemistry Library L4.162.

APRIL D-FW ACS MEETING
THE 41ST ANNUAL MEETING-IN-MINIATURE
SATURDAY, APRIL 19
SOUTHERN METHODIST UNIVERSITY

Fondren Science Building
Dallas, TX

Student Research Presentations, 9 a.m. to 5 p.m.

Link for Information on Meeting-in-Miniature
http://smu.edu/chemistry/MIM/

HOUSTON'S XAOLIAN GAO 2007 ACS SOUTHWEST REGIONAL AWARD WINNER p. 5

Southwest Retort
March 2008

TABLE OF CONTENTS

INDEX OF ADVERTISERS

PERIODICAL

FIFTY YEARS AGO IN THE SOUTHWEST RETORT

The March issue featured an article by **R. A. Fink** on the new nuclear accelerator in the chemistry department at the University of Arkansas. The instrument is a 400 KV Cockroft-Walton Positive Ion Accelerator. Among the research programs underway are precision measurements of fast neutron activation cross-sections and a systematic search for unknown nuclides produced by irradiating enriched stable isotopes with high energy neutrons.

The March ACS tour speaker is **Professor William Riemen, III** of Rutgers University. On his tour he will speak from the following titles: "Ion Exchange, A New Tool for the Analytical Chemist"; "Chromatography with Ion Exchange Resins"; and "Salting-Out Chromatography."

Dr. V. A. Kalichevsky, winner of the 1955 ACS Southwest Regional Award and a former candidate for ACS President, died Feb. 3 in a hospital in Beaumont. He was a consulting engineer for Magnolia Petroleum Co. (*Mobil's precursor company in the Southwest*). Kalichevsky was a native of Tiflis, Russia. He had fought with the White Russian army after the Russian revolution and then fled the country, making his way to the US through Asia.. He was a graduate of Cal Tech, had 16 patents, and was the author of five books on the petroleum industry.

The Southeastern Texas ACS Section (*greater Houston*) now has a membership of 1277. The increase of 106 members for 1957 was the sixth highest in the nation. The gain places the section as 12th in the country and ahead of both Detroit and Cleveland in the Plus 1000 Club! In the Southeastern section, **J. L. McAtee, Jr.** of Baroid reports that **Dr. Ray Slovensky** and **Martin Anderson** have joined that company. **R. B. Williams** of Humble Oil presented a paper at the Institute of Petroleum meeting in London on the topic "Nuclear Magnetic Resonance in Petroleum Analytical Research." Shell Oil recently occupied its new office and laboratory building.

Dr. Otto K. Basedow has recently joined the Texas A&M chemistry department to work with **Dr. A. F. Isbell.** Dr. Isbell, **Dr. R. A. Zingaro**, and **Mr. J. K. Beal** attended the ceremonies dedicating the new science building at Texas Southern University.

From Baylor **Dr. A. G. Pinkus** reports that President W. R. White notified the faculty that the trustees had approved a one and one half million dollar physical science building. The building will be named in honor of the late **Mars McLean**, San Antonio oil magnate.

The University of Arkansas chemistry department has acquired a Perkin-Elmer Model 21 Infrared Spectrophotometer. Costs were borne jointly by NSF and the university. **Dr. Jacob Sacks** will give a course in Spanish this summer in radioisotope techniques and applications at the Escuela Politecnica Nacional in Quito, Ecuador.

4-5. The speaker was Nobel Laureate **Robert H. Grubbs** from Cal Tech. He gave a public lecture on "From Fundamental Research to Applications: The Olefin Metathesis Reaction" and a technical lecture on "The Design and Synthesis of New Olefin Metathesis Catalysts."

Dr. Edward Quitevis attended the McGraw-Hill General Chemistry symposium Feb. 7-10 in Tucson, AZ. On Feb. 12 he gave a seminar on "Physical Chemistry of Ionic Liquids" at UT-Pan American.

