



THE DAYTON SECTION

DAYTON SECTION'S WEB PAGE ADDRESS:
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BULLETIN

May-June, 1999

"Global Warming: The Myth"

Wright State University

Wednesday, May 5, 1999

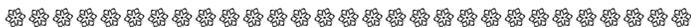


"The Serious & Delirious Use of Chemistry in Movies"

High School Awards Night

Sinclair Community College

Tuesday, June 1, 1999



Patterson-Crane Award

Ohio State University

Tuesday, June 22, 1999

AMERICAN CHEMICAL SOCIETY

Dayton Section

Eugene W. Kettering Center
140 East Monument Avenue
Dayton, Ohio 45402-1267

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DAYTON, OHIO

PERMIT NO. 517

DATED MATERIAL -- MEETING ANNOUNCEMENT -- DO NOT DELAY

Meetings...

May

Date: Wednesday, May 5, 1999

Place: 116 Health Sciences Building
Wright State University

Agenda: 6:30 PM — Social (Complimentary snacks and soft drinks)
7:15 PM — Speaker

Speaker: Dr. Michael Parsons
DeVry Institute of Technology

Topic: *"Global Warming: The Myth"*

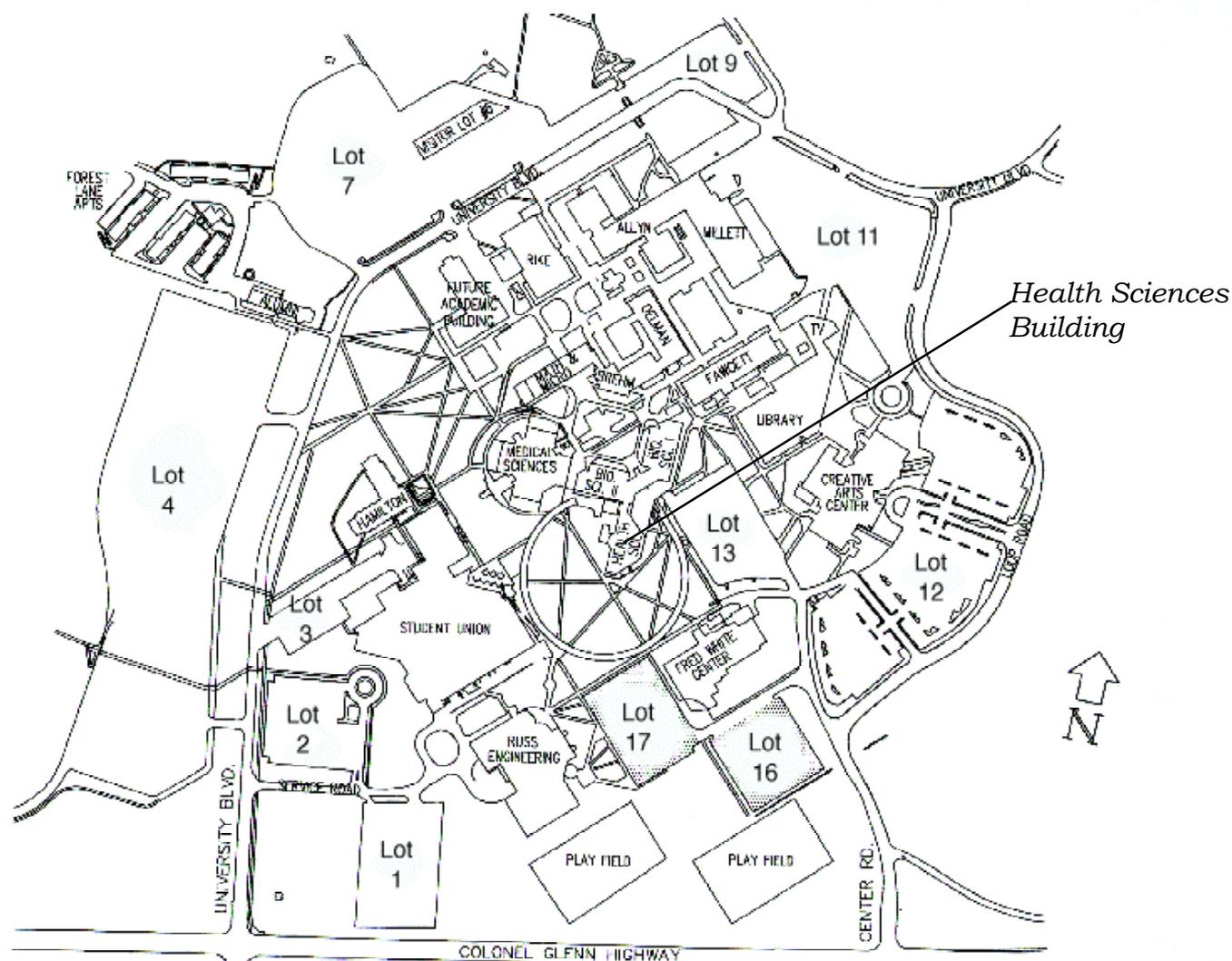
Biography:

Dr. Michael Parsons earned his B.A. and M.S. in Chemistry from Kansas State College and his Ph.D. from the University of Florida. During his seventeen years at Arizona State University he published nearly 100 technical papers and four books and graduated 25 Ph.D. students. His many academic awards include the prestigious William F. Meggers Award from the Society for Applied Spectroscopy (1967 and 1975). Not only is Dr. Parsons a strong academician, he has government laboratory and industrial credentials as well. He spent several years at Los Alamos National Laboratory as Deputy Group Leader for the Analytical Chemistry Group, followed by five years at Pacific Scientific Company, where he was Vice President of Technology. His many professional activities include membership in the American Chemical Society, Sigma Xi, the American Association for the Advancement of Science, and the Society for Applied Spectroscopy. He was National President of the latter in 1979. Aside from his many years as an ACS Local Section Tour Speaker, he was most recently the Program Chairman for the Pacific Conference. He is currently Dean of Academic Affairs at DeVry Institute of Technology, Pomona and Long Beach Campuses. His popular book, *Global Warming: The Truth Behind the Myth*, was published by Insight Books in 1995.

Abstract:

The issue of global warming due to greenhouse gas emissions has received much attention in the past few years. Enhanced by the ozone depletion issue, global warming has been brought to international forums, resulting in agreements to slow production and emissions of such gases. Climate change is far more complex than ozone depletion, however. In addition, greenhouse gases start with natural, not human-made chemicals. Many exaggerations and false statements have been made with respect to global warming, leading to misunderstanding and misconception about the nature and extent of the "problem." The scientific facts do not provide proof of global warming caused by anthropogenic greenhouse gases! Don't misunderstand, there is no question that there are greenhouse gases, and there is no question that the greenhouse phenomenon exists, but there are other forces at work on our planet which are far more influential than greenhouse gases. One such force is solar flux. The sun, which is variable in its output, provides most of the earth's warmth, and yet its effects have been held in computer models that predict dire consequences from greenhouse gases. Other important effects, such as ocean and cloud variations, have also been poorly accounted for in these models. A popular, but scholarly, presentation will address facts of global climate, computer models used to predict the effect of greenhouse gases, the source and balance of the most important greenhouse gases (water vapor and carbon dioxide), and factors and variables left out of climate models (solar flux, water balance, carbon dioxide, ocean effects). Finally, an attempt will be made to put the issue into proper scientific perspective.

Wright State University Campus Map



Patterson Chemistry Competition

On Saturday, January 30, 85 students from 12 different high schools participated in the Patterson High School Chemistry Competition at Sinclair Community College. The 11 semi finalists are listed below and will be asked to submit an essay on "Chemistry and Its Relevance to Me" for a scholarship award. These winners will be announced at the June Dayton Section meeting. The Dayton Section would like to thank Berch Carpenter, and all those who helped him, to again organize this successful event.

From Beavercreek: Maneesh Gupta, Michael Luther, Emil Martinsek & Christy Renz

From Bellbrook: Aaron Modic

From Centerville: David Buckles, Rob Herrick, Benazeer Noorani, Jeremy Olson & Ben Przybyla

From Fairborn: Chris Mahoney

Meetings...

June

- Date:** Tuesday, June 1, 1999
- Place:** Room 120, Building 12
Sinclair Community College
- Agenda:** 6:30 PM — Social
7:30 PM — Awards & Speaker
- Speaker:** Dr. John Fortman
Wright State University
- Topic:** *"The Serious and Delirious Use of Chemistry in Movies"*

Abstract:

This presentation will begin with illustrations of brief mentions of chemistry in films where you may not expect it, for example, "The Graduate," "It's a Wonderful Life," "1776," and "Bells on Their Toes." Movies that feature science will then be contrasted between then (the past) and now (the present), the real and the impossible, drama and comedy, and similar scenes in multiple movies. Several live chemical demonstrations relative to the movie scenes will be interspersed with the videos.

