LOUIS A. CARPINO RECEIVES HIRSCHMANN AWARD IN PEPTIDE CHEMISTRY

Louis A. Carpino, Professor of Organic Chemistry, has been awarded the 1992 Ralph F. Hirschmann American Chemical Society Award in Peptide Chemistry, which is sponsored by Merck, Sharp & Dohme Research Laboratories. As one colleague quoted in Chemical and Engineering News of October 7, 1991, states, “It is difficult even to conceive of the idea that one chemist should have introduced so many of the intermediates that have made modern peptide synthesis possible and has now added another one. However, Louis Carpino has done it.”

Carpino has been on the faculty since 1954 and is currently being honored for two key discoveries in the development of protecting groups for peptide synthesis. Today the majority of chemists doing peptide synthesis use either the tert-butyloxycarbonyl (BOC) or 9-fluorenylmethoxycarbonyl (FMOC) group, both designed by Carpino, as alpha protectants for the assembly of peptides and small proteins.

The work which led to the Hirschmann Award is a good example of two consecutive serendipitous discoveries in the field of amino group protection. When Professor Carpino came to UMass in 1954, one of his research goals was to synthesize the first examples of a class of compounds, monosubstituted diimides (RN=NH), considered too unstable to be isolated under normal conditions. It was thought that it might be possible to generate a stable diimide salt, for example by treatment of known esters such as R-N=NCOOBn with HBr, a typical deprotecting agent for the carbobenzyloxy group (COOBn, CBZ). Professor Carpino had in mind doing IR studies, possibly at low temperatures, to verify the postulated intermediates. Indeed this project allowed the University via Research Corporation and NSF support to obtain its first IR spectrometer, the old Perkin-Elmer 21. NMR studies would have been equally useful, but at that time NMR was not even “just around the corner.” It was several years before the first commercial NMR spectrometer, the Varian A-60, like the PE-21 now only a museum piece, became available.

Unfortunately (or fortunately, in view of the eventual results), the azo linkage in R-N=NCOOBn acted to oxidize the deprotecting agent HBr, thus dashing hopes for removing the CBZ group and retaining the azo linkage. Professor Carpino therefore sought a protecting group which would be cleaved by a weaker acid which happened also to be non-reducing. The carbo-f-butoxy group (COOCMe₂, BOC) fit the bill in combination with trifluoroacetic acid (TFA). Following Carpino’s initial work continued on page 4
The Curriculum in Biological Chemistry Continues to Grow

Just like a healthy, young, living organism is wont to do, the Biological Curriculum in the Department of Chemistry is growing. With the addition of Lynmarie Thompson (see New Faculty section) the Biological Chemistry Faculty have grown in number to include, along with Professor Thompson, Professors John Brandts, Michael Maroney, Craig Martin, and Robert Weis. This group fills an important niche in the University community by teaching and researching the chemical basis of the exquisitely complex molecules and chemical reactions that are found throughout the biological world. These laboratories cross the traditional boundaries within chemistry to include tools and approaches of physical, inorganic, and organic chemistry. In addition, all of these professors are members of the Graduate Program in Molecular and Cellular Biology, providing opportunities for intellectual exchange between several Departments.

The Biological Chemistry Faculty has had an impact on a number of courses—they have introduced an emphasis on biological molecules into Elementary Physical Chemistry and Chemistry of Macromolecules, and have plans to introduce a biophysical section of Physical Chemistry Laboratory. A number of courses have been offered since the inception of the curriculum in 1989 that are available to advanced undergraduates and graduate students alike, including Biophysical Chemistry, Protein Structure, Nucleic Acid Chemistry, Biological Magnetic Resonance Spectroscopy, and Metal Ions in Biology.

These new directions in courses and research represent an important opportunity to train students for the growing fields of pharmaceutical and environmental chemistry, and biotechnology.

Correction

Kenneth Gonsalves, Frederick Hedberg, and Kenneth Wynne were incorrectly listed in the Summer, 1990 issue of the GOESSMANN GAZETTE as having received their Ph.D.s under the direction of Professor C. Peter Lilley. Professor Marvin Rausch was the director of Kenneth Gonsalves, Frederick Hedberg's director was the late Professor Robert Williams, and the research director of Kenneth Wynne was Professor John George.