Dallas-Fort Worth

March Meeting. A good sized group of around 40 people attended the March 12 meeting at Alcon Labs in Fort Worth. Two different student affiliate groups won prizes for attendance. The first prize for student attendance went to Biship Lynch High School. The second prize was awarded jointly to Tarleton State and Texas Wesleyan. Speaker **E. Gerald Meyer** gave a stimulating and provocative talk. He got things off in an interesting manner when he asked what country was the second leading user of energy. Most people would have guessed China. The correct answer is the US. China passed the US in energy consumption about six months ago. He then asked what three geographic locations were the leading suppliers of energy for the US (note that is energy, not petroleum). The answers in order are Wyoming, Canada, and Mexico. He went into the pluses and minuses of various kinds of energy and proposed that there needed to be more use made of nuclear energy and more efforts made to refine coal in a manner similar to the refining of petroleum.

UT-Arlington. Dr. Carl Lovely will be promoted to full professor this fall pending pro forma approval by the UT Board of Regents. Carl was born in Macclesfield, England but raised in Burton-on-Trent. He received both his undergraduate and Ph.D. degrees from the University of Birmingham. He did a postdoc at the University of Heidelberg in 1991 and postdocs with Paquette and then Brueggemeir at Ohio State from 1992-96. He joined the UT-Arlington faculty in 1996. His areas of research are natural products and heterocyclic chemistry. He is a grantee of both the Welch Foundation and NIH. His wife Lesley is an expert in diabetes treatment. Their children are daughter Gwen, age 7, and son Aiden, age 5. Mostly his work is his hobby, but he does have an interest in American college football, generated by his time at Ohio State.

UT-Dallas. Profs. **Steve Nielsen, John Ferraris,** and **Dean Sherry** presented seminars at the CONACyT Center for Mathematical Research in Guanajuato, Mexico. Graduate student **Matthew Wallack** from **Paul Pantano's** lab was awarded 2nd place for an outstanding poster presentation at the 2008 UT MetroPlex Day.

Texas Christian University. Graduate student **Mauricio Quiroz** in **Tracy Hanna's** group presented an invited talk at the Universidad de las Americas in February.

Long Beach, CA. **Frank Millet** gave an invited lecture. Others attending were faculty **Lois Geren, Denise Greathouse, Suresh Kumar,** graduate student **Nick Gleason**, and undergraduate **Trish Tran**. Posters were given by faculty **Paul Adams, Dan Davis, Roger Koeppe, Anna Daily**; postdocs **Rajalingam Dakshinamurthy, Anna Daily, Huimin Liu, Kathir Karuppanan, Leena Philominathan**; graduate students **Koteshwara Ananthamurthy, Anne Froyd-Rankenberg, Jeff Havens, Chris Mazzanti, Nicole Richardson, Lindsay Rutherford, Ryan Thurman, Vitaly Vostrikov, Nicole Webb, Quan Yuan**; and undergraduates **Natalie Anderson, Eric Flagg, Rachel Ellis, Khalil Ibrahim,** and **Nicole McClellan.**

Students receiving State Undergraduate Research Fellowships were **Britton Blough, Whitney Gammill, Nicole McClellan, Olena Pickett, Richael Thomas**, and **Blake Williams.** In Fall, 2007 61 undergraduate chemistry majors made the Fulbright College Dean's list. Graduate student **Vitaly Vostrikov** presented a poster in January at the US-Canada Winter School on Biomolecular Solid State NMR in Stowe, VT. New graduate students are **Randy Francisco Espinal Cabrera** and **Chris Rupar**. **Hong Gu** defended her doctoral dissertation and will go on to be a post-doc at Case Western Reserve University.

East Texas

The speaker at the Mar. 11 meeting at Ana-Lab in Kilgore was **Dr. E. Gerald Meyer** whose topic was "Energy for the 21st Century." The next meeting will be held April 16 at East Texas Baptist University in Marshall. The speaker will be **Wayne Jones** whose lecture is "How Small Can You Go? Molecular Wires and Devices in the Modern World."

Kudos go to three student affiliate chapters from East Texas, who will be honored for the 2007 activities at the ACS National Meeting in New Orleans April 6. The Northeast Community College Chemistry Club has been named an Outstanding Chapter, while the Texarkana College and UT-Tyler chapters have been named Commendable Chapters

Wichita Falls-Duncan

There were 113 attendees at the Pentasectional Meeting held Mar. 8 at the Halliburton Energy Center in Duncan. The 2008 Oklahoma Chemist is **Dr. Joe Allison** of Conoco Phillips in Ponca City, OK. (*Look for a profile of Dr. Allison in a later* Retort.) Halliburton gave out $100 awards for the two best undergraduate posters and the two best graduate posters.

