



ALI "QUOTES"

Volume 13, Issue 2

THE NEWSLETTER OF THE PRINCETON ACS

March/April 2003

Chairman's Corner

Fiona Case

Colgate-Palmolive

Welcome to the March/April edition of AliQuotes. We have made a great start to the year. At our January meeting we heard an interesting talk about methods for studying diffusion in amorphous materials, particularly food, from Richard Ludescher (Department of Food Science, Rutgers University). On January 11-12 Princeton Section members (lead by Kitty Wagner) participated in our first outreach event of the year – two days of hands-on chemistry demonstrations for children at the New Jersey State Museum "Super Science Weekend".

In February we held our annual awards dinner, a glittering occasion honoring 50-year ACS members in the Princeton area and celebrating the 75th anniversary of our local section (more about this later). Our guest speaker, David Brock, gave a fascinating talk entitled "Revolutionary Tools: Instruments and the Transformation of the Chemical Sciences" based on a current exhibit at the Chemical Heritage Foundation (highly recommended – for details about visiting the CHF see their web site at www.chemicalheritage.org). Also in February one of your Councilors, Barbara Lences, and I participated in two days of ACS Leadership Training in Washington DC. It was a valuable weekend. I was not aware of the wide range

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INSERT MARM INFO/APRIL MEETING NOTES

VISIT OUR WEBSITE: <http://www.princeton.edu/~pacs>

March Meeting

Tour: Princeton Plasma Physics Laboratory

Princeton, NJ

<http://www.pppl.gov>

Date: Thursday, March 13, 2003

Meet at 6 PM

Dinner immediately after tour
Princeton Plasma Physics Laboratory

Please arrive at 5:45 to start the tour at 6:00. The tour will be followed by dinner at PPPL.

All visitors to PPPL must show a government-issued photo I.D. Reservations are **necessary** by the 6th of March – please contact Denise D'Auria (denised@princeton.edu) at (609) 258-5202.

PPPL is a collaborative national center for fusion energy and plasma physics research managed by Princeton University for the US Department of Energy. Magnetic fusion research at Princeton began in 1951 under the code name Project Matterhorn. Lyman Spitzer, Jr., Professor of Astronomy at Princeton University, had been involved in the study of very hot rarefied gases in interstellar space. Inspired by the fascinating but highly exaggerated claims of fusion researchers in Argentina, Professor Spitzer conceived of a plasma being confined in a figure-eight-shaped tube by an externally generated magnetic field. He called this concept the "stellarator," and took this design before the Atomic Energy Commission in Washington. The stellarator proposal was funded and Princeton University's controlled fusion effort was born. In 1958, magnetic fusion research was declassified allowing all nations to share their results openly.

For the past three decades, PPPL has been a leader in magnetic confinement experiments utilizing the tokamak approach. This work culminated in the world-record performance of the Tokamak Fusion Test Reactor (TFTR), which operated at PPPL from 1982 to 1997. Beginning in 1993, TFTR was the first in the world to use 50/50 mixtures of deuterium-tritium, yielding an unprecedented 10.7 million watts of fusion power.

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50 Year Members to the Princeton ACS Section



From left to right, our guest speaker - David Brock from the Chemical Heritage Foundation, Professor Jacques Robert Fresco, Dr Ludwig Rebenfeld. Professor George McLendon (Chair Princeton University Chemistry Department), Fiona Case, Dr. William Barnard, Mr. Franklin Schoenberg, Dr. Charles Muldrow, Dr Lincoln Ekstrom. More pictures of the awards ceremony are available at our web site.

Honorees in attendance:

Professor Jacques Robert Fresco
Dr Ludwig Rebenfeld
Dr. William Barnard
Mr. Franklin Schoenberg
Dr. Charles Muldrow
Dr Lincoln Ekstrom

Not able to attend:

Dr. Sanford M. Aronovic
Dr. Philip A. Cruickshank
Dr. Timothy V. Peters
Mr. Joseph C. Wasilewski
Mr. Clifford A. Erickson[∞]

[∞] We were saddened to hear of Mr. Clifford A. Erickson's death in November 2002. His obituary notice is posted on the bulletin board at our web site, <http://www.princeton.edu/~pacs>

of activities carried out by our society – from education to public policy. However, the highlight for me came during a lecture on Local Section Websites. I was sitting in an audience of more than 100 chairs and chair-elects from all over the USA when suddenly our Princeton Local Section web site appeared on the screen as the lecturer highlighted particularly good examples of web site design (congratulations to Jonathan Chun – visit our site at www.princeton.edu/~pacs).

