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THE **NEWSLETTER** OF
THE UNIVERSITY OF WISCONSIN-MADISON

CHEMISTRY DEPARTMENT

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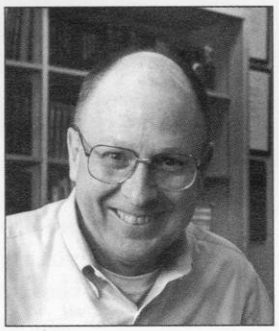
FROM THE CHAIR

SUMMER 2000



This letter is the last thing written for the *Badger Chemist*, and it lets me update you on the latest developments. In my second year as chair, I've grown more "at home" on the job which remains interesting, challenging, and exciting.

The addition to the Chemistry building is essentially complete! These new synthetic chemistry laboratories are spacious, open, and bright. Student offices outside the labs, conference rooms, and break rooms make the building very livable. We'll move into the facility in June. The formal dedication of the building will be Friday, September 15th at 3:00 PM and I hope that many of you will be able to attend. We are very grateful to Dean Certain and the College of Letters and Science for increasing their commitment for the new addition by $500,000 this year. Renovations of our current building will begin this summer and continue through the end of 2001.

Five new faculty members have greatly invigorated and rejuvenated our department. Pictures and short descriptions of their research start on Page 2.

In July, Daesung Lee (Ph.D. at Stanford, Postdoc at Harvard) will join our faculty to work in synthetic organic chemistry and bioorganic chemistry. Next year, the Department will again be searching for new faculty and is making special efforts to locate outstanding women and minority candidates at early stages in their careers. Your help in bringing such candidates to our attention will be appreciated.

Exciting Chemistry at Wisconsin has received great attention from *Chemical and Engineering News* in the past year. Reports included Bob Hamers' characterization of cyclooctadiene on semiconductor silicon, Sam Gellman's work with beta-peptides including the development of a new antibiotic, John Moore's work in Chemical Education, Rob Corn and Lloyd Smith's work on DNA computing, Bob McMahon's work on microwave structure determination of *cis*-hex-3-ene-1,5-diyne, John Wright's development of two dimensional coherent vibrational spectroscopy, Ron Raines' work on the origin of the stability of collagen, and a feature article on Laura Kiessling's science in conjunction with her MacArthur Award.

National chemistry meetings are also showcasing our department. Steve Burke organized the 36th National Organic Chemistry Symposium attended by more than 1000 chemists at the Memorial Union in July 1999. Bob McMahon is organizing the Reaction Mechanism Conference, which will be held in Madison from June 24-29, 2000.

This has been a great year for undergraduate and graduate teaching. The Chemistry Department is the first recipient of the Chancellor's Award for Departmental Teaching that includes $50,000 for educational improvements. The entire department, faculty, staff, and students, take justifiable pride in this honor. Art Ellis received this year's Benjamin Smith Reynolds teaching award from the College of Engineering. The Pharmacia-Upjohn Teaching Awards went to Steve Burke and Hyuk Yu last year. The College of Letters and Science gave the department a major undergraduate laboratory modernization grant to update our laboratories. New undergraduate chemistry labs (possibly involving new construction) are slated for planning in the 2003-2005 biennium and construction as early as 2005-2007.

We are looking forward to another exciting year with a New Building and 50 new graduate students.

Chuck Casey, Chair
email address: *casey@chem.wisc.edu*

CURRENT CHEMISTRY NEWS

Departures

Vince Fitzgerald, electronics shop supervisor and chief electronics technician, retired in January and will spend more time at his cottage up north.

Mike Green, our electronics engineer and network specialist since 1985, has retired to devote more time to his electronics company. We had not yet replaced Mike at press time, and his contributions, especially during the move to the new building, are sorely missed.

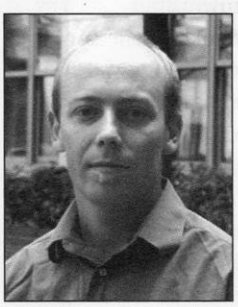
Ron Porter, electronics technician with the department since 1988, took a promotional opportunity at another state agency.

Dave Snyder, who worked in the mass spec center until his retirement in 1997, then worked part time until January, 2000, has retired for real this time.

Arrivals

The Department was strengthened by the arrival this year of five exciting new faculty members.

Peter Belshaw, Assistant Professor of Chemistry (Organic) and Assistant Professor of Biochemistry. Peter received his B.Sc. in 1990 from the University of Waterloo, Ontario, Canada, and his Ph.D. in 1996 from Harvard University. His research interests lie at the interface of Chemistry and Biology with the broad goals of investigating and manipulating biological systems with both chemical and genetic approaches. Visit his group website at *http://www.chem.wisc.edu/~belshaw.*



PETER BELSHAW

Assistant Professor **Thomas C. Brunold** (Inorganic) received his Diploma in 1993 and his Ph.D. in 1996, both from the University of Bern, Switzerland. His interests are in Bioinorganic Chemistry, the application of a broad variety of spectroscopic methods for the study of metalloenzyme structure and function, and metal complex - DNA interactions. His research group employs a combination of experimental methods (such as optical absorption, circular dichroism, magnetic circular dichroism, and resonance Raman spectroscopies) and computational techniques (including Hartree Fock and density functional theory calculations) to define the electronic and geometric structures of metalloprotein active sites and biologically relevant transition metal complexes. These studies are directed toward (i) defining electronic structure contributions to the reactivity of these sites and (ii) elucidating the corresponding reaction mechanisms on a molecular level.

THOMAS C. BRUNOLD

Silvia Cavagnero, Assistant Professor (Biophysical and Physical), received her B.S. in 1988, "La Sapienza" University, Rome, Italy; her M.S. in 1990, University of Arizona; and her Ph.D. in 1996, California Institute of Technology. Her research interests are *in vivo* protein folding/misfolding pathways; NMR structural studies of chaperones; and RNA folding/misfolding. The research in her laboratory focuses on exploring the detailed principles that govern the folding and misfolding of proteins and RNA. The group specifically addresses both kinetic and structural aspects and employs a variety of biophysical methods ranging from ultrarapid mixing to nuclear magnetic resonance (2D and 3D experiments, selective labeling) and mass spectrometry. These studies lie directly at the interface between physical chemistry, organic chemistry and biology.

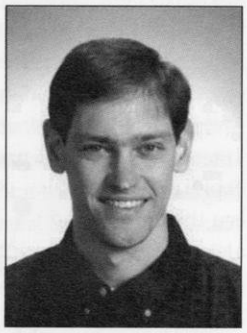
SILVIA CAVAGNERO

Professor of Chemistry (Analytical) and Biochemistry **David C. Schwartz** has research interests that lie at the interface of Chemistry and Biology with the broad goals of investigating and manipulating biological systems with both chemical and genetic approaches. (1) Chemical synthesis of combinatorial libraries of natural product variants and the screening of these libraries to identify compounds with novel biological activities. Such compounds will be useful as pharmacological probes of the proteins

DAVID C. SCHWARTZ

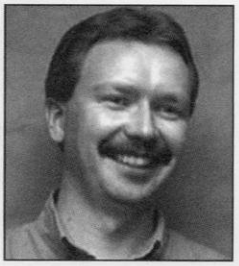
(or other cellular molecules) whose cellular function is modified upon binding to the compound, thus providing tools for cell biology investigations. (2) Mechanism of natural product biosynthesis. Many natural products fall into two classes: polyketides and nonribosomal peptides. We are interested in developing methods to genetically reprogram nonribosomal peptide synthetases to biosynthesize new variants of natural products.

Assistant Professor (Organic and Inorganic) **Shannon S. Stahl** received his B.S. in 1992 from the University of Illinois – Urbana Champaign, and his Ph.D. in 1997, California Institute of Technology. His research efforts are focused broadly on transition metal-mediated reactions in areas ranging from synthetic organic chemistry and homogeneous catalysis to mechanistic organometallic chemistry and bioinorganic chemistry. Particular emphasis is placed on developing and exploring oxidation reactions that utilize dioxygen as the terminal oxidant.



SHANNON S. STAHL

Gordon Bain, General Chemistry Lab Director, joined the department in June of 1999. A native of Scotland, Gordon received his undergraduate degree from the University of St. Andrews, obtained his Ph.D. in Inorganic Chemistry from Northwestern University with Ken Poeppelmeier and spent two years as a Camille and Henry Dreyfus Postdoctoral Fellow with Dr. Douglas X. West at Illinois State University. Prior to joining the department, Gordon was Assistant Professor of Chemistry at Waldorf College in Iowa. At UW–Madison, Gordon was involved in the summer filming and production of Chemistry Comes Alive! IV with Jerry Jacobsen and summer student Kara Bruce, and has also introduced several new or updated lab experiments to the 103, 104, and 108 curricula. Gordon's wife Rachel, also a Northwestern Ph.D. graduate (with Du Shriver), teaches at the Chemistry Learning Center. They have a two-year old son, Justin, whose favorite questions, as befits the child of two scientists, are "why?" and "what's that?".



GORDON BAIN

Faculty and Staff News

Mark Ediger was on sabbatical for the 1998-99 academic year. In spring of 1999 he spent 7 weeks at the Max Planck Institute for Polymer Research in Mainz, Germany, visiting Prof. Hans Spiess. As a result of this trip, new collaborations have been established with scientists at the MPI and the University of Crete in Greece. This trip also provided opportunities to visit and present talks at six universities in Germany, France, and Switzerland. Visits to US universities this year included Cornell, Colorado, Colorado State, Texas, Oregon, and Iowa State.

Sam Gellman spoke at the 34th Euchem Conference on Stereochemistry in Switzerland in April and the Heterocycles Gordon Conference in June. He delivered the Division of Biology and Biomedical Sciences' 25th Anniversary Lecture at the Washington University Medical School (St. Louis) in June, and the Mathias P. Mertes Memorial Lecture at the University of Kansas Department of Medicinal Chemistry in September.

Bob McMahon was appointed as an Associate Editor for the *Journal of Organic Chemistry*.

Cathy Middlecamp was elected in 2000 as a Councilor for the Executive Board of Directors of the Association for Women in Science (AWIS), Washington, DC. In October 1999 she was co-author on the third edition of *Chemistry in Context*, published by McGraw-Hill, a project of the American Chemical Society. Cathy was awarded the "Distinguished" prefix for her Faculty Associate title, an achievement recognizing her national stature.

As usual, **John Moore** had a full schedule of meetings, travel, and presentations. January found him in La Jolla representing the *Journal of Chemical Education* at the ACS Editor's conference, an annual gathering of the chief editors of all ACS publications. This is always a stimulating event, partly because it provides insight into the future directions of scientific publishing. At the end of January John was in New Orleans to attend the National Learning Infrastructure Initiative Meeting where he gave the talk, "Course Redesign at the University of Wisconsin".

In March he gave a talk at the ACS Maryland local section and he and Earl Peace led a workshop at Towson University on New Traditions teaching methods for college and university faculty. The end of the month found him in the Los Angeles area, first as a keynote speaker for the 148th Two-Year College Chemistry Conference where he spoke on, "Carrying the Vision of Neil Gordon into the 21st Century" and then at the ACS National Meeting in Anaheim. He participated in the ACS Presidential Plenary Event on color and light (organized by Art Ellis) by giving the talk, "Coloring the Curriculum—From Kindergarten through College". You may have seen his photo in the issue of *C & E News* that reported on that ACS Meeting. Among other topics, he discussed a simulated spectrophotometer that was created using virtual reality. Not only can the instrument be manipulated using a mouse, but as seen in the graphic its case can be rendered transparent so that students can see its inner workings. Also at the ACS Meeting he participated in a symposium on peer review with the talk "Peer Review and the Journal of Chemical Education."

Closer to home, he gave the keynote address at the 29th Wisconsin Undergraduate Research Symposium in Chemistry at Carroll College in Waukesha, he spoke on "Can Virtual Reality Have Real Virtue: Using Electronic Media Effectively" at the UW Chemistry Department Colloquium series, and participated in the UW Chancellor's symposium, Teaching with Technology, with the invited talk, "Redesigning General Chemistry with Multimedia and WebCT".