John Fortman has been a very popular ACS Tour Speaker for the past eight years giving 151 talks at 131 of the 188 different ACS Local Sections on 32 tours including all 28 of the different national tours.



Teacher's Workshop

The Department of Chemistry at the University of Dayton and the Miami Valley Chemistry Teachers Association will sponsor a workshop for High School Teachers on Saturday, April 24. The workshop will be presented by Ms. Maria Walsh from Pike High School in Indianapolis, IN. Ms. Walsh is the 1998 recipient of the James Bryant Conant Award presented annually by the American Chemical Society to the outstanding high school chemistry teacher. For more information contact Al Fratini at the 229-2631.

West District Science Day Chemistry Competition Winners Announced

On Saturday, March 27, 1999 the West District Science Day ACS Dayton Section special awards were given to the top three Chemistry related posters. Over 60 of the best Chemistry posters were presented from all high and junior high schools in the area. The winners are listed below from First to Third along with their poster title.

- John A. Feighery, CJHS, *"Determination of Vitamin C Concentration in Fruit Juices"*
- Carla R. Drennen, Bellbrook JHS, *"Which Milk Spoils Faster"*
- Rachel C. Buchenroth, St. Peter JH, *"Which Chemical Evaporates the Quickest with Water Added?"*

Congratulations!

Joint Meeting

Dayton and Columbus Sections American Chemical Society

Patterson-Crane Award Presentation

- Date:** Tuesday, June 22, 1999
- Place:** The Ohio State University Fawcett Center
2400 Olentangy River Road
Columbus, Ohio 43210
614-292-3238
- Agenda:** 6:00 PM – Hosted Reception
7:00 PM – Dinner: Choice of Chicken Oscar, Broiled Snapper, or a Vegetarian entree
8:00 PM – Presentation of Patterson-Crane Award to Dr. Stephen E. Stein.
Followed by Award Address
- Speaker:** Dr. Stephen E. Stein
NIST Fellow and head, NIST Mass Spectrometry Data Center
- Topic:** “Chemical Reference Data and Computers: a Cultural Revolution”
- Abstract:** The compilation and evaluation of reliable chemical reference data has always been a conservative, slowly moving discipline that follows the establishment of mature scientific areas. However, it is increasingly being caught up in the whirlwind of computer technology, which promises to revolutionize the delivery and even production of reference data. Efforts at harnessing some of the energy of the computer revolution without being torn apart will be discussed. This includes episodes from the colorful history of the NIST/EPA/NIH Mass Spectral Database along with some of the unique concerns when dealing with data that may one day be predictable by computer.
- Biography:** Dr. Stephen E. Stein is NIST (National Institute of Standards and Technology) Fellow and head of the NIST Mass Spectrometry Data Center. He received his B.S. in Chemistry from the University of Rochester and his Ph.D. in Physical Chemistry from the University of Washington. Prior to joining NIST in 1982, he was a Postdoctoral Researcher and staff scientist at SRI International in Menlo Park, California and an Associate Professor in the Department of Chemistry at West University for six years. Dr. Stein is the intellectual and technical leader of all aspects of NIST’s program on mass spectral data.
- Reservations:** Reservations can be made by phone (937) 836-3029 or e-mail to Margaret.Roach@afit.af.mil. Please include your professional affiliation and choice of entrée with your reservation by 2:00PM Monday, June 7, 1999. Early reservations are greatly appreciated. Reservations must be prepaid. If you are attending the 31st Central Regional Meeting, you should register for the banquet on that registration form and should not register through the Section.
- Directions:** I-70 East to Hilliard-Rome exit. Go left at the exit to Trabue Road (1st traffic light) and turn right. Continue to Route 33, Riverside Drive, and turn left on Riverside Dr. Continue to Lane Ave., and turn right onto Lane. Go East on Lane to Olentangy River Rd, North on Olentangy to the Fawcett Center. Turn into the parking lot which is the first driveway as you go North on Olentangy River Rd.