Governor William Weld officiated at the groundbreaking ceremonies for the new Silvio O. Conte Polymer Research Center last summer (1991). This building will be directly north of the Graduate Research Center and will provide more than 100 laboratories, with research space for 20 faculty and 150 graduate students. The Center should be ready for occupancy by 1994.
FACULTY NEWS

Professor Ronald D. Archer has been the facilitator for the "New England Team" of ChemSource, an NSF sponsored program to provide detailed curricular materials (objectives, labs, history, humor, references, etc.) for beginning teachers. The New England Team has produced three of the thirty-five SourceBook modules: Halogens, Solutions, and Photochemistry—all of which will be available in hard copy, PC & Mac diskettes, and CD-ROM forms by the Summer of 1992.

Professor David Curran returned in September from a sabbatical leave which was spent partly in Amherst and partly at the Naval Research Laboratories in Washington, DC. The latter was particularly enjoyable since it provided a chance to do research in electrochemistry.

Professor Roberta O. Day was the recipient of the Connecticut Valley Section Award. She received a plaque and monetary award at the September 19, 1990 meeting held at Mount Holyoke College. Her award address was titled, "Looking at Molecules: Single Crystal X-ray Diffraction Analysis."

Professor Paul M. Lahti has been invited to speak at a special "Instrumentation Symposium on Molecular Based Magnetism" in Shuzenji, Japan, to be held in October, 1992. He was also invited to participate in a NATO Advanced Research workshop on Magnetic Materials in Lucca, Italy during the Fall of 1990 and to a NSF workshop on Reactive Intermediates at Santa Barbara, California, in the Spring of 1991.

Professor Robert W. Lenz, who is a Faculty Affiliate in the Chemistry Department, received the ACS Award in Polymer Chemistry, sponsored by the Mobil Chemical Company.

Professor C. Peter Lillya chaired the New England Regional ACS meeting at UMass in June, 1991. There were 430 attendees and 229 papers and posters.

NEW FACULTY

Dr. Lynmarie K. Thompson joined the Department in January, 1991, as an Assistant Professor. Her research interests are in the area of Biophysical Chemistry and focus specifically on understanding the mechanism of action of membrane proteins involved in signal transduction and bioenergetics. Currently her approach to studying these topics combines the techniques of magnetic resonance spectroscopy with biochemistry and genetic engineering. Professor Thompson received her undergraduate degree from the California Institute of Technology in 1983, her Ph.D. from Yale University in 1989, and was a postdoctoral fellow at Massachusetts Institute of Technology from 1989 to 1990.

FACULTY NEWS continued

Professor Lillya took a sabbatical leave in Spring, 1992 at the Organic Chemistry Institute, University of Mainz, Germany.

Professor Michael J. Maroney was a guest of the Hungarian National Academy of Science on a US-Hungarian exchange program for two weeks in September, 1991. He was based at the Biological Research Institute in Szeged and visited various institutions in Pecs and Budapest. In the Summer of 1992 he gave an invited lecture entitled, "Insights Regarding the Structure and Function of Ni Sites in Hydrogenase" at the Third International Conference on the Molecular Biology of Hydrogenase in Troia, Portugal. Professor Maroney, with Dr. Beatrice Botch as co-investigator, received a grant from the Camille and Henry Dreyfus Foundation which contributed to the acquisition of the CAChE Molecular Modeling System for the Chemistry Department Resource Center.

Professor Marvin Rausch was recently elected as Permanent International Secretary for the International Conferences on Organometallic Chemistry. The next conference is scheduled for August, 1992 and will be held in Warsaw, Poland.

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CARPINOS RECEIVES HIRSCHMANN AWARD IN PEPTIDE CHEMISTRY

continued from page 1

on the BOC system, the effort was joined by a number of University graduate students, among them Paul Terry, Chester Giza, Paul Crowley and Bob Murray. Subsequently independent work by investigators at two pharmaceutical companies was reported in the literature.