Then in June it was on the road again, first to give an invited talk at the ACS Central Regional Meeting held in Columbus,

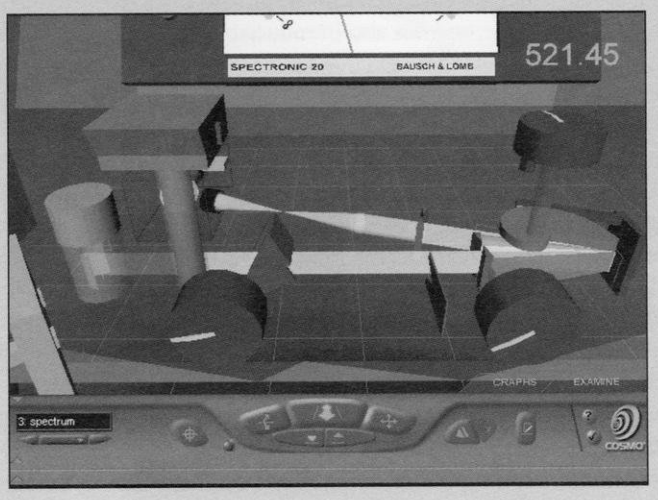
Ohio, and then to Education Night at the ACS Chicago Local Section where he was the keynote speaker. The beginning of August found him in Fairfield, Connecticut, as a Signature Demonstrator at the opening of the ChemEd '99 Conference, and on the following days giving three additional talks. The end of August it was the ACS National Meeting in New Orleans, where he gave an invited presentation and a poster, both about the *Journal of Chemical Education*.

In October he attended two regional conferences: the MACTLAC Conference, held this year at Augustana College in Rock Island, Illinois, and the UW System Chemistry Department Faculties Conference, held at UW–River Falls.

During 1999 John received two new grants. One is for dissemination of the results of the New Traditions curriculum project (see report elsewhere in this issue) and the other four NSF Systemic Initiatives. It provides $1.1 million over the next three years. The other grant, from the Pew Course Redevelopment Project, is for development of new, Web-based instructional materials for general chemistry courses. John also was fortunate to attract a postdoc, John Todd, who won one of a very small number of NSF Postdoctoral Fellowships in Science, Mathematics, Engineering, and Technology Education. John Todd received his Ph.D. in biochemistry from Northwestern and is developing Web-based biochemistry tutorials.

At both national ACS Meetings as well as at the MACTLAC Conference, the *Journal of Chemical Education* had a booth, which means John and the other JCE staff get the opportunity to meet and renew acquaintance with a great many people who are connected with UW–Madison. That is always the best part of a meeting.

Dan Rich presented a plenary lecture at the 3rd Lausanne Conference in Bioorganic Chemistry last March in Lausanne, Switzerland. In November, he gave lectures at Technical University at Munich, Carlsberg Research Laboratories in Copenhagen and at SmithKline Beecham Research Laboratories in Harlow UK. He also served as the "Invited Opponent" for the PhD examination of Dr. Johan Hulten at the University of Uppsalla, Sweden. He gave a plenary lecture at the Humphrey Symposium at the University of Vermont. Dan was selected as one of the Associate Editors of the new ACS journal, *Organic Letters*, launched by ACS in July 1999. **Ms. Jane Bielich** is the editorial assistant for the Madison office. Dan was elected to a 3-year term as Councilor for the ACS Division of Medicinal Chemistry.

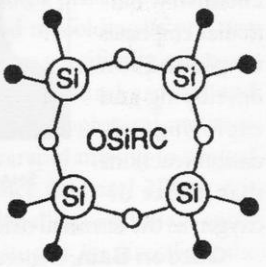


THE INNER WORKINGS OF A SPECTRONIC 20, SHOWN IN VIRTUAL REALITY.

Jim Skinner gave talks at the American Conference of Theoretical Chemistry in Boulder, at a Telluride Workshop, at a conference in Japan on "Condensed Phase Dynamics", and at several universities and other conferences.

During 1999 **Lloyd Smith** attended 3 meetings in Europe, two of which were held in Italy (Florence and Turin) and one in England (at the Sanger Sequencing Center in Hinxton). He also attended a number of domestic meetings, in Orlando (FL), Oakland (CA), Dallas (TX), Princeton (NJ), Henniker (NH), Berkeley (CA), Arlington (VA), and New York City (at the Courant Institute). At most of these meeting he spoke on his group's recent work in using mass spectrometry for the analysis of genetic variations known as "SNPs", or single-nucleotide polymorphisms, as well as on a new approach they have developed for reducing the charge state of large ions produced by electrospray ionization. At the New York meeting, which was for an audience of computer scientists, he spoke on collaborative work with Professor **Robert Corn** on the development of DNA-based computational methods. This year he also finished a four-year stint on the NIH National Center for Human Genome Research Study Section, which is a great relief to be done with.

Last year **Bob West** established a new Organosilicon Research Center within the Chemistry Department, resigning from the teaching faculty to become its director. The center, mainly supported by industries in the United States and Germany, has a mission to carry out fundamental research in order to provide the groundwork for the organosilicon industry ten to fifteen years from now. During this first year of its operation, two patent applications have been filed, one on polysilanes as light-emitting diodes and one on polysiloxanes which complex lithium ions. The latter polymers show the highest conductivity yet recorded for solid electrolytes, and have potential uses in lithium batteries. Internationally, Bob gave lectures in Italy, England, Korea, and Japan this year. In Japan at the International Organosilicon Symposium in Sendai, Bob gave a historical review of thirty years of research on multiply-bonded and low-coordinate silicon. Most challenging for him was a 45-minute address, "Silicon, the Wonder Element: From Sand to Silicones", to the citizens of Kyoto City — in Japanese.



The news from the **John Wright** group for 1999 centers on John's first sabbatical leave in his 27 years at Madison. He went to work with Graham Fleming at UC–Berkeley to learn the tricks of the trade in femtosecond laser spectroscopy. Carol went along and from their little apartment on Ox-

ford Street, they could see the San Francisco Bay and the Golden Gate bridges, albeit from a distance and only if John carefully pointed out where to look. Carol learned Japanese on the sabbatical while John spent all his time in the lab. Not only did they learn new skills, they also became acquainted with the Californian customs. They were helped to adjust to the new culture because many of John's former students and/or colleagues live in California and they helped the adjustment immeasurably. **Rich Saykally** (PhD '77, Woods), a chemistry professor at UC–Berkeley, his wife Kris, and their two daughters live in the Piedmont section of Oakland high on an overlook with a three-bridge view. He taught John how to hunt for Easter eggs in the Oakland mountains. **Al Ramponi** (PhD '86, Wright) and his wife Jane live with their son and daughter in Danville, near Al's job at Livermore, and did a good job of introducing John and Carol to the marvels of California cuisine. Gail and **Mark Valentini** (PhD '84, Wright) live in Petaluma, where Mark has started his own analytical laboratories. Mark also dives for abalone and he and Gail presented a kingly feast of abalone ala Valentini. **Dave Thompson** (PhD '99, Wright) is a post-doc at Stanford; he showed John how to ski at Lake Tahoe. And **Bruce Winker** (PhD '87, Wright) taught them about southern Californian customs when they ventured down to the Los Angeles area. So life in California for the Wright's was very different from the Midwest. It was a great experience, one that was much overdue. From a research point of view, the semester with Graham's group was great. It sparked the development of a completely new direction for John's research program. With the new-found expertise, the group brought in a Spectra-Physics Ti-sapphire femtosecond system that excited two OPA's to generate tunable infrared light throughout the infrared. By the end of the year, John's group had developed a unique ultra-fast four wave mixing system that was completely automated so it could be remotely controlled by computer. The system promises to revolutionize the ideas that the Wright group has developed. In addition, during John's absence, his group did wonderful things. In particular, they acquired the first two dimensional coherent vibrational spectrum. It was an accomplishment that the group has been pointed towards since the project originally began in 1978. There have been countless contributions to the four wave mixing project from many students as the group gradually learned the new technologies. The key break-through occurred when **Wei Zhao**, a postdoctoral student with John, discovered that acetonitrile was an ideal candidate for doubly resonant four wave mixing because it had strong combination bands for the C-N and the C-C stretch modes. The group is now engaged in exploiting the insights to develop the many applications that this new approach offers. Of course, when there are great research results, you get to travel to exotic conferences and locations. This year saw wonderful trips to exotic places including the International Dynamical Processes Conference at the Wyndham resort in Puerto Rico, the International Luminescence and Optical Materials Conference in Osaka, Japan, the Two Dimensional Correlation Spectroscopy Conference in Sanda City, Japan, the Two Dimensional Nonlinear Spectroscopy Workshop in Kobe, Japan, the Electrochemical Society Meeting in Seattle, and the FACSS conference in Vancouver, Canada. Carol put her newly-acquired Japanese language skills to use during the Japanese tours. But the sabbatical is now over and John has returned to normal duties.

Howard Zimmerman was a speaker at the 1999 Gordon Research Conference on Organic Photochemistry where there were 12 of his former students: **Diego Armesto** (PD '75-'77) is at the University of Madrid, **Dietrich Doepp** (PD '65-'67) at Duisburg, **Heinz Duerr** (PD '61-'62) at Saarbrucken, **Rich Givens** (Ph.D. '66) is now Provost at the University of Kansas, **Guil Jones** (Ph.D. '69), **Andrei Kutateladze** (PD '92-'95), **Harry Morrison** (PD '62-'63) is a dean at Purdue, **Peter Olgiby** (UG '76-'77) is now a Professor at the University of Aarhus in Denmark, having moved from New Mexico, **Jim Pincock** (PD '71-'72) is at Dalhousie, **John ("Jerry") Scheffer** (Ph.D. '66) at UBC, **Dave Schuster** (PD '60-'62) at NYU, **Laren Tolbert** (Ph.D. '74) is now Chairman at Georgia Tech and an Associate Editor of JACS. Also **Alex Griesbeck**, a former Visiting Professor now professor at Cologne attended the conference.

GOERING SYMPOSIUM

The 1999 Madison Organic Chemistry Symposium in honor of the inaugural Margaret L. Goering and Harlan L. Goering Visiting Professorship in Organic Chemistry

Reinhard Hoffmann
UNIVERSITY OF MARBURG, GERMANY
"Properties of Molecular Backbones, Flexible with Defined Shape?"

Carsten Bolm
UNIVERSITY OF AACHEN, GERMANY
"Enantioselective Catalysis - With and Without Metals."

Roger Alder
BRISTOL UNIVERSITY, GREAT BRITAIN
"New Chemistry of Stable Carbenes."

POSTER SESSION
PYLE CENTER

Robert McMahon
UNIVERSITY OF WISCONSIN, MADISON
"Reactive Organic Species of Relevance to the Chemistry of Interstellar Space."

Michael Reggelin
UNIVERSITY OF MAINZ, GERMANY
GOERING VISITING PROFESSOR OF ORGANIC CHEMISTRY
"Allyl Transfer Reagents Based on Chiral Sulfoximines and Asymmetric Aldol Reactions: Key Transformations for the Synthesis of Biologically Active Compounds in Solution and on Polymeric Supports."

OTHER NOTABLE NEWS

Eighth Hirschfelder Prize in Theoretical Chemistry

Joshua Jortner received the 1999-2000 **Joseph O. Hirschfelder** Prize in November. Professor Jortner is the author of over 600 papers addressing problems in core areas of theoretical chemistry. We were delighted with his visit, during which he spoke on dynamic, molecular clusters, and charge transfer.

National Organic Symposium

The 36th National Organic Symposium was held in the Memorial Union here on campus in June, 1999. Nearly 900 people from around the world attended the four days of lectures and poster sessions featuring over 300 contributions. Symposium executive director **Steve Burke** organized the event and presented the ACS Roger Adams Award in Organic Chemistry to Professor **Dieter Seebach** from the Swiss Federal Institute of Technology (ETH), Zurich. The July 26, 1999 edition of *Chemical and Engineering News* featured a story about the Symposium, including a description of research by **Sam Gellman** which he presented.