The March section meeting was held Mar. 13 at Cameron University. **Dr. E. Gerald Meyer** spoke on "Energy for the 21st Century."

South Plains

Texas Tech University. The University hosted the 8th Annual Henry J. Shine Lecture Series Mar.

Southwest Retort

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Around-the-Area

Heart o´ Texas

Baylor University. **Dr. A. G. Pinkus** has been moved to a care center in Irving, TX. His many friends hope for continued improvement in his condition. **Dr. Bob Kane** is recovering from a broken leg suffered in a motorcycle race in Tyler.

Dr. Sang Gon Kim has joined **Dr. Sung-Kun Kim's** group as postdoctoral fellow. He comes from Gyeongsang National University in Jinju, South Korea. **Dr. Tracy Edward Strecker** is a new postdoc in **Dr. Mary Lynn Travick's** group. Recent M.S. graduate **Abhishek Dogra** has been appointed part-time laboratory coordinator in organic chemistry. New graduate students are **Lemas Mitchell, Bikram Subedi,** and **Nelson van der Velde**.

The following faculty and staff members have received service pins: 5 years, **Dr. Andreas Franken, Dr. Riz Kalusmeyer, Mrs. Virginia Hynek**; 20 years, **Mrs. Bernice Helpert**; 25 years, **Dr. Alton Hassell, Dr. James Karban, Mr. Milton Luedke** (posthumously); 30 years, **Dr. Marianna Busch**; 35 years, **Mrs. Nancy Johnson**; 40 years, **Dr. David Pennington**.

Dr. Pennington along with **Mrs. Nancy Johnson**, **Mrs. Linda Haynes,** and **Dr. Mark Taylor,** attended the 39th Annual TAAHP meeting in Houston. Dr. Pennington moderated the Health Professions Update on Podiatry and completed his term on the Executive Board of TAAHP as a Member-at-Large. The Center for Drug Discovery, co-founded by **Drs. Bob Kane** and **Kevin Pinney**, held its 6th Student Research Symposium on Feb. 29. Poster awards went to **Scott Morgan, Hillary Blakeley, Renjie Chair, Lee Tran,** and **Laura J. Miller.**

The Gooch-Stephens Lecturer was **Professor Sir J. Fraser Stoddart** of Northwestern University. On Mar. 6 he spoke on "Mingling Art with Science," while his Mar. 7 talk was on "Chemistry and Molecular Nanotechnology in Tomorrow's World."

Dr. Alton Hassell made two ACS speaking tours: in Washington, Oregon, and in Tennessee, and Kentucky. His topics were "A Chemist Wanders into Archaeology," "Using Nuclear Chemistry to Study Antique Watermarks," and "Chemistry Appreciation 100: Chemistry for the Liberal Arts Student."

Colloquium Speaker: **Erich Baker**, Baylor Computer Science/ Bioinformatics.

University of Arkansas

Bob Gawley gave a public lecture on Feb. 20 on "Why did Alice Say to Kitty 'Perhaps Looking-Glass Milk Isn't Good to Drink?'. A Brief Explanation of Handedness, From Weak Bosons to the Double Helix."

The department was well represented at the 52nd Annual Biophysical Society Meeting held in Feb. in

Fortunately, analytical chemistry came to the rescue. Organic poisons such as strychnine decompose over time. Not so with metals which can be readily analyzed for in body tissues even after a body has been buried for a very long time or even cremated. Thus, if someone died under suspicious circumstances, their remains could now be tested for the presence of any unusual metals. As a result, murder using poisonous metals became much more risky.