Although not foreseen at the time, TFA proved to be a judicious choice as deblocking reagent since it is a great solvent for peptides and proteins, being one of the best so-called “structure breakers,” thus facilitating penetration and high reactivity even in the case of long chain peptides. This is probably one of the main reasons why the BOC/TFA combination quickly gained a foothold in the field of peptide synthesis and has remained popular in spite of the many advantages of a second α- amino protactant, the 9-fluorenylmethoxy carbonyl group (Fmoc), also the result of an accidental discovery at the University. Grace Han, who obtained her Ph.D. degree under Professor William E. McEwen, joined Professor Carpinos group in the late sixties as a postdoctoral associate and carried out all the initial work on the Fmoc system. The decision to look at Fmoc chemistry was made while Professor Carpinos was on sabbatical leave in Europe and by chance occupied a bench just down the hall from a group of physical organic chemists who were working on the mechanism of base-catalysed elimination of HCN from thiocyanates (R.CHSCN). Reaction rates were much greater for 9-fluorenyle v. benzhydryl thiocyanates, and this suggested an examination of the long-known alcohol 9-fluorenylmethanol and its corresponding urethane derivatives (FMOC substrates). The need at that time for a mildly deblocked base-sensitive protecting group again bore no relationship to peptide chemistry. In this case the goal was a search for a rational method to generate another elusive hydronitrogen, azamine (H,N=N). Such a compound could not be expected to survive in the presence of the acidic reagents needed for BOC deblocking.

At the time the Fmoc group was developed, Dr. Han and Dr. Carpinos foresaw the future to some degree and made a few simple dipeptides using the methodology, and the peptide community was invited to try the new system. Few peptide practitioners took the suggestion, and it was many years before others saw the remarkable advantages of the Fmoc group. This led Professor Carpinos group to become more directly involved in the specific field of peptide synthesis.

Instrumental in introducing peptide chemistry to the group and exploiting the Fmoc function were postdoctorals Beri Cohen from the Weizmann Institute and the group of Mike Bienert and Mike Beyermann at the Institute of Drug Research in Berlin. Exciting new reagents for the coupling of Fmoc and other amino acids were developed by Dr. Cohen in association with undergraduate Kent Stephens, graduate students Dean Sadat-Aalaei and Hahn Guan Chao and our colleague from Alexandria University, Professor E.M. E. Mansour. Eventually many others adopted Fmoc protocols for chain assembly and it seems likely that this system, in view of its much milder nature, will gradually surpass BOC approaches in the future, especially in the case of automated solid phase syntheses. Indeed the best approach currently is to assemble the chain via Fmoc chemistry while protecting all side chains with BOC and other t-buty1-based protactants. These two functions are said to be orthogonal, i.e., removable in any order in the presence of the other, another reason for the increasing interest in both groups.

Major contributors to the University work in this field have been mentioned above. Professor Carpinos wishes to emphasize, however, that the work leading to the Hirschmann Award would not have been possible without the dedicated effort of many other graduate students, postdoctoral associates and not-to-be forgotten undergraduate students who have enrolled in Chem 380 (Introduction to Research) and summer research programs.

VISITING FACULTY

Dr. Naoki Yoshioka, from Waseda University in Tokyo, Japan, worked with Professor Paul M. Lahti during October and November, 1991. Dr. Yoshioka studied computational modeling of polymeric polyradicals in order to apply this technique to his own work on organic ferromagnets in Japan. Dr. Yoshioka was able to obtain a fellowship from the Japan Society for the Promotion of Science to return and continue to work in Professor Lahtis group for two years, from April 1992 to March 1994. Dr. Yoshioka will continue to work on the computational modeling and experimental synthesis and characterization of organic polymeric materials with potential ferromagnetic properties. He is an expert in this area, having synthesized the first conjugated organic polyradical polymer as part of his work in Japan. Dr. Yoshioka is the first Japan Society for Promotion of Science Fellow to come to our department to carry on research.
Over a three-day period in June (24-26 1991) at the University of Massachusetts Conference Center, nearly 430 scientists and students of chemistry participated in the twenty-first Northeast Regional Meeting of the American Chemical Society. The Connecticut Valley Section's sponsorship made it one of the few local sections in the region to sponsor this meeting twice. This was the first time the University of Massachusetts played the role of host. Professor C. Peter Lillya chaired the meeting.