The next two months promise to be equally exciting. On March 13th we will be touring the Princeton Plasma Physics Laboratory (PPPL) followed by dinner at PPPL. We particularly invite younger ACS members, graduate students and ACS undergraduate student affiliates to this event. Several of your committee members will be attending the ACS National Meeting in New Orleans 23-27 March. We may hold an informal Princeton Local Section get-together at one of the restaurants or bars. Please contact me if you are attending the meeting and would like to join us. On April 16 our guest speaker is Chris Miller from Wyeth Research who will be telling us about “The Chemistry of Womens’ Health: Selective Estrogen Receptor Modulators” It promises to be an interesting and informative event.

There is an addition to our schedule for the year – On Monday June 9th we will be sponsoring a special careers event along with the Trenton Local Section MARM Committee and ACS Careers Services. Afternoon sessions will focus on information and skills training for students and post-docs starting out in the chemistry careers. The evening event will be aimed at those who want, or need, to change jobs later in their careers. ☐

Remembering our History

Fiona Case

Colgate-Palmolive

This year is the 75th Anniversary of the ACS Princeton Local Section. Our section was founded on April 25, 1927. The founding document can be seen on our web site (www.princeton.edu/~pacs). To mark the end of this historic year, we hope to feature our members sharing their memories of this group in the next edition of *Ali”Quotes”*. If you have a story you would be willing share with us, please forward it to the *Ali”Quotes”* editor: Danielle Crammer, danielle.crammer@firmenich.com before April 15th. We look forward to your contributions. ☐

PPPL researchers are now leading work on an advanced fusion device -- the National Spherical Torus Experiment -- and are developing other innovated concepts. Staff are applying knowledge gained in fusion research to a number of theoretical and experimental areas including materials science, solar physics, chemistry, and manufacturing.

This is a particularly interesting time to visit PPPL as Secretary of Energy Abraham recently announced that U.S. is going to rejoin the United Kingdom and other European nations, China, Russia, Japan and Canada on the ITER International Fusion Project. More information is available at www.pppl.gov ☐

Chemagination Contest

Sharon Sibilia

Chemagination is a science essay and poster contest for 9 – 12 grade chemistry students. Students address the question, “What breakthrough or innovation in the field of chemistry will be important in the lives of teenagers 25 years from now? Students write an article in the style of ChemMatters magazine in one of four categories: Biotechnology, Medicine/Healthcare, New Materials or Transportation/Environment. Learn more about the contest by visiting chemistry.org/oca and stop by to see the student entries and ask them questions about their ideas. The contest will be held June 10 at the Mid-Atlantic Regional Meeting (MARM) 2003. For more information visit <http://chemistry.org/oca> or contact: Sharon Sibilia by email at sibilia@erols.com. ☐

New Chemistry Outreach to Schools

Kathryn Wagner

Princeton University

This spring the Princeton Section of the American Chemical Society plans to develop a program of chemical demonstrations and activities related to water quality for the Education Department of the New Jersey Environmental Protection Agency. We would help the NJEPA fill its many requests from schools for help with special activities, especially around Earth Day. Chemists are often presented as environmental villains. If you would like to help present a more balanced view of the role of chemistry in the environment, please contact Kitty Wagner, kmwagner@princeton.edu or (609) 258-2937. ☐

Princeton Students Win Poster Contest

We wish to extend our congratulations to the Princeton University graduate students that have won prizes at the ACS New York Section Poster Session for Graduate Students in the Chemical Sciences. The winners from Princeton University were:

- **"Two-Dimensional Model for Peptide-Protein Binding"** Catherine M. Cresson-Tarsa, Frank H. Stillinger, Salvatore Torquato, and George L. McLendon.
- **"Rhizobactin-1021, An Assymetric Amphilic Siderophore: Synthesis, Membrane Behavior and Iron-Acquisition Strategies"** Minkui Luo, Evgeny A. Fedeev, and John T. Groves.

Students attended from many graduate schools including: NYU, Columbia, Princeton, Penn, Rutgers, Yale, Drexel, CUNY Brooklyn College, Seton Hall, State Univ of NY at Stony Brook, CUNY College of Staten Island and Lehigh. The judges were from local chemical companies and also NYU professors. The top four posters were awarded \$250 and a ticket to the Nicholls Award dinner on March 7th in New York City.