You have probably heard that the fall of the Roman Empire was due to lead poisoning caused from the use of lead pipes for plumbing. Emsley confirms that it does appear that lead was the cause of the surprisingly low Roman birth rate. In fact, we can analyze the bones of Roman citizens today and still find unusually high levels of lead. However, although lead plumbing was used and did contribute to the high lead levels, this was not its main source. The main source of lead was a commonly used Roman sweetener! Pliny describes the production of a substance called Sapa. Wine was boiled down in lead pans and cooled until crystals formed. These sweet tasting crystals were composed of lead acetate, also known as "sugar of lead." The Sapa obtained from this process was widely used by the Romans as a preservative for wine and as a general all purpose sweetener in cooking (sugar was unknown).

Interestingly, metals that are ingested tend to concentrate in a person's hair. These low metal levels can be readily measured using a very sensitive analytical technique called neutron activation analysis. Add this to the fact that historically it was fashionable to take samples of a person's hair upon their death as a keepsake, and you have the makings of several interesting stories. For example, take the case of Isaac Newton. Besides being a brilliant physicist and mathematician, he was also interested in alchemy. Now give him a break. Chemistry as a science was still very young, and Newton probably thought that turning lead into gold could really be done, but the secret had just been lost. One of the main materials used in alchemy is mercury. Various substances are heated in it; then the mercury is distilled off (usually in an open laboratory) to see what is left. As luck would have it, samples of Newton's hair had been preserved at Trinity College Cambridge. When analyzed by neutron activation analysis, mercury levels were fifteen times normal. A clear case of chronic mercury poisoning.

In addition, there's also good evidence that Napoleon Bonaparte may have died of arsenic poisoning; King Charles II may have died of mercury poisoning; Mozart may have died of antimony poisoning; Beethoven, King George III, and Pope Clement II may have died of lead poisoning; and that thallium sulphate was Saddam Hussein's favorite poison. However, I am out of space, and you're just going to have to read these fascinating stories for yourself.

Southwest Retort

SIXTIETH YEAR MARCH 2008

HOUSTON'S XAOLIAN GAO 2007 ACS SW REGIONAL AWARD WINNER

by E. Thomas Strom

In the nearly 60-year history of the ACS Southwest Regional Award, there have been very few women awardees. After the award was instituted in 1948, only men were selected until Ruth Benerito of the USDA Southern Regional Laboratory in New Orleans broke the string in 1972. The next woman honored was Marye Anne Fox, then at UT-Austin, in 1993 followed by 1998 winner Marcetta Darensburg of Texas A&M. In 2007 the ladies have finally scored again with biochemist Xaolian Gao of the University of Houston being selected. What the women may have lacked in quantity, they have made up for in quality, and winner Gao illustrates this quality to the highest degree.

Dr. Xiaolian Gao is currently Professor of Biology & Biochemistry at the University of Houston with adjunct appointments as Professor of Chemistry and of Biomedical Engineering at Houston. She is also Director of the Keck/IMD NMR Center at the University of Houston. She and her coauthors have published 80+ publications in the area of biochemistry. Since she joined the University of Houston, she has received over six million dollars in extramural funding, and she presently holds multiple research grants from NIH and the Welch Foundation. Her initial appointment was in chemistry, and she taught a wide variety of courses including

organic chemistry, fundamental biochemistry, physical organic chemistry, organic structure determination, genomics and proteomics, bioorganic chemistry, chemical biology, and biomolecular NMR.

Dr. Gao's accomplishments have not gone unnoticed. She is the winner of the Greater Houston ACS Sectional Award in 2006, the YWCA Outstanding Science and Technology Award in 2006, the Sigma Xi Faculty Research Award of the University of Houston in 2006, the AWC Award for Leadership in Technology---the Top Houston Women in Computing in 2006, the Research Excellence Award from the University of Houston in 1996, and the Junior Faculty Award from the American Cancer Society in 1994.

Dr. Gao has made significant advances in a variety of areas. She has strengths not only in NMR spectroscopy but also in novel synthetic methods, particularly in nucleic acid chemistry. She has worked on characterizing the structure of single-stranded DNA, solved the structure of a number of antitumor-DNA complexes, and contributed significantly to the understanding of structures and dynamics of antisense RNA-DNA hybrid duplexes. She has made seminal contributions to the development of novel chemistry for highly parallel syntheses using digital photolithography on miniaturized microfluidic synthesis devices. It's rare in academia that a scientist moves his/her research into something practical. Since 1998 Dr. Gao has co-founded three companies developing leading edge biotechnology products. She has six patents with more pending.