Conferences participated in seven symposia and additional technical sessions in ten specialty areas. On Monday evening there were 31 poster presentations and a wine and cheese spread for the conference participants between 5 and 7:30 PM. Tuesday saw the award of the ACS Northeast Regional Award in High School Chemistry Teaching to Mary C. Christian of Exeter-West Greenwich Regional High School in West Greenwich, RI, and culminated in an evening open house of the UMass Chemistry Department featuring nearly twenty hands-on experiments in the Chemistry Resource Center. Here visitors could munch cookies while watching molecules rotate in three-dimensional many-colored splendor. On the last afternoon workshops on the use of CA ONLINE and Beilstein online were enjoyed by those hearty enough to stay after the last technical session had finished and the exhibitors had departed.

The Weather Committee did an outstanding job at this meeting to the point that James Russell Lowell could not have imagined rarer days.

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**Faculty Service in the American Chemical Society**

University of Massachusetts faculty are frequently called upon for service to the American Chemical Society, and contribute importantly to the visibility of the Department in doing so. During academic year 1990-1991, several were active in ACS matters. Professor Ronald Archer, as a result of having chaired the Society Committee on Education for three years, chairs the advisory committee for the American Chemical Society's "Chemistry in Context" project, which hopes to improve the quality of chemistry for non-scientists' textbooks. He also serves on the ACS Nominations and Elections Committee, chairs two subcommittees of "N&E", and serves on two committees of the Division of Chemical Education. Professor David Curran was active on the Society Committee on Meetings and Expositions, and with the Analytical Chemistry Division as Treasurer and on its Committee on Professional Status. Emeritus Professor William E. McEwen was a candidate for the high position of Director of Region I of the American Chemical Society. Professor Louis D. Quin completed ten years of service with the Society Committee on Publications, and also served on the Publishing Board of Chemical and Engineering News. Professor Robert Rowell is an Associate Editor of Langmuir, and is Co-Chair of a standing symposium on colloid particles. Finally, Professor Peter Uden is Chairman-Elect of the Sub-Division of Chromatography and Separations Chemistry of the Analytical Division of the American Chemical Society. His term as Chairman will begin in January, 1993. He also acts as Program Coordinator for the Sub-Division and is very interested to have input as to possible activities including topics for future symposia at ACS National meetings.

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**IN MEMORIAM**

Ernest Nuttleman died in December, 1991. Ernie was with the Department for ten years before he retired. He was a member of the Machine Shop Staff.
ALUMNI NEWS

After two years at UMass as a postdoctoral research assistant with Professor Tyson, Dr. Stephen Bysouth is now negotiating with several possible employers. During the year Stephen Offley, a graduate student from the University of Technology, Loughborough in the UK, spent three months in the CELAR (Controlled Environment Laboratory for Analytical Research) working on aspects of hydride generation flow injection atomic absorption spectrometry, and Oswald Platteau from the Intepep Corporation, Caracas, Venezuela spent time learning about flow injection atomic spectrometry.

Doug Brown (M.S. with Professor Lillya, 1978) is Ciba-Geigy's Business Director for the Advanced Composites Group.

Chyong-Hwa Chang (Ph.D. with Professor Rowell, 1987) has recently been hired by the DuPont Company. She has been on a training program in the United States that will take her to a DuPont plant in Mississippi in January, 1992.

David Collard (Ph.D. with Professor Lillya, 1989), after a postdoctoral with Marye Anne Fox at University of Texas, has joined the faculty of Georgia Tech. He was awarded a Camille and Henry Dreyfus Faculty Fellowship.

Mark Davis (Ph.D. with Professor Uden, 1991) is with the Union Carbide Corporation, Bound Brook, NJ.

Zhiwei Deng (Ph.D. with Professor Curran, 1991) has returned to China to take up a post-doctoral position at Xiamen University.

Frank "Rusty" Denton (Ph.D. with Professor Lahti, 1991) is at Bellcore Research Labs in Red Bank, NJ.

Thomas Dowling (Ph.D. with Professor Uden, 1991) is with Merck, Sharp and Dohme Research Laboratories, Rahway, NJ.