There were ten former **Zimmerman** students who attended the National Organic Symposium here in Madison and then attended a "Zgroup" gathering at the Chemistry Department. These were **Prof. Dave Crumrine** (Ph.D. '71) of Loyola University – Chicago, **Dr. Donald Diehl** (Ph.D. '78) of Eastman Kodak Co. (Rochester, NY), **Dr. Doreen Lynch** (Ph.D. '84) of Eastman Kodak (St. Paul), **Dr. John Munch** (Ph.D. '65) from St. Louis Community College, **Dr. William Ramsden** (Ph.D. '84) of Eastman Kodak (St. Paul), **Prof. Joachim Schantl** (PD '65-'67) of Univ. Innsbruck, **Prof. Lynn Sousa** (Ph.D. '70) from Ball State Univ., **Prof. Laren Tolbert** (Ph.D. '74) from Georgia Tech, and **Dr. Timothy Towne** (Undergrad '87-'88) from Abbott Labs. **Dr. Mike Kellogg** (Undergrad '67-'69) wrote that he was at the Symposium but didn't get to the group gathering due to a downed computer which had the invitation. Mike reports that he is now Director of the Medicinal & Structural Chemistry group at Monsanto.

The John E. Willard Lectures

The 1998-99 John E. Willard Lecturer in the Department of Chemistry was Professor **Robin M. Hochstrasser**, from the Regional Laser and Biomedical Research Center, University of Pennsylvania. Professor Hochstrasser spoke in February 1999 on "Two-Dimensional Infrared Spectroscopy as a Means of Probing the Structures of Peptides and Proteins," and "Vibrational Dynamics in Simple and Complex Systems Revisited with femtosecond Infrared Pulses."

The 1999-2000 Willard Lecturer, who visited the Department in February of 2000, was Professor **Alex Pines** from University of California – Berkeley. His talks were entitled "Lights Up – NMR and MRI" and "Ups and Downs of Spins in Solids."

McElvain Seminar Series

The Samuel M. McElvain Seminar Series continued for 1999-2000 with some prominent industrial and academic scientists visiting the department. This is the 15th year of the seminars, which were originally funded totally from the Samuel McElvain bequest. The seminar series is organized by graduate students and designed to promote discussions between the visiting scientists and the students. The schedule provides an excellent environment for graduate students to interact with academicians and industrialists in small groups. It is a fantastic chance to meet potential post-doctoral advisors or industrial contacts. Often these visitors share wonderful insights into the future of science and the opportunities available to young scientists. This year's speakers included **Prof. Tobin Marks** from Northwestern University; **Dr. Tom Runge** from Pharmacia & Upjohn; **Professor Giacinto Scoles** from Princeton; **Professor J. Fraser Stoddart** from UCLA; **Dr. Chuck Wade** from IBM-Almaden; **Dr. Stanley Williams** from Hewlett Packard; **Dr. Thomas Wood** from 3M.

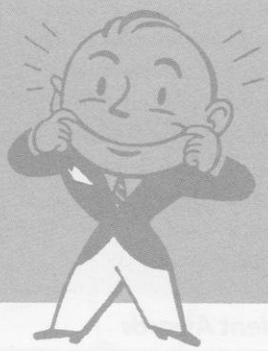
Goering Symposium

The Department inaugurated the Harlan and Margaret Goering Visiting Professorship in Organic Chemistry with a scientific symposium and banquet on October 2, 1999. The visiting professorship, which Harlan was instrumental in initiating over 40 years ago, is an institution that is near and

(continued on page 28 . . .)

OUR AWARDS

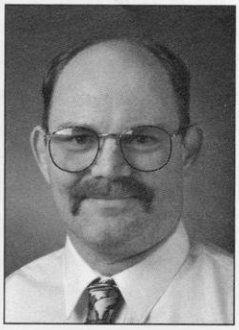
UW Chemists continue to garner distinguished awards.



Larry Dahl received the 1999 Willard Gibbs Medal from the Chicago Section of the American Chemical Society. He was cited for "outstanding contributions in organometallic and high-nuclearity metal cluster chemistry synthesis and structural characterization of nanometer-sized molecules... and for youthful enthusiasm in research and teaching." Larry also won the Chemical Pioneer Award of the American Institute of Chemists.

Tom Foseid and **Mike Wilson** received the UW Police Department's Director's Award for their efforts in trying to revive Gary Beld after he collapsed in the mail room on January 5, 2000 (see obituaries). This award acknowledges outstanding efforts and achievements by citizens.

Bruce Goldade received a 1999 Classified Employee Recognition Award. Five awards were presented in March to the recipients, who were chosen as some of the very best of UW-Madison's approximately 4,800 classified employees. Bruce is the director of duplicating services in Chemistry, and is a major contributor to the smooth functioning of the teaching programs, especially around exam time.



BRUCE GOLDADE

Bob Hamers received a Kellett Mid-Career Award from the University. Bob also received one of the "S.C. Johnson Distinguished Fellowships", an award which includes $25,000 per year for 3 years to support graduate students.

Tony Jacob received the 1999 Norman Bassett Award for Outstanding Achievement in Student Services. This award acknowledges not only his day-to-day contributions over his 8 years at the Chemistry Learning Center, but also his work with larger campus initiatives such as creating a peer mentor tutor program for majors and honors students in chemistry and physics.

Laura Kiessling and **Jill Banfield** received MacArthur Fellowships in 1999. Also called "genius grants," these awards are given each year by the John D. and Catherine T. MacArthur Foundation, to people in all professions who have demonstrated exceptional creativity in their fields.

Bob McMahon and **Sam Gellman** were named Vilas Faculty Associates.

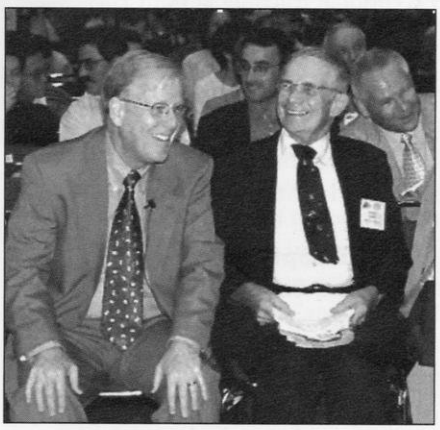
John W. Moore was awarded a W. T. Lippincott University Houses Professorship. This is a great honor and demonstrates the high esteem in which he is held by his colleagues and the University community. The professorship provides support for 5 years starting in July of 2000.

Steve Nelsen was elected as Fellow of the AAAS in September, 1999.

Patti Puccio has received a Career Service Award, for a classified staff member who has retired in the past year with at least 15 years of service in the College of Letters and Science. We announced Patti's retirement in last year's *Badger Chemist*, but she has been unable to stay away from the Department, and has continued in various part time positions.

Ron Raines won the Pfizer Award in Enzyme Chemistry.

Daniel H. Rich won the R. Bruce Merrifield Award from the American Peptide Society in June at the 16th American Peptide Symposium. The Symposium held a special dinner on the occasion. Among the guests were his mother, two sisters, both daughters and their husbands along with UW-Madison friends and alumni **Wayland E. Noland**, Dan's undergraduate advisor at the University of Minnesota, and **Ralph Hirschmann**, now at University of Pennsylvania. In August, Dan was awarded one of the Arthur C. Cope Scholar Awards by the ACS. Ralph Hirschmann won the Cope Award last year also.



DAN RICH AND WAYLAND NOLAND AT THE MERRIFIELD AWARD LECTURE.

Bassam Shakhashiri was recognized as an outstanding professor by the Gamma Phi Beta sorority in March, testimony to the difference he has made at the UW-Madison, specifically to women involved in Greek life.

Shannon Stahl was one of 13 beginning faculty members awarded a Camille and Henry Dreyfus New Faculty Award for 1999. The Dreyfus Awards are given to assist outstanding scientists to realize their promise as educators. The Dreyfus Founda-

tion is interested in evidence of continuing dedication to excellence in education outside the research laboratory.

Hyuk Yu received the 1999 Langmuir Award from the Colloid and Surface Chemistry Division of the ACS. He delivered the Langmuir Award Lecture at the National Meeting of the ACS in New Orleans in August.

Student Awards

Student scholarships are made possible by generous donations from alumni, friends, and companies that recognize the value of awards allowing both graduate and undergraduate students to spend more time on the research which is one of the strengths of this institution. Teaching awards come from a variety of campus and Departmental sources, and recognize the other fundamental mission — exceptional teaching at both the undergraduate and graduate levels. In this section we salute not only the fine students who have worked hard to earn these honors, but also the donors who have made them possible.

Christopher West (Rich) and **Stacy Keding** (Rich; 4th year Medicinal Chemistry) were honored with first and second prize respectively in the poster competition at the 16th American Peptide Symposium in Minneapolis. Over 60 graduate students from around the world were entered in the competition. Stacy and **Dr. Thorsten Oost** won honorable mentions in the Drug Discovery competition.

The seventh annual Celanese Excellence Awards were presented by Susan Houliston at an awards colloquium on September 21, 1999. Award recipients presented short talks on their research. Awardees included: **Eric Breitung** (BS '94, Ill. State U., working with McMahon), **Chris Cheatum** (BS '95, New Mexico, working with Crim), **Jonathan Hodges** (BS '95, Trinity U., working with McMahon), **Sangwook Park** (BS '89, Sogang University, MS '91, Pohang U. of Sci. & Tech., working with Yu), and **Lei Yang** (BS '97, Peking, working with Taylor).

We announced last year that **Courtney Thompson** and **Steve Feldgus** had been selected to be Letters & Science Teaching Fellows. This was the second consecutive year that Chemistry had 2 TAs selected for this teaching honor; **Paul Bonvallet** and **Faisal Syud** were chosen in 1998. They are shown below at the April 1999 reception for new and outgoing TA Fellows.

Several 1999-2000 graduate fellowships were awarded in the department: the Procter and Gamble Fellowship to **Christopher Cheatum**; a Barwasser-Week Fellowship to **Sarah Coulter** (BS '96, Bates College, working with Hamers); and Belle Crowe Fellowships for summer support to **Eric Ball** (BS '93, Illinois, working with McMahon); **Eric Breitung** (PhD '99, McMahon), **Kathleen Meeker** (PhD '99, Ellis), and **Fazila Seker** (PhD 99, Ellis). **Paul LePlae** (BS '96, Michigan, working with Gellman) is in his second year of support by the Kodak Fellowship.

FROM LEFT: ANDE NESMITH (TA FELLOW FROM SOCIAL WORK), COURTNEY THOMPSON, STEVE FELDGUS, FAISAL SYUD, AND PAUL BONVALLET

The Charles Reilley Award was presented this year to **Bryce Nelson** (BA '95, St. Olaf College, working with Corn). **Mark Scalf** (PhD '00, Smith) received the Parr Memorial Award.

The 1999 Chemistry Teaching Assistant Awards were given to **Brett Bodsgard** (BA '94, Carleton College, working with Burstyn), **Ed Fedosky** (Faculty Assistant), and **Kevin Jantzi** (BA '98, Goshen College, working with Reich). These awards are given each year to teaching assistants and faculty assistants who are selected by students and faculty as outstanding teachers. The awards were presented at the Celanese Award Symposium in September.

Undergraduate scholarships presented in 1999-2000 were: the Daniel L. Sherk Award for best undergraduate research, to **Mariah Quinn** (working with Gellman); the Don Brouse Memorial Scholarship to **Adam Fiedler** (working with Reich); Walter W. and Young-Ja Toy Scholarships to **Kendra Frederick** (working with Corn), **Hiroki Hiramatsu** (working with Zimmerman), and **Shaun Lippow** (working with Ediger); Helfaer Scholarships to **Petersen Hasjim** (working with Yu), **Derrick Juengst** (working with Reich), **Margot Paulick** (working with Gellman), and **Nick Stanton** (working with Ellis); the Edward Panek Memorial Scholarship to **Brian Paradise** (working with West); the Mabel D. Reiner Scholarship to **Elizabeth Mengelt** (working with Ellis); the Margaret McLean Bender Scholarship and an anonymous scholarship to **Kimberly Petersen** (working with McMahon); the Wayland Noland Undergraduate Research Fellowship to **Kwok-shing Tang** (working with Zimmerman).