Xiaolian Gao was born in China to a father who was an engineer and a mother who was a scientist. Her natural inclination as a youngster was toward science. She was interested in how you could get some idea of the pending weather through observing clouds. It appeared that she had a straightforward path to a scientific career. However, just as she completed middle school, the Chinese Cultural Revolution occurred with fallout that markedly slowed her progress.

It is impossible to describe the Chinese Cultural Revolution in just a few short paragraphs, but let me hit some of the "highlights." Prior to 1966, Chinese leader Mao Zedong was on the verge of being shunted aside after the failure of "the great leap forward." Mao determined that it was necessary to continue the revolutionary class struggle, and he returned to power with a vengeance, aided by youthful revolutionaries known as "Red Guards." Mao felt that the Communist Central Committee had lost its zeal for socialism. Pragmatists such as Deng Xiaoping were pushed aside. The student movement worked to destroy old ideas, cultures, customs, and habits. The Cultural Revolution lasted approximately from 1966-76. The death of Mao part way through did not change things, as the "Gang of Four," which included Mao's widow, kept things in turmoil.

How did this uproar impact education? Let me quote *Wikipedia*. "Elsewhere, the ten years of the Cultural Revolution also brought the

THE CHEMIST'S BOOKSHELF

Reviewed by Dr. Danny Dunn, Alcon Labs

***The Elements of Murder: A History of Poison*.** Author John Emsley, Oxford University Press, 2005, 421 pages, ISBN 0-19-280599-1.

Be warned! When you start reading this book, you're going to be tempted to stay up late and squeeze in just one more chapter. It's a book about the metallic elements, their toxic effects, stories of accidental poisonings, and their deliberate use as murder weapons.

John Emsley spent 20 years as a chemistry researcher and lecturer at London University and is now at the University of Cambridge. Author of a series of popular science books, he was awarded the Rhone-Poulenc Science Book Prize in 1995, and the German Chemical Society's Writer's Award in 2003.

There are major chapters on mercury, arsenic, antimony, lead, and thallium. There is also a final "other" poisonous metals chapter. Emsley's research for this book is very thorough and includes just about every famous case of metal poisoning that has been recorded. For example, perhaps you remember in 1994 when 16-year old Marie Robards stole some barium acetate from the Mansfield High School chemistry laboratory and used it to murder her father. She was subsequently brought to trial, convicted, and sentenced to 28 years in jail. This incident is discussed in the final chapter of the book and is apparently one of the few cases where barium was used to commit murder.

Each of the major chapters follows the same template. Emsley first discusses common uses for the metal (e.g., mercury amalgam fillings for teeth or tetraethyl lead in gasoline), the metal's presence in the environment, and how the human body attempts to rid itself of the metal. These are usually poisonings due to environmental contamination such as the mercury pollution in Japan's Minamata Bay that tragically resulted in the deaths of over 3,000 people, or the poisoning of children by exposure to lead-based paints. Finally, the stories of murder begin.

Let's face it, poison was a perfect murder weapon before the 1800's. Medical science was not very advanced, and people died frequently of poorly defined illnesses that exhibited vomiting, diarrhea, and stomach pains. More often than not, food poisoning or a viral infection was thought to be the cause. Some of the murders Emsley discusses are quite amazing. For example, Dr. William Palmer (1824-1856) would buy a life insurance policy for his victims without their knowledge, poison them with antimony, and collect the insurance. He was finally caught and hanged. Parliament quickly passed the Palmer's Act, a law making it impossible to take out an insurance policy on someone else's life without a good reason. Palmer obtained such notoriety as a murderer that his work has been on exhibit in the Chamber of Horrors at Madame Tussaud's in London for over 127 years.

Dear Professor Brough:

Mathematical models are very complex efforts to convert physical reality to a series of mathematical equations. Necessary parts of these efforts are approximations and assumptions to make the calculations simple enough to be solved. I became interested in the process when I was part of an industrial research group. An accepted model had a flaw in one of the fundamental assumptions. I uncovered this and had some very interesting experiences. Since then, I have become interested in the processes by which mathematical models are developed.