Commentary

Musings from the Chair

The attached newspaper article was received unsolicited from Mr. Bixler in early February 1999. The date of the article is November 1949 and I am not sure which Dayton Newspaper published it, as there were Dayton Daily News and the Journal Herald at this time. Mr. Bixler is a 50-year member of the ACS and the award by the Dayton Section made a very large contribution to his successful and rewarding career. I feel that some quotes from his letter are appropriate as he can say it better than I.

“What is even more significant to me personally, however, is the impact that award by the Dayton Section had on my professional life. I no doubt would have joined the ACS, but certainly only after I had been working full-time as a chemist and thus in a chemical environment. Therefore, when the time came after graduation in June 1950 to begin looking for a job, I would not have been getting C&EN and thus would not have had its classified ads available listing jobs for which I might apply. Thus as I read the ads early on, I was totally surprised by one.”

At this point, Mr. Bixler quoted the ad, as he remembered it, for an assistant editor for Industrial and Engineering

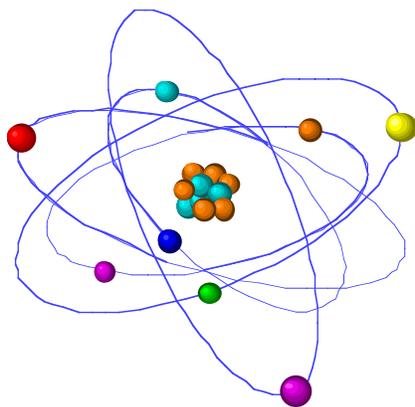
Chemistry and how, as writing was his first love, he applied and embarked on a long and rewarding career. Quoting again:

“Deciding to write about chemistry was certainly one of the two most important professional decisions I ever made, and the other one was to apply to the ACS for that first writing job. There are many types of jobs that are great, and there are many great organizations to work for, be they in industry, education, or government. I consider myself to have been extremely fortunate for having made both decisions.

So, to go with the thanks in 1950 to the Dayton Section, sincere thanks again after 50 years. May every other chemistry major that the Dayton Section has similarly honored have been as lucky.”

And for the naysayers in the section who wonders if the Dayton Section makes a difference, the answer has to be an unqualified YES especially for Mr. Bixler. Get Involved!

Frank Lonadier, Chair



Following is the text of the original article that appeared in a Dayton paper in 1949. The original copy was not suitable for duplication here.

Bixler, Antioch Senior, Receives Chemistry Award for Proficiency

Gordon Bixler, A-div senior, received the annual American Chemical society award for college students from the Dayton chapter of the society Nov. 8. Dr. James Corwin, chairman of the Dayton section, said that chemistry major Gordon was chosen for his proficiency in academic and co-op jobs.

The award is a junior membership for a year in the society and a certificate of recognition. Last year it was given to Bill Jones, who is doing graduate work at Birmingham university, England.

Dr. Corwin, besides being chairman of the Dayton section of ACS and head of the chemistry department, is a member of the Education section of the national society. He has been appointed to write either a pamphlet or book on improvements of methods for teaching college chemistry in the classroom and laboratory. Working with him will be Dr. Friedenber of the Education department of the University of Chicago.

Several members of the Antioch chapter of the ACS went to Ohio State university Nov. 15 to hear Professor Peter Deybe speak on high polymers. Professor Deybe, a Nobel prize winner in , was initiated Tuesday as an honorary member of Phi Lambda Upsilon, which is only open to men of unusual achievement in chemistry.

Some Comments About The Dayton Section

John Fortman,
Councilor & ACS Tour Speaker

After serving three years on Council, two years on the Local Section Activities Committee, and seven years as a tour speaker, I have some observations and insights which may be of interest. Dayton has been fortunate to have remained a very active section at a time when some sections are struggling to continue a minimum level of operations. Since returning to Dayton 34 years ago I have seen the section shrink to about half its previous size and go through at least three major laboratory closings with the accompanying reduction in active and inactive membership. Like most sections we are experiencing a decline in the number of young members interested in taking an active part in running the section, but fortunately we have had some new members willing to dedicate their time to at least some section activities. We have recently extended the term of office for the treasurer and secretary to two years which helps for the smoother operation of the section and also reduces the task of finding members willing to run for office. The most recent election was criticized for having only a single slate of candidates. That has been the common prac-