Undergraduates receiving Hilldale Research Awards of $3,000 this year were **Chris Beaudry** (working with Burke), **Fred Boehm** (working with Kiessling), **Sara Borchardt** (working with Kiessling), **Victor Chen** (working with Weisshaar), **Margot Paulick** (working with Gellman), and **Eric Strieter** (working with Zimmerman). The awards are made possible by grants from the Hilldale Foundation and the Wisconsin State Legislature.

Joseph Martinelli received a Pfizer Summer Undergraduate Research Fellowship for studies with Professor Burke during the summer of 2000.

CHEMISTRY EDUCATION ACTIVITIES

MARY SAECKER (NATHANSON, 1994), ASSOCIATE EDITOR, TRACKS ACCEPTED MANUSCRIPTS ALONG THE ROUTE AS THEY NEAR PUBLICATION.

Journal of Chemical Education

The Chemistry Department continues to be home to the *Journal*, with John Moore as editor and an editorial staff of twelve full time (and very busy) professionals.

During 1999, its 76th year of publication, the *Journal* published more pages than ever before. In addition, it converted all subscriptions to automatically include full online access via *JCE Online* (*http://JChemEd.chem.wisc.edu*), thereby more than doubling the amount of information provided to each subscriber.

The *Journal* stands well above any other publication of its kind in the world. Since 1924 it has played a leadership role in chemical education, reporting and archiving all the important work in the field. Both readers and authors span high school through graduate level, all areas of academic and industrial research, and most of the countries of the world. Articles published are of the highest quality, with fewer than 50% accepted, and essentially all of those have been improved significantly by reviewers and editors.

INCOMING MANUSCRIPTS AND THEIR REVIEWS NEED TO BE HANDLED CAREFULLY. ONE OF THE GREAT MANY FILE DRAWERS IS SHOWN; ALL STEPS ARE RECORDED IN OUR DATABASE.

In addition to the receipt, review, editing, and acceptance of manuscripts, the editorial staff handle issue preparation (from file conversion through prepress operations), database management, archiving, promotion and advertising, customer service and support, and research and development. This is for the "print" Journal as well as for JCE Software, JCE Online, and JCE Internet. We also contract for printing and mailing, subscription fulfillment, and an advertising representative (who convinces companies that ads in JCE really sell their product). Covers are designed in collaboration with Betsy True of the UW Department of Medical Illustration.

New during the past year were two initiatives to introduce the *Journal* to a larger audience: our Awards program where JCE Gift Award Certificates can be made available to awardees, ranging from high school or college teachers to graduating students to new faculty. The other is our Journal Ambassador program in which our readers become our ambassadors, showing participants in workshops, regional meetings, outreach programs, and seminars what the *Journal* has to offer them. This program has been met with much enthusiasm and appears to be enormously successful. To become a Journal Ambassador, contact the Journal editorial office; email is especially convenient, *jce@chem.wisc.edu*.

JCE Internet, the part of the publication that publishes only on the Internet, introduced two new columns: "Conceptual Questions and Challenge Problems" and "Mathcad in the Chemistry Curriculum". The things found on JCE Internet are there because they cannot be published in print — animations, dynamic spreadsheets, Mathcad documents, QuickTime movies, *etc.*

JOURNAL COVERS FROM THE PAST COUPLE OF YEARS ADORN ONE WALL OF JOURNAL HOUSE.

JCE Software has published educational software on disks, videodiscs, videotapes, and CD-ROMs since 1988. All fulfillment is done through our offices in the Chemistry Department, and shipments regularly go around the world. From the order desk to the shipping cart, this makes for a busy area, supervised by Lin Morris. Photos that capture some of the dynamism of this part of our operation are shown on the previous page, but all of this will change in the near future. By the time you get the next *Badger Chemist* we will have moved into remodeled quarters.

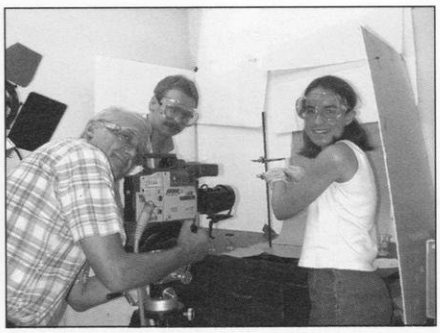
Unusual Student Projects

Four Participate in NASA Program

"Chemical Interactions in a Reduced Gravity Environment" was the title used by four UW–Madison students who participated in the NASA Reduced Gravity Program operated by the Lyndon B. Johnson Space Center in Houston, Texas. The program started in 1959 and provides a "weightless" environment to investigate the reactions of humans and hardware aboard a KC-135A turbojet that flies parabolic arcs to produce weightless periods of 20-25 seconds alternating with 2-g period of about the same length.

In Spring 1999 Paul Focke, Bob Holicek, Jeff Spector, and Maria Spector participated in the program in collaboration with Art Ellis and John Moore and with support from the Institute for Chemical Education. They designed several experiments to be conducted in the microgravity environment with video photography in mind. (The experiments were first thoroughly tested in a UW–Madison lab.) When these experiments were performed aboard the KC-135A there were two strategically placed video cameras in the test bed that were left running during the entire flight so that all experiments could be continuously taped.

An account of their adventures doing experiments in a microgravity environment was published in the July 1999 issue of the *Journal of Chemical Education* (**1999**, 76, 880).



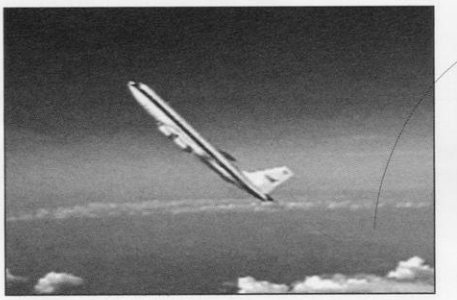
CAPTURING INORGANIC REACTIONS: (FROM LEFT) JERRY JACOBSEN, GORDON BAIN, AND KARA BRUCE.

Capturing Inorganic Reactions on Film

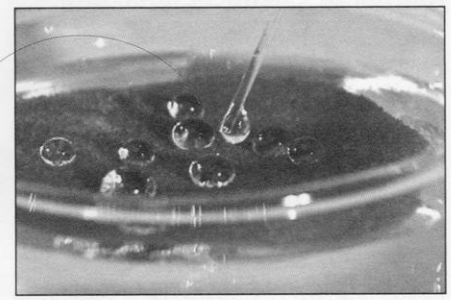
Kara Bruce, a high school junior from the Charleston, South Carolina area, spent a month in John Moore's Chemical Education Group last summer because she was interested in making chemistry videos. She was able to bring that idea to reality!

In collaboration with Gordon Bain, who moved into his new job as General Chemistry Laboratory Director not long before Kara arrived, and Jerry Jacobsen, the group's

THE STUDENT TEAM MEMBERS (FROM LEFT) PAUL FOCKE, BOB HOLICEK, JEFF SPECTOR, AND MARIA SPECTOR, SHOWN ONBOARD THE KC-135.

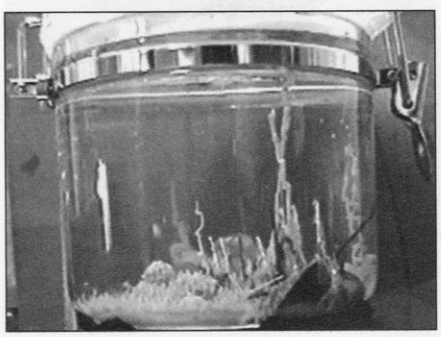


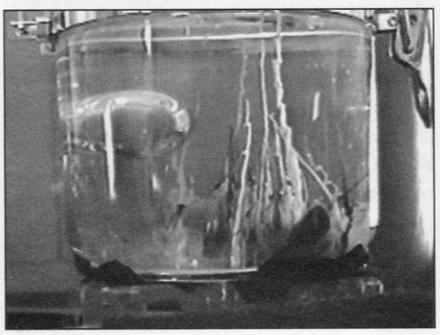
THE KC-135 PLANE SHOWN CLIMBING TO 35,000 FEET. WHEN IT DROPS TO 25,000 FEET, A MICROGRAVITY ENVIRONMENT EXISTS INSIDE THE PLANE FOR 20-25 SECONDS.

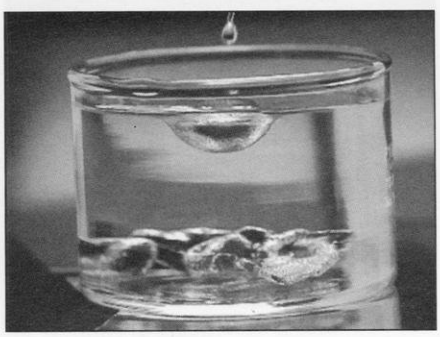


ABOVE & BELOW
QUICKTIME MOVIES OF MAGIC SAND MAY BE SEEN ONT THE JOURNAL'S WWW SITE, *http://jchemed.chem.wisc.edu/journal/issues/2000/jan/abs40a.html.* (VIDEO BY JERRY J. JACOBSEN. USED WITH PERMISSION OF THE JOURNAL OF CHEMICAL EDUCATION.)

ONE EXPERIMENT ONBOARD WAS THE CRYSTAL FORMATION. THE PERIODIC SWINGS OF MICROGRAVITY TO 2-G APPEAR TO HAVE PERMITTED NORMAL GROWTH DURING THE 0-G INTERVALS BUT CAUSED SIDEWAYS GROWTH DURING THE 2-G INTERVALS.





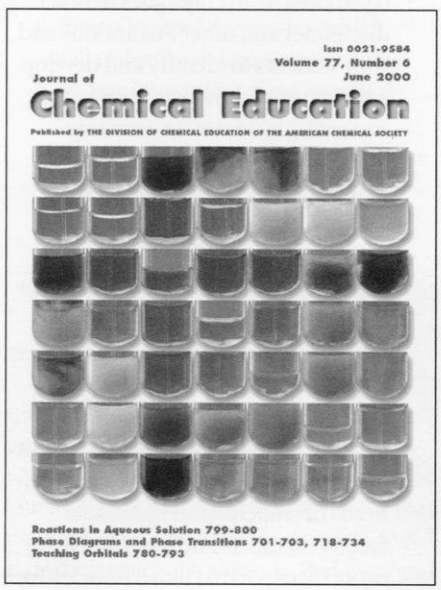


videographer, Kara spent four weeks filming more than 200 chemical reactions (or nonreactions) in aqueous solution. One result was that they produced enough good video footage for publication: Volume 4 of the Chemistry Comes Alive! series published by *Journal of Chemical Education Software*. As a part of the CCA! series, the reactions captured in a small laboratory at UW-Madison will be available to chemistry teachers (and their students) all over the world. A matrix of reactions from this publication appears below — as shown on the cover of the June 2000 issue of the *Journal*.

Sometimes shooting videos of reactions gives results that were not expected. For example, in spite of what the handbooks say about solubility, not all substances that were supposed to precipitate did so, and some solutions could not be made 0.2 M in reagents that should have dissolved. Also, mixing A into B did not always give results identical to those from mixing B into A. Kinetics as well as thermydynamics affects what we observe!

As a project that was entirely her own, John Moore asked Kara to devise a video about magic (hydrophobic) sand and then shoot it. She did so, with stunning results, results which were shown a few weeks later at the opening ceremonies of the ChemEd '99 Conference. The video also became a part of a Classroom Activity for the Journal (January 2000 issue), where the video sequence is published as supplementary material on JCE Online (*http://jchemed.chem.wisc.edu/journal/issues/2000/jan/abs40a.html*).