I have traced the processes from which the several climate models were developed. You have not challenged my descriptions of these processes. I cited evaluations of the climate models provided by the UN Intergovernmental Panel on Climate Change (IPCC) and the National Oceanic and Atmospheric Administration (NOAA). These bodies believe in global warming. IPCC and Al Gore shared the Nobel Peace Prize for their work on global warming effects.

If two effects are moving in the same direction, it does not necessarily follow that they are interrelated. For example:

Undisputed fact: More ice cream is eaten in the summer than in the winter.

Undisputed fact: More people drown in the summer than in the winter.

Conclusion (?): Eating ice cream is linked to drowning.

As chemists, you and I have been taught that extrapolations beyond your data are risky. ANY attempt to predict the future is an extrapolation and is inherently uncertain. We need to respect this.

Dr. John Spessard, Environmental & Chemical Technology, Dallas, TX

APRIL METROPLEX SEMINAR SCHEDULE

Seminars are occasionally postponed or cancelled. Call the department of check departmental websites before attending.

UT-Arlington. April 11, Hriday Das, UNT Health Science Center, "Inhibition of PS1 Transcription is a Compelling Strategy to Reduce γ-Secretase Activity." **April 18**, Chuck Henry, Colorado State University, "A Small Solution to a Big Problem: Environmental Monitoring using Microchip Electrophoresis." **April 25**, Vijay Ramani, Illinois Institute of Technology, "Degradation Processes and Degradation Mitigation Strategies in Polymer Electrolyte Fuel Cells." **May 2**, Sergei Dzyuba, TCU, "Bioorganic Studies on Amyloid Peptides---en Route to Understanding the Complexity of Alzheimer's Disease." Seminars are normally at 2:30 p.m. in Room 114, Baker Chemical Research Bldg.

UT-Dallas. April 15, Graeme Henkelman, UT-Austin, "Theory of Chemical Reaction Rates." **April 22**, Emily A. Carter, Princeton, "Quantum Chemistry." Seminars are normmally at 3:30 p.m. in Room JO 3.516

******Continued on Page16******

education system to a virtual halt. University entrance exams were cancelled during this period, only to be restored by Deng Xiao-ping in 1977. Many intellectuals were sent to rural labor camps. Many survivors and observers suggest that almost anyone with skills over that of the average person was made the target of political "struggle" in some way."

The result was that Gao was set to work in a textile factory as a tailor for nine years. She kept learning on her own, was essentially homeschooled, so she was ready when Deng restored university entrance exams. She did well enough for admission, but the younger cohort was favored for university admission. She did get in via a second round of examinations and went to the Beijing Institute of Chemical Engineering at age 23. She received a B.S. in polymer science in 1982. Her final semester she did research on ionic polymerization of butadiene.

Deng allowed Chinese students to go overseas. Gao's uncle worked for DuPont in Philadelphia. He sent her a stack of applications, and she wound up at Rutgers, where she received her Ph.D. under Roger Jones in 1986. She then did a postdoc for three years with Dinshaw Patel at the College of Physicians and Surgeons at Columbia. After two years in industry with Glaxo, she joined the chemistry faculty at the University of Houston.

Dr. Gao's husband is Dr. Xiaochuan Zhou. He holds a Ph.D. in chemical engineering from the University of Michigan and is President and CTP of Atactic Technologies in Houston. Dr. Gao used to like ice skating, and she likes to be outdoors. She and her husband like taking long car trips to scenic locations.

Clearly, Xiaolian Gao has made up for her late start in science. I can't help thinking that there may have been other potential scientists caught up in the Cultural Revolution who were just as intellectually gifted as she, but didn't have her drive and were consequently lost to science. Still, let's rejoice that a gifted biochemist such as Xiaolian Gao is here with us in the US with many more of her discoveries to come.