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US POSTAGE

ADDRESS CORRECTION REQUESTED

American Chemical Society

36th Middle Atlantic Regional Meeting

Hosted By The Trenton Local Section
With The Department of Chemistry
Princeton University, Princeton, New Jersey
June 8-11, 2003

"FORGING LINKAGES"



Elsa Reichmanis, ACS President 2003
Keynote Speaker

Alan MacDiarmid, 2000 Nobel Laureate
Session on Conductive Polymers & Functional Nanomaterials

Bassam Shakhashiri,
University of Wisconsin-Madison
The Joy of Learning and Exhortations of Good Teaching

Shirley Tilghman,
President of Princeton University
Speaker at the Women Chemists Luncheon

SYMPOSIA

Pharmaceutical and Biotech

Drug Discovery
Computational Chemistry
Biophysical Chemistry
Biochemistry
Forensics Chemistry
Agricultural Chemistry

General Chemistry

Organic Chemistry
Analytical Chemistry
Physical Chemistry
Polymer Chemistry
Material Chemistry

Nanotechnology, Environmental and Energy

Nanotechnology
Fuel Cells
Catalysis
Atmospheric Carbon Mediation
Solid State Chemistry
Environmental Chemistry

Special Sessions

Chemical Education
High School Chemistry Education
K – 8 Chemistry Education
Patent Law
Women's Symposium
Homeland Defense
Environmental Justice

You are invited to submit abstracts and posters for these and other symposia.

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The 36th Middle Atlantic Regional Meeting (MARM 2003),

hosted by the Trenton Section, will be held from Sunday, June 8 through Wednesday, June 11, 2003 on the campus of Princeton University in Princeton, New Jersey. Major Symposia are planned around the themes of Pharmaceutical and Medicinal Chemistry; Chemical Education from K-12 through college undergraduate, and Solid State and Material Science, including Catalysis, Nanotechnology and Energy concerns.

Other featured sessions include the role of Chemistry in Homeland Defense/Terrorism, General Chemistry and General Sessions focused on Education, Patent Law and Women in Chemistry. There will also be a session on Thermal Analysis & Study of Pharmaceutical Materials, sponsored by the Garden State Thermal Analysis Association (GSTA2). The Delaware Valley Chromatography Forum will present their 2003 student awards. Just preceding the MARM, the ACS division of Chemical Health and Safety is also sponsoring a session and will be holding a workshop with certification test. The ACS Regional Industrial Innovation Program will also be presenting their awards at MARM.

The meeting will also feature an exhibition of scientific equipment products and services, and undergraduate research poster sessions sponsored by the Rider University Student Affiliate and Chemagination, a poster and essay competition for high school students.

Special events planned for the MARM meeting include an opening evening (Sunday) wine and cheese reception, a Monday luncheon address by Dr. Elsa Reichmanis, the 2003 Chair of the ACS, on "**Chemistry in the 21st Century**" and following an evening barbecue, an address by Nobel Laureate Dr. Alan G. Macdiarmid. On Tuesday, there will be a **Women in Chemistry** luncheon with a presentation by Dr. Tilghman, the President of Princeton University. Also on Tuesday, MARM will focus on Education with a K-12 Teacher Day. We plan to feature a special session for high school teachers, a hands-on workshop for K-8 teachers, and a presentation by Dr. Bassam Shakhshiri in the evening.

Abstracts are invited for both oral and/or poster presentations in all of the aforementioned areas as well as organic, physical, analytical, and polymer chemistry. Abstracts must be submitted on-line through the MARM 2003 website:

<http://www.membership.acs.org/T/Trenton/MARM03>.

The deadline for abstract submission is April 1, 2003.

For further information and abstract submission, please visit the meeting website or contact either of the Program Chairs, Dr. Donna Bassolino, Donna@dbkonline.com, or Dr. Bing Zhou, zhou@htinj.com. ■

April Meeting

Speaker: Chris Miller
Wyeth Research

Topic: Chemistry in Women's Health, Selective Estrogen Receptor Modulators.

Date: **Wednesday, April 16, 2003**
Lecture at 6 PM
Room 324, Frick Laboratory
Princeton University

Dinner immediately after meeting
Prospect House
Princeton University

Hormone replacement therapy (HRT) for post-menopausal women has been known for some time to present both benefits and risks to its users. Among HRT's benefits are included prevention of hot flashes, bone loss and reduced rates of colon cancer. Risks of HRT use include breakthrough uterine bleeding (return of menses), breast cancer and venous thromboembolisms (blood clots). We (among others) have sought to design estrogens with improved profiles in order to improve patient results and compliance. Our efforts resulted in the discovery of the Selective Estrogen Receptor Modulator (SERM) bazedoxifene (currently in phase III clinical trials). This presentation will highlight the design, synthesis and biological characterization of this novel tissue selective estrogen. ■

Lectures & Dinner Reservations

Lectures are free and open to the public. The cost of dinner is \$20 per person, including wine (students and retirees, \$10). Reservations are necessary to attend dinner, but not necessary for the lecture. For dinner reservations, please contact Denise D'Auria at (609) 258-5202, denised@princeton.edu.

Dinner reservations must be seven days prior to the meeting date. Please call to cancel your reservations if you cannot attend. **NO-SHOWS WILL BE BILLED FOR THE COST OF THEIR DINNER.** ■