INORGANIC REACTIONS ARRANGED AS A MATRIX ON THE COVER OF THE JUNE 2000 ISSUE OF THE JOURNAL OF CHEMICAL EDUCATION. COVER DESIGN BY BETSY TRUE, UW-MADISON DEPARTMENT OF MEDICAL ILLUSTRATION.



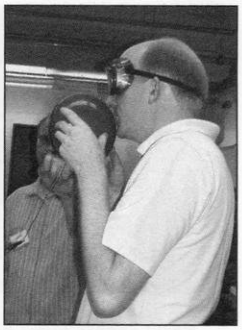
Institute for Chemical Education (ICE)

Under the direction of John Moore and with the help of outreach coordinator Kathleen Shanks, the Institute for Chemical Education (ICE) has continued to be actively involved in chemistry education in the past year.

As it has for the past 9 years, the SPICE outreach demonstration program has continued to expose elementary school children in local schools to the wonders of chemistry in assembly and hands-on programs. ICE ran two teacher development workshops in July, Super Science Connections (SSC) and Chemistry and Materials Science (CMS). Our Fun with Chemistry Camp for middle school children brought 130 kids to the chemistry building to work in laboratories and introduce the 10–13 year olds to the fascinating world of chemistry. In addition, ICE has a new publication for teachers, and two more in the works.

The SPICE program (Students Participating in Chemical Education) brings together volunteer undergrads, graduate students and staff with the goal of presenting exciting chemistry to local school children. The program travels to schools, libraries, and other groups within a 2-3 hour radius of Madison to perform programs for groups as small as 10 and as large as 400. SPICE performs an average of 50 shows per year, and reaches approximately 5000 students.

PAUL SCHATZ, GARY TRAMMELL, AND JOHN MOORE HARD AT WORK AT THE GRILL DURING DEMOS ON THE LAWN.



CMS PARTICIPANT TESTING MICROPHONE MADE FROM PIEZOELECTRIC STRIP AND BALLOON.

ICE's professional development program remains active, as we hosted 50 additional enthusiastic teachers this summer. The SSC program brought K-5 teachers from Wisconsin together for 2 intense but fun weeks to learn physical science background and activities integrated into a curriculum that included science, math, children's literature, and other connections. This workshop, taught by a group of 4 award-winning elementary teachers from around the country, was funded by the Eisenhower Professional Development Program. The CMS workshop, now in its second year, attracted high school chemistry and physics teachers looking for real-world, state-of-the-art applications to the science they teach. This three week NSF-funded workshop involved lecture, lab work, and activity sessions. The

CELESTE BUNTING, SSC INSTRUCTION, SHOWING HOW SHE CAN FLY AT DEMOS ON THE LAWN.

TERI LARSON, CHEM CAMP LEADER, AND CAMPER DISCUSSING EXPERIMENT.

KATHLEEN SHANKS AND SARAH MOLINE MAKING ICE CREAM WITH LIQUID NITROGEN FOR THE SSC PARTICIPANTS.

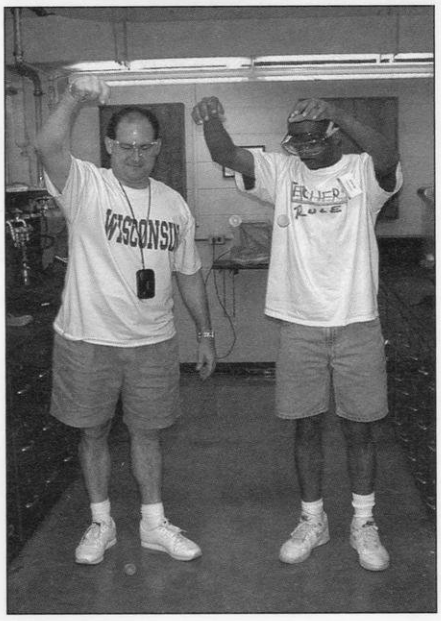
CMS PARTICIPANTS SIMULATING ELECTRON MOTION IN A SOLID CIRCUIT BY PASSING RACQUETBALLS.

participants worked in groups to develop curriculum units based on materials science topics. These units will be compiled in a publication that ICE will make available, so that teachers unable to attend the workshop will be able to use these units in their classrooms. At the end of this year's workshops, all of the participants and staff gathered at John and Betty Moore's Frank Lloyd Wright house, which provided a wonderful backdrop to ICE's annual Demos on the Lawn party. We would be remiss if we didn't mention Sarah Moline, our summer Instructional Specialist, whose organization and hard work made the workshops run without a hitch.

ICE continued its collaboration with Art Ellis's group in developing classroom kits for teachers. *The DNA Optical Transform Kit* is now available from ICE. This kit allows teachers and their students to simulate the x-ray diffraction experiment that led to the discovery of DNA's structure. Currently in the works is the *Amorphous Metal Kit*, which will be available soon. This kit consists of two metal bases — one stainless steel and one made of an amorphous metal called Vitreloy™, which is currently being used in high-end golf clubs. Dropping ball bearings through a tube onto both surfaces results in a startling difference in energy transfer. Check out *http://mrsec.wisc.edu/EDETC/amorphous/* for more information about this fascinating phenomenon.

In addition to running camps, workshops and outreach programs here in Madison, the ICE staff has been busy presenting at education conferences around the country. In March, ICE was represented at the National Science Teachers Association (NSTA) convention in Boston. We ran into a lot of past workshop participants and held a reunion dinner to reunite old friends and to make some new connections. In late July, we traveled to Fairfield, CT to attend the ChemEd '99 conference. John and Kathleen presented a 3-hour workshop based on ICE's materials science kits and the CMS program. Kathleen assisted the SSC instructors in presenting a 3-hour version of our SSC workshop, and Kathleen held a discussion session for high school and college teachers interested in starting their own traveling demonstration program. Early August brought yet another conference, the New England Association of Chemistry Teachers' (NEACT) yearly meeting. Their topic this year was Materials Science, and Kathleen flew back to Boston to present another workshop based on the CMS program.

TWO CMS PARTICIPANTS TESTING THE BOUNCE OF THEIR SUPERBALLS.



Finally, we'd like you to know that ICE has updated its web site address. The correct address is now *http://ice.chem.wisc.edu.* Please update any links or bookmarks. If you have any questions about any ICE workshops or publications, check our website or contact us and we would be happy to send information to you.

New Traditions Project: Winding Down Or Just Getting Started?

The five-year first life of the New Traditions Project has come and gone faster than any of us could have imagined. Our vision, as we began this project, was a lofty one: to establish and disseminate a coherently linked set of alternatives to the format of conventional chemical education. We identified four intermediate stages that could allow us to reach this goal:

- collaborate with colleagues in other disciplines and other institutions and with students to identify and develop a variety of new models, approaches, materials, and tools for assessing students' progress and that will lead to improved learning, retention and understanding;
- carry out a series of curricular experiments at all course levels and at a variety of institutions that will integrate reforms with the best aspects of our current curriculum and rigorously evaluate the results;
- package proven innovations into units that can be individualized to meet the needs of students and individual faculty members and that can be easily incorporated into a broad range

of institutions and chemistry programs;
- develop a dissemination process by which curricular and pedagogical reforms created at one institution can be adapted by a variety of others in ways that support continuing incremental improvement and reward both creators and adapters.

We also chose to concentrate our efforts in five curricular areas:

1. *Student-Focused Active Learning* – where students actively participate in the learning process and faculty provide a supportive, cooperative, and more authentic learning environment that expects high standards of excellence;
2. *Guided-Inquiry/Open-Ended Laboratories* – where students actively engage in the scientific method of discovery by designing their own experiments and testing hypotheses by further experimentation;
3. *Interdisciplinary Course Clusters* – which encourage students to begin to make connections between chemistry and other disciplines and to break down the "compartmentalization" of knowledge;
4. *Topic-Oriented Approach* – which will utilize "real world" topics to test the hypothesis that most chemical concepts can be taught and embedded within topics that relate to common experiences of students from diverse ethnic, geographic and socio-economic backgrounds;
5. *Information Technology: Computer Tools* – which will seek to define effective uses of these tools and to integrate them into courses at all levels of the curriculum.

We quickly curtailed our efforts in the fourth area when it became apparent that the Modular Chemistry Consortium (MC^2 at the University of California, Berkeley) and ChemLinks (at Beloit College) Coalition were concentrating their efforts in this area. Nevertheless, we produced two critically acclaimed modules — Buckyball, Diamond and Graphite, and HIV Protease and AIDS — that relate cutting-edge chemistry to real-world interests of students and faculty.

Our ChemPages CD of laboratory procedures has been peer-reviewed and will appear in the next issue of *JCE Software*. It will be commercially available through the *Journal of Chemical Education* within the next few months. A spin-off of this activity is the ability to digitize chemical demonstrations, especially those that cannot be done safely in a lecture hall, and to merge these videos with text to produce tutorials, quizzes, and on-line critical thinking exercises. The first example of this, **David Whisnant's** (PhD '70, Hirshfelder, now at Wofford College) set of Multimedia Problems, will also appear in *JCE Software* later this year.

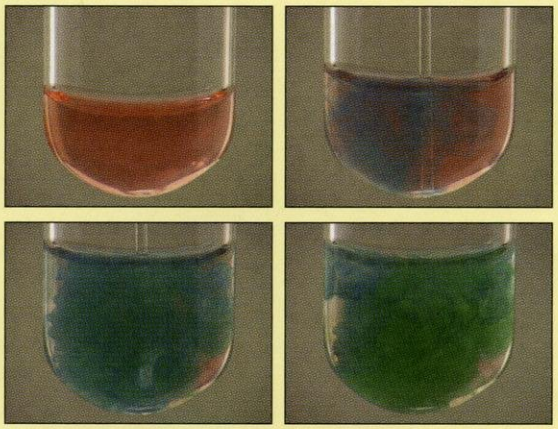
As described in previous articles in the *Badger Chemist*, we have focused on developing innovative strategies to produce a transformation from faculty-centered teaching to student-centered learning. The first three areas shown above are the vehicles that we've used to bring about this nascent revolution. But this revolution has not and will not come quickly. Chemistry instructors, like most of us, are resistant to change — some more so than others. The key element in all of our innovations is that they do no have to be adopted quickly or all at once! As we often say during our workshops, "If you're going to test the water, don't use both feet." We have made substantial progress toward our goal of "establishing and disseminating a coherently linked set of alternatives to the format of conventional chemical education" by offering faculty an opportunity to change at their own pace — to adapt our innovations to their own teaching styles and, more important, to their students' learning styles.

The workshop dissemination model we've adopted is proving to be an excellent way of introducing interested faculty to NT innovations. We have conducted ten workshops in the past year, literally from coast to coast. A new dissemination vehicle will soon be available: we have entered into an agreement with Prentice Hall, Inc. to distribute our ConcepTest videotape and booklet through their marketing representatives. We will also serve as headquarters for a new consortium of the five systemic reform projects that will engage in joint dissemination efforts over the next three years. The National Science Foundation has generously funded this new initiative with a grant of $1.1M.

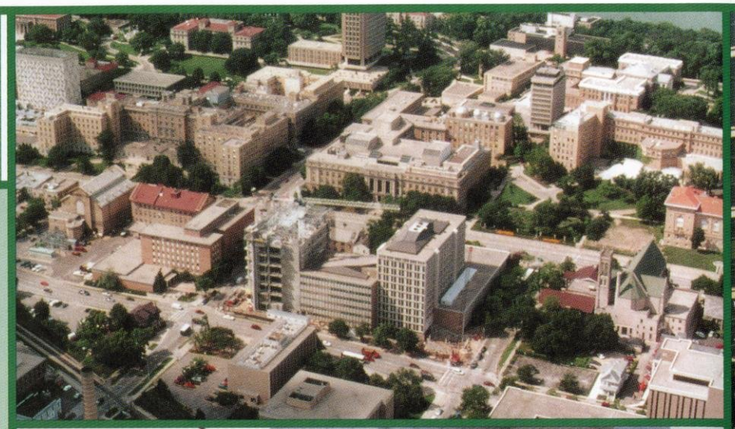
As we move forward into this new dissemination phase, we invite interested alumni to contact us about hosting a dissemination workshop. The workshops are usually held in a Friday- Saturday format to make it easier for faculty to participate. There is little or no cost to the host institution: we need only a few classrooms and access to a computer lab. For more information, contact Dr. G. Earl Peace Jr. at (608) 262-8647 or by E-mail at *gpeacejr@facstaff.wisc.edu.*

CHEMISTRY COMES ALIVE!

