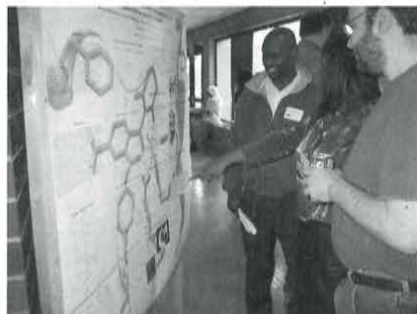


Student Award Day April 23, 2004

Another great year for UWM Chemistry Student Awards Day! Students presented 35 posters in all areas of study, including 6 undergraduate posters. The day began with the featured speaker, Randal Sprecher of Sprecher Brewery, with his talk, "General Chemistry in the Brewery Setting". Sprecher founded his brewery in 1985 and the company has grown into a successful business enterprise producing fourteen



First Place Graduate Poster winner, Kayunta Johnson-Winters discusses her poster with fellow graduate students.

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traditional craft beers and seven gourmet sodas, sold in more than 20 states. His talk focused on the science involved in the brewing process. The poster competition followed the opening lecture. Judges for this year's competition included three UWM Chemistry Alumni. See the "Alumni Spotlight" section on Page 4 for details.

Poster Session Awards

Graduate Level:

1st Place Keith Hall Award for Excellence in Graduate Research
Kayunta Johnson-Winters, "Catalytic and Inhibitory Phenomena with 4-Hydroxy Phenylpyruvate Dioxygenase from *Streptomyces Aneermitilis*."

2nd Place Keulks Award for Graduate Research
Wenyuan Yin, "Search for Benzodiazepine/GABAA Subtype Selective Bivalent Ligands That Reverse Alcohol Self-Administration."

3rd Place McFarland Award
Feng Gao, "An Ultrahigh Vacuum Investigation of the Chemistry and Tribology of Extreme Pressure Lubricant Films."

4th Place McFarland Award
Vincent Purpero, "Fluorinated Substrates with(4-Hydroxyphenyl)pyruvate Dioxygenase from *Streptomyces Avermitilis*."

5th Place McFarland Award
Ann Marie Beshensky, "Methothionein III Peptides: An Investigation of Protein Interacting Partners."

Undergraduate Level:

1st Place McFarland Award
Christy Kiekenbush, "Cellular Zinc Metabolism: Stable Isotope Studies of Zinc-protein Interactions in Cultured Mammalian Cells."

2nd Place McFarland Award
Paulo Borda, "Polyoxometalate Synthesis and Characterization."

2004 Academic Awards

Louise A. Arndt Fellowship
Trevisan-Fueger UWM Chemistry Award
Charles B. Gates Award(s)

Outstanding Senior Award
Chemistry Emeritus Award, Outstanding Junior
Outstanding Performance in Intro. Chem.
Houghton Mifflin/Int'l. Ctr. for 1st Yr. Undrgrd. Chem. Ed.
Outstanding Performance in Analytical Chemistry
Outstanding Performance in Biochemistry
Outstanding Performance in Inorganic Chemistry
Outstanding Performance in Organic Chemistry
Vanselow Award in Physical Chemistry
Outstanding Teaching Assistant Award(s)

Paul Henning
Paul Henning
Paulo Borda/Alphonso
Amaya/Valerie Moua
Nicole Adamczyk
Jelena Plavsic
Jennifer Appenzeller
Joseph Bailey
Nicole Adamczyk
Zaghum Bhatti
Ben Schilling
Yelena Sigal
Nicole Adamczyk
Aaron Roerdink/Jessica
Ammerman/Shahid Islam



Chemistry Department Chairman, Dr. Walter England, with Randal Sprecher, founder of Sprecher Brewery, at the 2004 Chemistry Awards Day celebration.

Highlights from the Chair



Summer will ultimately come to Milwaukee! This spring was one of the storied wet foggy springs that is loved by our trees, grass and flowers, but less so by the students and faculty and all the others here at UWM. Our newsletter still awaits its new name to incorporate our new name (Department of Chemistry and Biochemistry). There is still time to e-mail your suggestions to us (ljhall@uwm.edu).