Author's Afterword: *I thank Dr. Karl Kadish of the University of Houston for useful background material and Dr. Xiaolian Gao herself for a long, helpful telephone interview.*

CHEM GEMS & JOULES

by Jane Smith, Frisco Centennial High School

Joy Hakim has written a ten book series, *The History of US*, for a middle school audience, but the books are also fascinating for adults. Now she has embarked on a six volume series entitled *The Story of Science*. Currently she has released the first three volumes: *Aristotle Leads the Way; Newton at the Center; Einstein Adds a New Dimension*. From her website, http://www.joyhakim.com/science/html we read. "If you think science is difficult, these books are meant for you. They focus on the quest to understand the universe, from Thales to today's cosmology. Reading them you'll meet Pythagoras (a great mind, but a strange man), Archimedes (he could do everything). Isaac Newton (not very likeable), James Clerk Maxwell (a shy Scotsman who did the math that led to the electromagnetic revolution), and Einstein (who not only brought us relativity, but confirmed the atom and laid the foundation for quantum theory). Quantum theory? Relativity? What are they? Read these books and you'll find out."

If you're interested in providing some outside reading for your students, looking for presents for kids and grandkids, or just want to brush up on some scientific history, then here's a painless avenue. Get a taste by downloading "The Story of the Atom" at http://www/aft/org/pubs-reports/american_educator/issues/spring02/index.htm or "Fantastic Journey: How Scientists Figured Out the Shape and Size of the Earth" at http://www/aft/org/pubs-reports/american_educator/issues/fall04/index.htm

Remember the ACT2 Biennial Conference. This valuable meeting for chemistry teachers will be held Aug. 3-7 at Robert E. Lee High School in Tyler with housing at Camp Tyler on Lake Tyler with alternate housing possible in town. Mark that date on your calendar and make plans to attend. For registration and information, check out http://www.statweb.org/ACT2.

*Send material for this column to Mary Teasdale at owlcritic75@yahoo.com or to Tom Strom at tomstrom@juno.*com

Retort by US Mail and Online

After a brief interval at the end of 2007 when The Southwest Retort was delivered in a timely fashion, the U.S. postal service has reverted to its bad old ways. Deliveries to Dallas have taken up to two weeks, and service often is quicker to outlying areas such as Arlington than to Dallas.

Our readers should remember that the magazine is also available online. The meeting notice for the next month is posted separately as soon as the host institution has given its OK to the meeting notice. The magazine is posted online as soon as approval is given to the final proof from our printers Minuteman Press. The url for the website is always listed on page 3 of our magazine. Because of these ongoing postal problems, with the assistance of Sean O'Brien a reminder e-mail notice has been sent in recent months. Even in those rare instances when the postal service delivers our magazine in a timely fashion, the e-mail notices are useful reminders to keep our readers from forgetting the meeting date and site.

Letters to the Editor

Dear Editor:

Recently when sorting through material suitable for my recycling bin I came across an issue of *The Retort* several months old. It contained a misleading, inaccurate, and ultimately rather silly article on global warming. Is that the best you can do? Remove my name from your mailing list. Anthropogenic global warming is an inconvenient fact.

Lawrence F. Brough, Ph.D., Professor of Chemistry, Northeast Texas Community College, Mount Pleasant, TX.

Editor's Note: *I requested permission from Dr. Brough to publish his letter. I received further correspondence from him which he also gave me permission to publish. That letter, edited only to remove one sentence not germane, follows.*

Dear Editor:

I am not surprised that there has been no previous response to the Spessard article. You will notice that my comment was quite brief. Global warming has been debated for some time now, and people do need to budget their time.

Feel free to publish my previous letter along with this one. Since I will no longer be receiving *The Retort*, I will, of course, be unable to reply to any response. It is questionable that I would want to in any case, for the reason given above.

The coupling between CO_2 levels and temperature is obvious. Although useful and improving rapidly, predictive weather models have their limitations as anyone who depends on TV weathermen can attest. It now appears that many models have been too conservative regarding predicted temperature increases and corresponding effects. Fortunately, or perhaps the opposite, those effects are now manifest. For example, shrinkage of Arctic and Antarctic ice, glacial retreat, and dislocation of "canary" species.

Thank you for your prompt reply.

Editor's Comment: *Of course, Dr. John Spessard was given an opportunity to reply to Dr. Brough's two letters. His response follows.*