tice of many other sections including many much larger than Dayton's in that they are often lacking in willing candidates. This also eliminates the reluctance of some volunteers to run a second time if once defeated. The Dayton section would welcome any new or old members to step forward and volunteer to run for any office or join any committee. If younger members don't feel the section is doing what it should be doing for them, there is ample opportunity to effect a change with a willing, cooperative board - something not all sections have. Older members who did not serve the section in their younger days are encouraged to consider using their matured skills in behalf of the section now. Members who have already served a term in one or more offices are encouraged to consider running again for the same or a different office. Glen Buell was willing to serve a second term as chair which may make him the first re-elected chair of the Dayton Section, but it is common practice in other sections, especially smaller ones, for people to succeed themselves for multiple years or to recycle through an office multiple times.

Soon after I started teaching I remember a member of student government declaring that "everyone was apathetic and no one wants to do anything about it." The purpose of this note is to encourage

any and all members of the section to become active to some degree or another - whether it is simply to attend one meeting a year or to contact a current officer about becoming more active in any fashion.



Quotes

"It's disconcerting to reflect on the number of students we have flunked in chemistry for not knowing what we later found to be untrue."

--quoted in Robert L. Weber, *Science With a Smile* (1992)

"There is a theory which states that if ever anyone discovers exactly what the Universe is for and why it is here, it will instantly disappear and be replaced by something even more bizarre and inexplicable. There is another theory which states that this has already happened."

-- Douglas Adams

"If we knew what it was we were doing, it would not be called research, would it?". -- Albert Einstein

"Two things are infinite: the universe and human stupidity; and I'm not sure about the the universe." -- Albert Einstein



The 1999 Patterson College Chemistry Award Winners

The Patterson College Chemistry Award is presented to an outstanding junior chemistry major at each of the colleges and universities in the Dayton Section. Students are selected on the basis of their academic performance, character, and campus involvement. Each recipient receives a certificate of recognition and a cash award of \$300. The students were honored at the April meeting of the Dayton Section.

Amy N. Davis
Wright State University

Maranatha Ruberg
Cedarville College

Wesley N. Sivak
University of Dayton

Jeremy Spittler
Wittenberg University

Congratulations!



Women Chemists Committee

DeLyle Eastwood, Jennifer Shaw and Nicole Ritchard recently presented a poster at the National ACS Meeting in Anaheim. The poster detailed the local WCC activities. If you have any questions about the WCC or would like to become more involved please contact DeLyle, Jennifer or Nicole.

ACS Congressional and Science Policy Fellowships

The ACS *Congressional Fellowship Program* will place two ACS members in congressional offices for one year beginning in September 2000 to:

- gain first-hand knowledge of the operation of the legislative branch;
- make scientific and technical expertise available to the government; and
- forge links between the scientific and government communities.

Applications are due January 3, 2000. The ACS is seeking applicants from among ACS members who range from the "seasoned" chemical professional to the recent graduate with or without work experience. ACS provides a stipend and an allowance for relocation expenses.

ACS also selects a *Science Policy Fellow* who works in the Headquarters Office of Legislative and Government Affairs, usually for two years. The Science Policy Fellowship offers a unique opportunity for a scientist to contribute to the Society's discussions and recommendations in areas of importance to the chemical community.

Contact the program office for application information:

Congressional Fellowship Program/Science Policy Fellowship Program
Office of Legislative and Government Affairs
American Chemical Society
1155 16th Street, NW
Washington, DC 20036
202/452-8917
E-mail: congfellow@acs.org
Information on the Web:
<http://www.acs.org/govt>

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Scientific Research & Development
6565 Willowick Place, Dayton, OH 45459-3005
Tel. (937) 435-7632
Dr. Sam P. Sinha

Need Help in Your Career?

The Dayton Section offers assistance in career planning and searching for new positions. Contact Glen Buell (937) 426-2937.



HUMoRuS

A chemist and a mathematician are sitting in a faculty lounge. Suddenly, the coffee machine catches on fire. The chemist grabs a bucket and leaps towards the sink, fills the bucket with water and puts out the fire. The second day, the same two sit in the same lounge. Again, the coffee machine catches on fire. This time, the mathematician stands up, gets a bucket, hands the bucket to the chemist, thus reducing the problem to a previously solved one.

Why does hamburger have lower energy than steak?

Because it's in the ground state.