Even summer enrollments are up. Nursing and Medical Technology have grown a lot, which means we have to coordinate our offerings carefully so that their students stay on track. As you might imagine, that can mean creative scheduling (and budgeting!) across the Schools of Nursing and Medical Technology and the College (Letters and Science). All have been super cooperative and it looks like all will be sailing as smooth as possible.

Faculty enrollment will be up by one again this year. Please welcome Professor Jörg Woehl from Grenoble (see "Welcome" article, below). We also thank Mrs. Mary Layde for

below). Young faculty should be added as regularly as budget allows for at least a few more years. Our young faculty and the graduate students they attract are crucial for our continuing success in the classrooms and laboratories.

Our annual Awards Day went very well as usual because we work hard at it and we get help from our alums. This year's judges were Dr. John Ejniak, Dr. Scott Harder, and Dr. Ron Theys. They did a great job. Check out our Alumni Spotlight feature on page 4 for more information on these alums. Our speaker was Randal Sprecher, founder of Sprecher Brewing, who talked about "General Chemistry in the Brewery Setting" (and many other things he experienced in his quest to brew beers and sodas he personally would love to drink). Some of our faculty, staff and students are familiar with his work!

The Houghton Mifflin/International Center for First-Year Undergraduate Chemistry Education sponsored a new award this year and we thank them very much! We also thank our former colleague Prof. George Sosnovsky for establishing an award for PhD theses. Prof. Sosnovsky was — and still is, as Emeritus Professor — a very important part of organic chemistry at UWM. We will tell you more about his award as we develop it.

We also thank Mrs. Mary Layde for

establishing the Durward C. Layde Memorial Scholarship for undergraduate chemistry majors at UWM. Prof. Layde, as you veteran alums know, spent his professional life teaching and advising our chemistry students. About a decade ago, the Laydes donated one of the first departmental server computers.

We plan to host two meetings over the next few months; one this fall and the other in the spring of 2006. The UW Chemistry Faculty Meeting will be held on October 1 & 2, 2004 and the ACS Great Lakes Regional Meeting on May 31st - June 2nd of 2006.

We have a new Chancellor. Carlos E. Santiago, provost and vice president for academic affairs at the University at Albany, State University of New York is coming to UWM. We are excited for many reasons. Two in particular are that Dr. Santiago's background is Letters and Science (the backbone — and heart — of UWM) and that he was an administrative part of the very impressive nanoscience effort at Albany. Professors Tysoe, Bennett and Duncan have been leading a nanofactory initiative at UWM which includes physics and engineering.

We are also searching for a new Dean of Graduate School. I believe I can say that all of the Natural Sciences and also Mathematics are very excited! I'm sure others are excited, too, but I don't have

Continued on page 4...

Welcome New Faculty & Staff

Dr. Jörg C. Woehl will join the Chemistry Department this fall.

Dr. Woehl received his Ph.D. from the University of California at Riverside in 1996. After a few years of postdoctoral research at the University of Bordeaux, he joined the faculty at the Université Joseph Fourier in Grenoble, France as an assistant professor in the department of Physics, Laboratory of Physical Spectrometry. His research interests include nano-optics; specifically spectroscopy and manipulation of single molecules.

Christina Fox joined the department in May, taking over the role of Purchasing Coordinator from Charity Guzman. Christina joins us from the Milwaukee Public School System, where she was secretary of an elementary school. Christina will be handling all departmental purchasing, expense reports and travel authorization forms.

UWM Chemist is written and edited by Laura Hall. The Faculty Advisor is Dr. M. Mahmud Hossain. To contribute alumni news or feedback, email ljhall@uwm.edu.