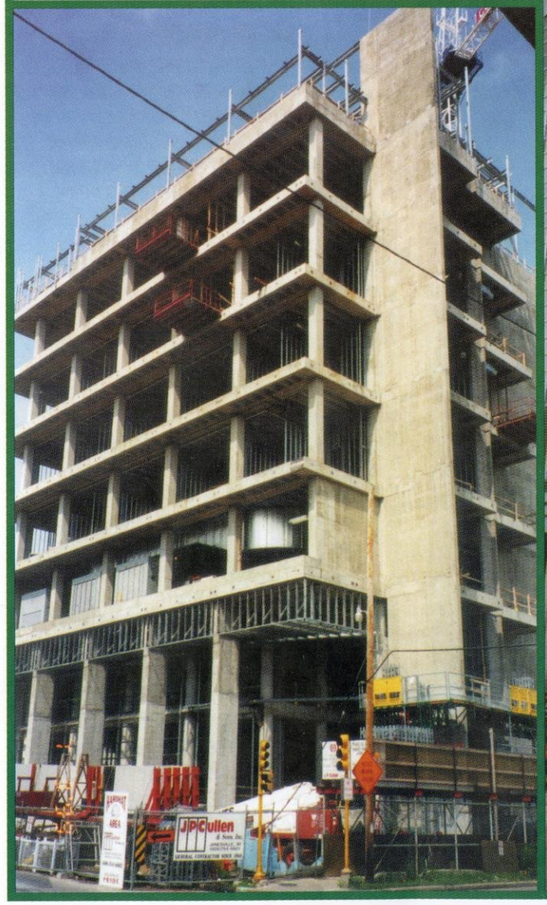
A sample of still images from Chemistry Comes Alive! IV: the reaction of CoCl and NaOH. Of course the reactions are also shown as movies on the CD-ROM. (Video by Jerry J. Jacobsen. Used with permission of the Journal of Chemical Education.*)*

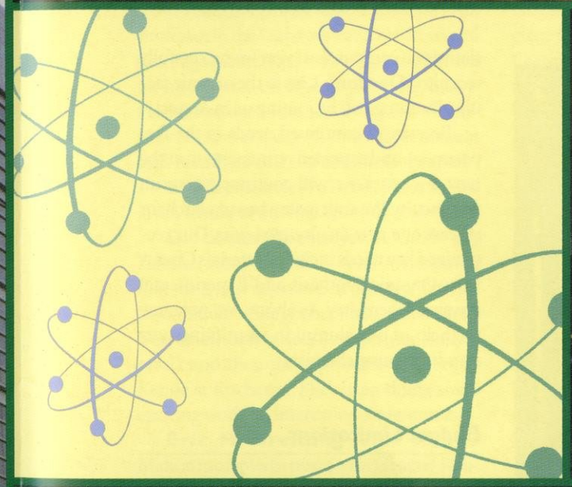


The Tower Rises



Seminar Hall





Takes Shape

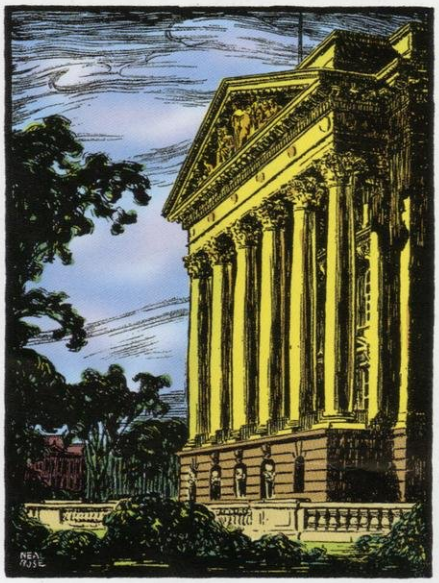
THE OVERVIEW

During the last year, planning for occupation of the new building has been in the forefront of activities in the Department; the dedication will be held on September 15. New faculty have enhanced the academic life of the Department. At the same time budget constraints have made us all aware of how difficult it is to maintain "the margin of excellence."

Building Addition and Renovation

The new building is nearing completion, and will be occupied by the time you read this. We have waited a long time for this addition, and its completion is a tribute to the many faculty, staff and generous alumni and friends who have donated their time and financial support to make it possible. The addition contains excellent new synthetic labs, offices and support facilities for nine research groups and eighty researchers; new facilities for the Department's mass spec and x-ray instrumentation; plus an administrative suite on the first floor. The labs were designed with student offices adjacent to rather than in the labs, and this approach will be continued in the remodeling phases of the Daniels and Mathews buildings. Although this uses more space, it will provide a safer working environment for our students. Meeting rooms on each floor have been designed to encourage interactions both formal and informal between the researchers using the space.

As the research tower nears completion, construction on the seminar hall in the southeast corner of the block continues. This will provide a modern facility with audience internet connections and excellent audio-visual equipment. The hall will be finished about December 2000, and will be used for seminars and some upper level classes during the Spring semester.



Dedication of the new building is scheduled for the weekend of September 15-17, so mark your calendars now if you'd like to return for this exciting event.

Faculty Additions and Recruiting

During the past year, the Department has added five outstanding new faculty members (see Arrivals on page 2). This was in part a response to retirements and departures, but was also due to the Department's participation in new cross-disciplinary initiatives on campus. Last year we successfully recruited **Daesung Lee** to the organic faculty. Daesung will be joining us in August.

Because of continued needs in the Department, and expected retirements over the next few years, we will continue to recruit new faculty. We anticipate a broad search for at least one new faculty next year. Our recognized key needs include Materials Chemistry, Organic Synthesis and Experimental Physical Chemistry. As always, we welcome the help of our alumni in identifying outstanding young chemists.

Budget Limitations

Our financial commitments to the new building and faculty start-up packages, combined with continued efforts to attract the best students to Wisconsin and provide them with an outstanding research environment while they are here, have strained our discretionary funds. We are making every effort to economize in non-critical areas, but we have reluctantly decided to start charging faculty grants for shop and spectroscopy services that support their research. Faculty committees put in long hours of discussion to determine equitable charges for research services. We have tried to keep charges to a minimum based on projected budgets, and our charges remain lower than many peer institutions.

THIS 'N' THAT

Dr. Igor Alabugin (PD '99-'00, Zimmerman) has accepted an Assistant Professorship at Florida State University.

Titular Professor **Diego Armesto** (PD '75-'77, Zimmerman) was promoted to Full Professor at the University of Madrid several years ago. Armesto is internationally known for his research on organic photochemistry. He has become Head of the Organic Chemistry Section at Madrid, with 30 permanent staff members and 100 additional people.

Si Blackstock (PhD '85, Nelsen) was given tenure at the University of Alabama.

Dr. Susan Boettcher (UG '73-'75, Zimmerman) sent an E-mail mentioning that she is now a Senior Scientist II at Bristol-Myers Squibb. She got her Ph.D. with **Marty Semmelhack** (also a Zimmerman undergrad) and then did a postdoc with Andy Kende at Rochester. She's been doing some exciting work on interesting compounds.

Eric M. Breitung (PhD '99, McMahon) accepted a position at General Electric Corporate Research Laboratories in Schenectady NY.

We've learned that **Pedro Campos** (PD '80-'82, Zimmerman) is now a Full Professor in the Chemistry Department at the Universidad de la Rioja in Spain.

Brian Coppola (PhD '84, Trost) received one of two 1999 Amoco Foundation Faculty Teaching Awards from the University of Michigan in October.

Sergei Egorov (PhD '96, Skinner) came back to Wisconsin as a postdoc after a break as a postdoc at Columbia, and is now at the University of Virginia as an Assistant Professor.

Ryan L. Fimmen (MS '98, McMahon) is pursing graduate studies in the Nicolas School for the Environment, Duke University.

Ken Fivizzani (PhD '81, Treichel) was recently promoted to Technical Director, Global Research Safety and Training, at Nalco Chemical Company in Naperville, IL. He continues to serve as the Chemical Hygiene Officer for Nalco and for Nalco/Exxon Energy Chemicals in Sugar Land, TX. Ken is the 2000 Chair of the ACS Division of Chemical Health and Safety and sits on the Board of Editors of Chemical Health and Safety. He is also Chair of the Industrial Research Institute (IRI) Environmental Health and Safety Directors' Network. Ken's wife, Mary (BS Pharmacy, '83), is a pharmacist at the Good Samaritan Professional Building in Naperville.

Prof. Han-Werner Fruehauf (PD '70-'73, Zimmerman) of the University of Amsterdam has written that research has been going well with a large number of publications in inorganic chemistry, his field now.

Dr. Peter Glunz (PhD '97; Rich) joined DuPont Pharmaceuticals in Wilmington, DE.

Prof. Gary Grunewald (PhD '66, Zimmerman) writes that he is in the 6th year of his second 5 year term as department chair of the Pharmaceutical Chemistry Department with an agreement to do this on a year-to-year basis. Gary's research has been active with 8 full papers and two communications in 1999. He has also been Chair of the ACS Med Chem Division. Gary also reminisces about his days at Wisconsin, his barrelene synthesis and his classmates.

Prof. Joe Hornback (PD '68-'69, Zimmerman) of the University of Denver writes that he was promoted to Full Professor last year and also sent us his E-mail address (*jhornbac@du.edu*).

Dr. James Janetka (PhD '96; Rich) is at Vertex Pharmaceuticals.

Russ King (PhD '85, Zimmerman) writes from Dow Corning regarding his experience at Wisconsin indicating that the research here was a real asset. He is now in the Expertise Center of the Process Engineering Department and is doing some rather exciting pioneering research. It is a "good blend of experimental and theoretical work".

Susan Klein (PhD '94, Nelsen) has moved to Manchester College in Indiana.

Stan Kosiewicz (PhD '73, Haskin) reports a career achievement. He was the principal investigator to chemically confirm that the first shipment of transuranic waste from Los Alamos national Laboratory (LANL) met existing regulatory requirements for disposal at the Waste Isolation Pilot Plant (WIPP) in southeastern New Mexico. The data from his project allowed LANL to be the first DOE site to ship transuranic waste (in March 1999) to the world's first licensed nuclear waste repository (the WIPP). This was both a national and global achievement in nuclear waste management! Kosiewicz credits his ability to successfully lead this historic project to the training and discipline in analytical chemistry he received from the University of Wisconsin and University of Illinois (BS '67). His team received several 1999 major awards for its accomplishments — LANL Distinguished Performance Award, DOE Excellence Performance Award, and a nomination for an Al Gore Hammer Award (pending). Further, Kosiewicz presented a paper on his project at the National Waste Management Conference '99 in Tucson, AZ, where he won first place in the competition of over 400 technical talks for best presen-

tation of the conference. Kosiewicz credits two other Badgers with playing significant roles for WIPP. **Wendell Weart** ('57) of Sandia National Labs led the scientific effort for many years to prove that the WIPP repository was a suitable location for transuranic waste disposal. **Steve Goldstein** (Sandia, PhD '75, Walters) was a deputy manager to Weart for several years. Kosiewicz invites his Badger colleagues to keep in touch with him at *stan@lanl.gov.* Finally, he enjoyed being at the 1999 Rose Bowl, where the Wisconsin Badgers bruised the UCLA Bruins 38-31.

Dennie Kreil (PhD '81, Zimmerman) writes from Dow in Midland, MI, that he is now Sr. Resource Leader for Chemical Process Development in Dow's Contract Manufacturing Services involving developing processes for mainly pharmaceuticals and working on a wide range of chemistry.

Brian Laird (PD Skinner) recently received tenure at the University of Kansas.