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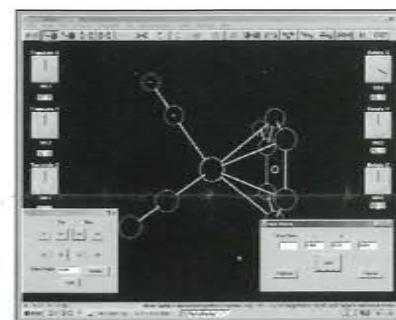
www.uwm.edu/Dept/Chemistry



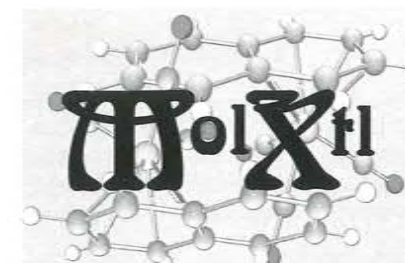
What is MolXtl?

Faculty Member Develops Molecular Graphics Program

MolXtl is a program for the creation, modification, manipulation, analysis, and viewing of molecular structures. The current version — Version 2 — is the Windows version of a program originally written in 1985 in Microsoft QuickBasic for DOS.



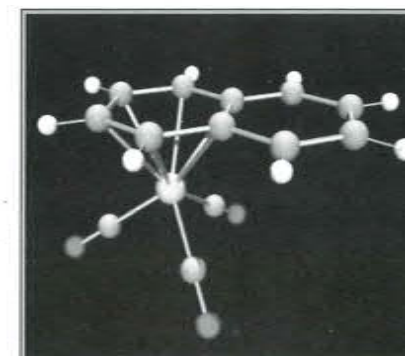
MolXtl is the brainchild of Dr. Dennis W. Bennett, Professor of Inorganic Chemistry at UWM who has been working on the development of the program over the last several years. According to Bennett, "The initial motivation for writing the program was to provide the author with molecular graphics capabilities for 'small molecule' crystallography. A number of programs for molecular visualization for the personal computer have become available over the last few years, but few of them produce publication-quality line



drawings, or allow for simple modification or graphical creation of molecular structures. These issues were the underlying motivation behind the creation of MolXtl."

This software is "freeware", provided free of charge to all non-commercial users and can be downloaded from the MolXtl web site at: <http://www.uwm.edu/Dept/Chemistry/molxtl/>. Information on commercial licensing is available on the MolXtl web site, or by contacting Dr. Bennett (dwbent@uwm.edu).

A manuscript describing MolXtl is currently being written, to be submitted to J. Appl. Cryst.



Congratulations!

Professors Aldstadt & Geissinger for their recent promotions to Associate Professor (with tenure).

Joseph H. Aldstadt, III (Ph.D., Ohio University)

Associate Professor, Analytical Chemistry

Email: aldstadt@uwm.edu

Website: <http://alchemy.chem.uwm.edu/research/aldstadt/>

Research Interests: Our research encompasses studies of analytical instrument design and measurement science for chemical species in the environment. We are interested in: (a) developing new ways to make chemical measurements in situ (at the sample's origin); (b) better understanding the chemical and physical speciation of metals/metalloids (e.g., arsenic) and semi-volatile organic compounds ("SVOCs") in the environment; and (c) studies of the reactivity of organoarsenicals.

Peter Geissinger (Ph.D., University of Bayreuth, Germany)

Associate Professor, Physical Chemistry, Laboratory for Surface Studies

Email: geissing@uwm.edu

Website: <http://alchemy.chem.uwm.edu/research/geissinger/>

Research Interests: (1) The study of intermolecular interactions in solids at a microscopic level with the goal of determining quantities like electric fields they are generated by the local environment of a probe molecule at the probe molecule site; (2) The use optical fibers as support for combinatorial chemistry, with applications ranging from the design of new drugs to the efficient synthesis and spatially resolved, remote readout of large, diverse array of optical fiber sensors.

Alumni News

Dominique Coster (Ph.D., '95) and his wife, Marie are back in the US on a two-year appointment. They are living in California with their three daughters: Charlotte (5 yrs.), Marueen (4 yrs.) and Laure (19 mos.) Dominique writes "California is definitely different from WI. We are still driving our '60 Impala!"

Marc A. Young (BS '93) is employed by Rice Medical Center in the General Surgery department.

Cynthia Fink (BS '93) received an MS in biochemistry from Indiana University in 1996. She is now employed by Roche in Indiana as an Industrial Consultant. Cynthia shares "I work as an international liaison, using German in my job. I've started a knitting circle".

Michael Grogan (BS '99) received a law degree from Marquette University in 2002 and is now in his second year of medical school at the Medical College of Wisconsin and according to Mike, "I have no idea what type of medicine I want to specialize in yet!"

Michael McLaughlin (BS '97) received his Ph.D. in Organic Chemistry from the University of Minnesota in 2002. He is currently a chemist at GE-Global Research in Albany, NY.

Rebecca L. Johnson (MS '01) is currently a Senior Associate Scientist at Pfizer.

Continued from page 2...

firsthand evidence! We think it will be done before summer's end.

Professor Cook is chairing the first George Keulks Memorial Lecture. Many of you remember George as Dean of the Graduate School for many years and also as an important part of physical chemistry at UWM. It appears this will happen next October (maybe with a new Graduate Dean in place).

Finally, we congratulate Professors Aldstadt and Geissinger for their promotions to Associate Professor (with tenure). We look forward to many productive years from them!

I wish for all of you your particular vision of George Gershwin's lyrical ode "Summertime and the livin' is easy, fish are jumpin' and the cotton is high." There's more, but you get the sentiment. Have a great summer!

Sincerely,



Walter England
Chairman

New Patent Granted

US Patent No. 6683205 B2:

Synthesis of 2-aryl propenoic acid esters for the production of non-steroidal anti-inflammatory drugs.

Dr. M. Mahmud Hossain, Associate Professor of Organic Chemistry was granted a US patent for his work on the synthesis of 2-aryl propenoic acid esters for the production of non-steroidal anti-inflammatory drugs (NSAIDs). The invention relates to the synthesis of NSAIDs. More particularly, the synthesis of 2-aryl-3-hydroxy-propenoic acid esters and 2-aryl propenoic acid esters, which are key intermediates in the production of certain NSAIDs and their pharmaceutically acceptable salts. For more info, please contact Dr. Hossain (mahmun@uwm.edu).

Alumni Spotlight

This year's Poster Contest would not have been possible without the help of our terrific volunteer panel of judges. If you are interested in volunteering for next year's event, please let us know. Visit the alumni area of our website: www.uwm.edu/Dept/Chemistry/alumni/ for contact info. While you're there, share your news with us, or update your mailing address.



Dr. John Ejnik

Dr. Ejnik (standing, right) received a B.S. in Chemistry from the University of Wisconsin-River Falls in 1991 and a Ph.D. in Biochemistry from the UWM in 1996. His thesis work with Dr. Petering's group involved studying the kinetic reactivity of the metal binding protein Metallothionein. After graduation, John joined the US Navy as a biochemist. His naval career involved radiobiology research, production and technical director at the forensic Great Lakes Naval Drug Screening Laboratory; and clinical laboratory manager at the Armed Forces Institute of Pathology. John is currently an assistant professor at Northern Michigan University.

Dr. Scott Harder

Dr. Harder (seated) received his BS in Chemistry from the University of Wisconsin-Milwaukee. He then continued at UWM and received his Ph.D. in Analytical Chemistry (Dr. Feinberg) in 1989. He then worked in the field of chromatography separation. He has been working in instrument sales now for seven years. Scott is currently an MS Specialist for Waters Corporation selling Mass Spectrometry in small molecule and proteomics.

Dr. Ron Theys

Upon graduation from UWM in 1994 (Dr. Hossain), Dr. Theys (standing, left) was hired as a publications and promotions specialist at Aldrich Chemical Co. in Milwaukee. While there, he was promoted to organic product line manager in 1996. In 1998, he relocated to the Appleton, WI area to work for International Paper as a chemical buyer. In 2001, he pursued a teaching position. Ron began teaching as an ad hoc instructor of chemistry at UW-Oshkosh and UW-Fox Valley, remaining for one year at each location. In 2003, he was hired as an assistant professor of chemistry at UW-Fond du Lac.

Thank you for your contributions!

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