Prof. R. Dan Little (PhD '73, Zimmerman) of the University of California – Santa Barbara has been Chairman of the Chemistry Department there but will finish his stint next July. The entire Little family stopped in to visit this last fall during a visit to family in Superior, Wisconsin.

Prof. Ron McKelvey (PhD '70, Zimmerman) at the UW–LaCrosse reports that **Maurie Oehler** has retired from Prairie du Chien High School. In other news he notes that **Dr. John McCall** (PhD '70, Zimmerman) now is part of Pharmacia-Upjohn (formerly with UpJohn) and is serving a year or two in Sweden.

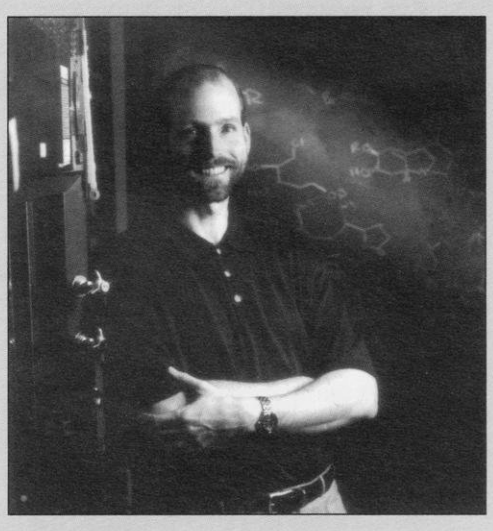
Neil Moe (PhD '97, Ediger) is now employed by Osmotics, Inc. in the Minneapolis area.

Dr.Thorsten Oost (PD '99, Rich) presented a lecture on his work to develop inhibitors of Botulinum Metalloproteases at the International Toxin 99 Conference & IBRCC meeting in Orlando in November. He joins Abbott Pharmaceuticals this year.

Prof. **Albert Padwa** of Emory University (PD '62-'63, Zimmerman) has received two honors recently. He is President-Elect of the ISHC (International Society of Heterocyclic Chemistry), and also received the prestigious ISHC award. In his award lecture, Al related how he started his career and reminisced about his NSF Postdoctoral Fellowship at Wisconsin.

Eric Patterson (PhD '96, McMahon) writes that after a year as a sabbatical replacement at Grinnell College, he has assumed a tenure-track position as Assistant Professor of Chemistry at Truman State University in Kirksville, MO.

William Pearson (PhD '82, Trost) received a 1999 Faculty Recognition Award from the University of Michigan in October. Professor Pearson has published over 75 articles in organic chemistry.



WILLIAM PEARSON

Stan Polichnowski (PhD '77, Casey) was the spotlighted ACS member for the Winter 2000 edition of *Chemistry*. Stan was pictured with his Harley and his work at Eastman Chemical was profiled.

Witta Priester (PhD '75, West) dropped a note to say hi. She and **Dick Baughn** (PhD '76, O'Leary) have retired, sold everything (pretty much) and are now traveling the world. They spent 3-months in NZ earlier this year. Check out their travel website at *www.dickandwitta.com*, or send them an e-mail at *witta@aol.com*.

Amy Ripka (PhD '99, Rich) writes: I am finally finishing up at Scripps and heading out for a job at Bristol-Myers Squibb in Wallingford, CT. I'm starting in April and really looking forward to it. It's got great people, projects and location, about equidistant from NYC and Boston. Plus, I'm originally an East Coaster and miss all the good seafood! I hope all is well at Madison. I see fellow Madisonians now and then. I caught up with **Chris O'Donnell** (PhD '97, Burke) when I was at Pfizer and also hear from **Eckart Beutenmuller** (MS '95) now and then who's at Bayer.

Jeff Robbins (PhD '74, Zimmerman) writes from Zeneca in California sending his E-mail address to the Zgroup. He mentions that his classmate, **Gerald Lisowski** (PhD '75, Zimmerman) now is in the computer business with Scientific Software, in Pleasanton, California.

Dr. Jess Sager (UG '90-'91, Zimmerman) writes "I am still with the Process Research Department here at Merck. I have been with the Automation Group here now for almost three years and have seen it grow from one person (me!) to four people. It's an area that's really taking off, and I'm enjoying myself immensely."

Prof. **Joachim (Josh) Schantl** (PD '67-'69, Zimmerman) of the Chemistry Department of Innsbruck, Austria came to Madison to participate in the Goering Symposium. He brought his wife, Eva, with him. Both are old friends who particularly like Madison. Josh recently has been appointed Vice Dean at Innsbruck.

Alex Scheeline (PhD '78, Walters) was featured in the Nov. 7, 1999 issue of *Parade Magazine*, in an article by David Levy in honor of National Chemistry Week.

Dr. Michael E. Solomon (PhD '97; Rich), **Dr. Natalie E. Dales** (PhD '97; Rich) and **Dr. Prakash Raman** (PhD '97; Rich) are all senior chemists at Millennium Pharmaceuticals Cambridge MA.

Dan Steffek (PhD '82, Nelsen) is now teaching at UW-Platteville.

Dr. Eric Stoner (UG '84-'86, Zimmerman) writes from Abbott Labs that he is now has a title of Research Investigator and is working on pharmaceutical chemistry. He gets to Madison once or twice each year for recruiting.

Louise L. Stracener (PhD '98, McMahon) accepted a faculty position at Edgewood College.

Paul Sutton (PhD '67, Dahl) sent a much-appreciated donation to the Chemis-

try Building Project, and updated us on his activities. He retired in June of 1998 after 36 years as a Professor at North Central College in Naperville, IL. In June 2000 he will complete his second (and final) half time year which was part of his early retirement package. He is looking forward to continuing his research on molecular basis functions for computational quantum chemistry, as well as writing a "laboratory" manual for quantum computations using the Maple computer algebra system.

Charles Templeton (MS '47, PhD '48, Hall) was named to the Bascom Hill Society. The Department is very grateful for his $10,000 gift, with a $10,000 match from Shell. He says, "I am staying active in retirement buying and selling stamps and coins."

Prof. B. S. Thyagarajan (PD '58-'60, Zimmerman; PD '60-'61, W. S. Johnson) of the University of Texas – San Antonio wrote that he is retiring this year. He has published over 100 paper and several books and chapters. At the University of Texas – San Antonio he founded the Division of Earth and Physical Sciences in 1974.

Dr. Roger Tung, (PhD '87, Rich) was promoted to Vice President for Chemistry at Vertex Pharmaceuticals in Cambridge MA.

Tammy L. Turek (BS '94, McMahon) received her Ph.D. in organic chemistry from the Univ. Minnesota (with Mark DiStefano) and accepted a position at the Schering-Plough Research Institute.

Three former Zimmerman students, **Dr Greg Wagner** (UG '64-'65), **Dr. Doreen Lynch** (PhD '84), and **Dr. Bill Ramsden** (PhD '84) have transferred to Eastman Kodak (Health Imaging Division) as a result of a 3M "Spin-off". **Greg Wagner** visited the Department recently.

Chia-Ying Wang (PhD '99, Ediger) is now a postdoc with **Tim Lodge** (PhD '80, Schrag) at the University of Minnesota.

Jiambo Wang (PD '94, Zimmerman) writes from Beijing that he has been promoted to Full Professor and appointed as the director or the organic chemistry division in the Chemistry Department of Peking University.

Patricia Wang (PhD '92, Zimmerman) writes from the Hewlett-Packard company in Corvallis, Oregon to report that her research there seems to be particularly interesting and exciting. She remembers knitting a Moebins scarf for her research adviser (actually this was done on Sundays).

Andrew Weber (PhD '88, Zimmerman) has written that in June he accepted a new position at DuPont; he is in charge of global marketing and product management world-wide. Thus Drew will be doing a modest amount of traveling. He is now located in Research Triangle, N.C. Drew and his wife Chris now have three children — all in school. Chris does a lot of volunteer work in addition to running the household.

Dr. Tom Welter (PhD '79, Zimmerman) recently wrote about things at Kodak in Rochester and mentioned that he sees some of his Wisconsin colleagues fairly often: Zimmerman PhDs **Nick Roberts**, **Chuck Wright** ('91), **Don Diehl** ('78), **Tim Cutler** ('77), **Ronda Factor** ('80), and **Fred Albrecht** (PD).

Dr. Dieter Werthemann (PD '71-'73, Zimmerman) who has been with Ciba Geigy for 26 years has moved from the German location back to Basel. He is part of the company's "Global Research Council". He still remembers the old days when the Zgroup went to the Brathouse for lunch. He also is now a member of the Basel City Parliament.

Christopher West (Rich Group) presented a lecture on "Design and Synthesis of Type-III Peptidomimetic Inhibitors of Aspartic Proteases" at the 2nd International Conference on Protease Inhibitors in December in Gainsville FL. The paper was also co-authored by **Matt Bursavich**.

NEW BADGER CHEMISTS

PHD

May 1999

OLAFS DAUGULIS *(Vedejs)*
"Enantioselective acylations catalyzed by chiral phosphines"

TIMOTHY JON GRIFFIN *(Smith)*
"Genetic analysis by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry"

JEREMY JUDE HANS *(Burke)*
"The design, synthesis, and study of a preorganized triphosphonate macrolide ionophore: and, the one-pot synthesis of amides and esters from 2,2,2-trihaloethyl esters using phosphorus (III) reagents"

JENNIFER SUE HOVIS *(Hamers)*
"Cycloaddition chemistry on 2x1 reconstructed surfaces"

MARK FREDRIC REYNOLDS *(Burstyn)*
"Studies on the mechanisms of activation of no-sensing soluble guanylyl cyclase from bovine lung and co-sensing CooA from Rhodospirillum rubrum"

JENS GUNTER STEINMANN *(Kiessling)*
"Halocyclization reactions: a new approach to the synthesis of cyclic sulfates"

August 1999

ERIC MICHAEL BREITUNG *(Mcmahon)*
"Structure-property relationships of second-order organic nonlinear optical molecules"

DAVID LEE DAUGHERTY *(Gellman)*
"Investigations into protein-protein Interactors"

TIMOTHY KEMP FIRMAN *(Landis)*
"A valence bond description of transition metal bonding"

ANTHONY GLENN FRUTOS *(Corn)*
"DNA computing on chemically modified gold surfaces; and Near infrared Fourier transform surface plasmon resonance spectroscopy"

WAYNE STEWART GOLDENBERG *(Reich)*
"I. The effects of Intramolecular Chelation on Aryllithium Reagents."
"II. Configurational stability of Organolithium Reagents"
"III. The mechanism of the Peterson Olefination"

QINGHUA LIU *(Smith)*
"Manipulation of Oligonucleotides Immobilized on Solid Supports-DNA Computation on Surfaces"

KATHLEEN MEEKER *(Ellis)*
"Interactions of Alleanolamines and DNA Bases with CdSe Surfaces and implications for chemical sensing"

HAIHONG NI *(Record)*
"Theoretical and Experimental Studies of Coulombic Effects of Salt on DNA"

JOEL ANDREW OLSON *(Ellis)*
"Using the top of a scanning tunneling microscope to pattern the cleaved (1120) CdSe Surface"

GEOFFREY WILLIAM REYNOLDS *(Taylor)*
"Motrology, Origins, and control of top surface and sidewall roughness in chemically amplified resists"

HEATHER ELIZABETH STANGER *(Gellman)*
"Sequence-dependent contributions to ß-hairpin stability & investigations of cooperativity in ß-hairpin folding"

MARK ALAN WENDT *(Casey)*
"Experimental and Theoretical Studies of Molecular and Supramolecular Structure and Dynamics in Liquids"

December 1999

ION CRISTIAN ABRAHAM *(Woods)*
"Infrared Absorption Spectroscopy of Neutral Fragment Molecules and Other Species in Halocarbon Plasma Discharges"

MAUREEN ANN FAGAN *(Casey)*
"I. Kinetics and Thermodynamics of Alkene Binding in d^0 Yttrium-Alkyl-Alkene Complexes"

"II. Mechanism of the Reversal of Enantio-Selectivity in the Platinum-Catalyzed Hydro-formylation of Styrene"

ZHENGDONG FEI *(Smith)*
"Single Nucleotide Polymorphism Analysis by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry"

JENNIFER FISHER KLEIN *(Casey)*
"I. Kinetics and Thermodynamics of d^0 Yttrocene-Alkyl-Alkene Complexes"
"II. Reaction Rates of Alkenes with $CP_2YH(THF)$"

SANGWOOK PARK *(Yu)*
"Interfacial properties of Polyester at the air/water and oil/water interfaces"

GEOFFREY MICHAEL SAMETZ *(Burke)*
"Total Synthesis of 3-deoxy-D-Manno-2-Octulosomic Acid (KDO) and 2-deoxy-ß-KDO"

FAZILA SEKER *(Ellis)*
"I. Cadmium Selenide Photo-luminescence as a probe of Poly (acrylic acid) Adsorption"
"II. Chemical Structure-Property Relationships in a Series of Poly (N-Alkylacrylamide) Hydrogels"

SUZANNE SARA STOKES *(Rich)*
"New methods for the Synthesis of Biologically Active Cyclosporins"

JENNIFER LEIGH THOMPSON *(Reich)*
"I. Structure and Reactivity of Chelated Organolithium Reagents"
"II. Application of the Equilibrium Isotope effect to Organolithium Reagents"

CHIA-YING WANG *(Ediger)*
"Spatially heterogeneous dynamics in Super Cooled O-Terphenyl and Polystyrene Melts"

QIAN ZHAO *(Burke)*
"Design Synthesis and Studies of Preorganized Macrocyclic Ligard"

MS

August 1998

MICHELE RENEE RICHARDS *(Gellman)*

December 1999

DON LEWIS WARNER *(Vedejs)*

May 1999

AMANDA KATHRYN GILMAN *(Kiessling)*
AMY KATHRYN MELVIN *(West)*
ERVIN DENNIS WALTER *(Vedejs)*

August 1999

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KEVIN EDWARD GENTILE *(Vedejs)*
CHRISTIAN PETER HACKENBERGER *(Gellman)*
ALAN JAMES HIGBEE *(Treichel)*
PATRICK GEORGE VOTRUBA *(Hamers)*

December 1999

ERIC STEPHEN BALL *(McMahon)*
GEORGE NATHAN CAUCUTT
TERRY LEE GRANEC *(Weisshaar)*
CHRISTOPHER GLAAB HUNT *(Wright)*
TRISTAN MARK KYSELY *(Brown)*
RUIPING ZHAO *(West)*

BS & BA

May 1998

LECH LEE NAUMOVICH

December 1998

TRAVIS CODY O'CONNELL

May 1999

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DUSTIN J MALY
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YUKIKO MUROI
WOO-HAENG PARK
MARIAH ANNE QUINN *(With Honors)*
ALEXANDRA MARIA SCHNOES *(With Honors)*
RYAN JAMES STEFFES
ANDREW GORDON WERNER
KERRY ANN ZOBEL

August 1999

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YUSUKE NAKAE
STEPHANIE JEAN NORDQUIST
DANIEL CHARLES SAVITT
DAMON M SUTTON
CYNTHIA GRACE WIDSTRAND
BRENT JAMES ZIEGLER

December 1999

RUSSELL WOOD DRIVER
DERRICK W. JUENGST
CHRISTINE EILEEN KUEHN
DAVIN A MEHRBANI
RHIANNON LYNN SILL
BRENTON DANIEL WALKER *(With Honors)*

1999 Donors to Department Funds

The Department relies on the generosity of our friends, alumni and faculty to provide the margin of excellence in our programs. There are general funds and funds for specific activities, scholarships, and so on. The first list acknowledges donors to all Departmental funds except the Building Fund in 1999, as recorded by the University of Wisconsin Foundation. We thank each of you for making the improvement of our program possible. In addition, because of the imminent occupation of the new building, this year we are acknowledging all donors since 1995 on the Foundation records for contributions to the Chemistry Building Fund.

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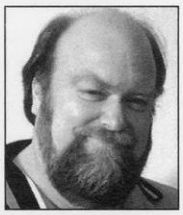
IN MEMORIAM
1999–2000

CHARLES F. BAILEY
(PhD '30) Died January 15, 1997. He was 91.

GARY BELD



Gary A. "Bear" Beld, Chemistry's longtime mailroom staff and stock clerk, died unexpectedly while at work on January 5, 2000. His constant good humor, optimistic outlook on life, and outstanding work ethic made him a pleasure to be with and to work with. Gary will be missed by all of us.

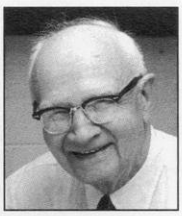
JOHN C. BURKHOLDER
(BS '37, MS '38) Died Jan 17, 1998, at 84. He was vice president and general manager of Ashland Chemical Company until his retirement in 1972.

KENNETH D. CARLSON
(BS '58, PhD '66, Goering) Died Nov. 17 1998. Dr. Carlson retired in 1997 from the National Center for Agricultural Utilization research, USDA, Peoria, IL, where he worked as a research chemist for 30 years.

RICHARD F. B. COX
(PhD '33) Died October 1997. He was 91.

CLAYTON M. HUGGETT
(BS '38) Died Sept 28, 1998. He was 81. Dr. Huggett received a PhD from Minnesota in 1947, and was a senior scientist in fire research at the National Bureau of Standards when he retired in 1985.

AARON IHDE



Emeritus Professor and long-time editor of the *Badger Chemist* Aaron Ihde died on February 23, 2000 in Florida, where he was living with his daughter. We will prepare a more extensive obituary for next year's *Badger Chemist*.

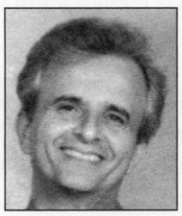
HAROLD G. JOHNSON
(PhD '41) Died January 22, 1999, at 84. Dr. Johnson was a professor *emeritus* at Northern Illinois University.

THOMAS R. KISSEL
(PhD '74, Blaedel) Died September 1999.

C. FREDERICK KOELSCH
(BS '28; Ph.D. '31, McElvain) Died Dec. 24, 1999, in Rochester, MN. He was 92. Dr. Koelsch published seven papers in organic chemistry during his graduate career here from 1928-1931. He was the 1934 Langmuir Award recipient in recognition of "the important research contributions made by him in the chemistry of condensed ring systems." He was professor of organic chemistry at the Univ. of Minnesota from 1932 until his retirement in 1973, after which he kept himself busy with hobbies of electronics, ham radio, computers, gardening, and his children and grandchildren. He published well over 100 papers and taught over 8000 students during his career at Minnesota. He was well respected, and his charm and modesty were often remarked by his colleagues and associates.

DONALD LEWIS
(BS '42, MS '47, PhD '48) Died June 17, 1997. He was 77. Dr Lewis was a staff research chemist at Shell until he retired in 1979, then lectured at the University of Texas–San Antonio.

PETE MANESIS



Peter Manesis, Art Director and Designer for the *Badger Chemist*, succumbed to brain cancer on June 22, 1999, at the age of 49. Pete received a BA from the University of Wisconsin-Madison in 1972, and spent his entire working career at the Instructional Media Development Center here on campus. He was a colleague and friend who worked with a novice editor to create a magazine we were both happy with and proud of. His constant good humor and encouragement helped me greatly when I was starting out. He will be missed.

LAVERNE G. MILUNOVICH
(BS '53) Died May 25, 1998.

CARL V. PIPER
(BS '30, MS '36) Died Jan 11, 1999, at 90. He loved his work and had a passion for chemistry. After retirement from the Institute of Paper Chemistry in 1973, he did consulting for Badger Labs. He enjoyed talking with fellow chemist Charles Scribner at the Heritage Retirement Home after Marian, his wife of 53 years, passed on, and he loved to play the piano for the residents on a daily basis. He

IN MEMORIAM

(. . . continued from page 27)

never expected to live for 89 years but at the end he still had his chemistry books and Bible near him for reference.

DONALD A. ROBINSON

(PhD '49, Adkins) Died Feb 7, 1999. Dr. Robinson worked at Mallinckrodt Chemical Co. until his retirement. He married Mary K. Wiegel in 1949 and had 6 children, all of whom were college graduates.

LLOYD R. SETTER

(BA '28) Died December 20, 1995. Dr. Setter received his PhD from Rutgers in 1932, and worked with Radiological Standards in the US Public Health Service, retiring in 1970.

MARTHA STAMPER

(PhD '52, Aycock) Died Feb 22, 1999. Dr. Stamper had worked at Eli Lilly.

ODELL A. "TALLY" TALIAFERRO

(BS '33) Died April 12, 1999, at 93. Tally was well known to Chemistry students because of his role in preparing lecture demonstrations from 1944 to 1974. He was also active in the NAACP, the mayor's Commission on Human Rights, and the Humane Society.

CHARLES J. TAPPERO

(PhD '41) Died November 1999, from cancer, at 81. He worked as a chemist for U. S. Rubber Co. and Kaiser Aluminum until his retirement in 1978.

EDGAR A. THRONSON

(BA '29) Died July 12, 1995. He was a chemical engineer with DuPont until his retirement in 1967.

JEAN WILLE

(MS '49) Died July 7, 1999. She was 73.

ERIC WILLIAM WOLLMAN

(BS '86) Died from cancer July 16, 1999, at 49. He received his Ph.D. in Inorganic Chemistry in 1993 from MIT, and had been employed as a research chemist at Eastman Kodak Co. in Rochester, NY since 1992.

OTHER NOTABLE NEWS

(. . . continued from page 6)

dear to the hearts of the organic faculty at Wisconsin, our former visitors, and our students. Those who spent the day at the scientific symposium experienced the fruits of this tradition, in the form of a diverse and exciting scientific program — both in the seminars and the poster session — and in the interactions with one another and with our students.

Wisconsin has had a long tradition of annually inviting young "threshhold of eminence" chemists to spend a semester in the Department as a Visiting Professor. These chemists were often from Europe. A special element of the visitor's program comes from the fact that, during the course of a semester, there is an opportunity to develop close personal, as well as scientific, relationships. It is both the personal and the scientific interactions that enrich us — individually and collectively. (For a history of the organic visiting professorship, see Hans Reich's website: *http://www.chem.wisc.edu/~reich/)*

This position has now been endowed by a generous gift from Margaret Goering, widow of *emeritus* faculty member Harlan Goering. Now, more than ever, the Department relies on private gifts to maintain our "margin of excellence". The Visiting Professorship is truly a crucial component of that "margin of excellence". This is the reason that Margaret's generous gift is so important to us.

The Department is grateful to many former visitors for making a special effort to travel long distances to attend this event.

Roger Alder	Bristol
Carsten Bolm	Aachen
Reinhard Bruckner	Freiburg
Reinhard Hoffmann	Marburg
Markus and Sylvia Kalesse	Hannover
Frank and Tönna Klaerner	Essen
Michael Reggelin	Mainz
Josh and Eva Schantl	Innsbruck
Dieter Schinzer	Magdeburg
Gary Wiseman	New Hampshire

"Once Upon A Christmas Cheery"

Bassam Shakhashiri's 30th annual Christmas presentation again played to packed houses at 3 shows over the weekend of Dec. 11-12, 1999. The 30th Anniversary occasion was marked by a Mayoral Proclamation from Madison **Mayor Susan Bauman**, extolling the contributions that Bassam, his guests and his helpers have made to science over the years. The 2000 show will be Dec. 2 and 3, 2000.

National Mole Day, 2000

National Mole Day, celebrated every Oct 23 from 6:02 AM to 6:02 PM, will have as its 2000 theme (what else?) "Celebrate the Molennium."

Mark Your Calendar!

Come Help Us Celebrate

DEDICATION OF THE NEW ADDITION TO THE CHEMISTRY BUILDING

Friday
September 15, 2000
3:00 PM

For Updates See the Chemistry Department Website

http://www.chem.wisc.edu

INSTRUCTIONAL MEDIA DEVELOPMENT CENTER
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