Kimberley Forbes (Ph.D. with Professors Uden and Barnes, 1989) is with Rhone Poulenc Rorer Pharmaceutical Co., at Fort Washington, PA.

Walter Gavlick (Ph.D. with Professor Uden, 1988) is with the Calgon Corporation, St. Louis, MO.

Andrew Ichimura (Ph.D. with Professor Lahti, 1992) has obtained a JSPS postdoctoral fellowship to work for Professor Hiizu Iwamura, Head of the Chemistry Department at University of Tokyo in Japan. This very prestigious award will allow Andrew to work with one of the best-known physical organic chemists in Japan, and an internationally-recognized leader in the area of molecular-based ferromagnetism.

Abbas Kamalizad (Ph.D. with Professor Uden, 1974) is Laboratory Director for Applied Analytical Industries, Inc., in Wilmington, NC.

Christopher Karpenko (M.S. with Professor Curran, 1991) is at Boehringer Ingelheim Pharmaceuticals, Inc., in Ridgefield, CT.

Mark Kearley (Ph.D. with Professor Lahti, 1991) took a postdoctoral position with Professor Ned Porter of Duke University.

David Mazzo (Ph.D. with Professor Uden, 1984) will be Director of Analytical and Physical Chemistry with Rhone Poulenc Company, in Paris, France, from January, 1992.

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GIFTS AND FELLOWSHIPS

Francene Smith Burnett (B.S., 1936, deceased 1990) provided a legacy to the Department which will be made available to the Graduate Recruiting and Awards Committee to be used for Summer Research Fellowships.

Dr. Edward P. Marram (B.S., 1959 in Chemistry; M.S., 1961 in Physics), President of GEO-CENTERS, Inc., Newton Centre, Massachusetts, was again responsible for arranging a $10,000 service free fellowship for an entering graduate student. This is the fourth year that Ed has gained this major award for us. Susan M. Bird was awarded the GEO-CENTERS Graduate Fellowship for 1991-92.

The Francine Shoenfeld Award Fund, created by Pat Marsh (B.S., 1978) and his wife, Vickie, has again provided a $10,000 fellowship for a graduate student working under the direction of Professor Marvin Rausch.

The following three Summer Fellowships, made possible by the generosity of alumni, were awarded for the Summer of 1991:

Leonie Bailey, the Slowinski Summer Fellowship (Dr. Emil Slowinski, B.S., 1946).
Thomas Ready, the Klemann Summer Fellowship (Dr. Larry Klemann, Ph.D., 1969).
Stacey Bailey, the Kuhn Summer Fellowship (Donald and Phyllis Kuhn).

Sonia Pawlak and Ebenezer Debrah were each awarded a corporate scholarship from Perkin-Elmer for the 1991-1992 academic year.

Laura Martinez was awarded the Procter and Gamble Summer Fellowship for 1991.

UNDERGRADUATE NEWS

Amy McKay ('91) was awarded a Pfizer Summer Fellowship. This enabled Amy to remain on campus during the Summer of 1991 to start her senior research, a study of 6-azido-2-chloroadenosine, a photo-labile derivative of adenosine. Amy works with Professor Stephen Hixson. On October 11, Amy and twenty other students from a number of New England colleges and universities participated in a poster session at Pfizer Central Research in Groton, Connecticut.

Julie Lehrman ('91), Angelika Schowlow ('92), Jonathan Wilker ('91), and Jean Young ('91) presented papers on their undergraduate research projects at the annual Connecticut Valley Section of ACS Undergraduate Research Symposium. The 1991 symposium was held on April 6 at Saint Joseph's College, West Hartford, Connecticut.

Jonathan Wilker ('91) was one of six students selected nationally to present papers on their undergraduate research at the annual Waldo Semon Chemistry Symposium on April 8, 1991. This symposium is held at Kent State University, Kent, Ohio, its sponsor.

Six senior awards were presented to the class of 1991. The winners were Charles Fancher, Daniel Hebner, Hideko Imazumi, Julie Lehrman, Jonathan Wilker, and Jean Young. Jean is now employed by Pfizer Central Research; the remaining five award winners elected to attend graduate school.

Robert DeSelms ('91) was cited in Chemical and Engineering News, December 24, 1990, for undergraduate research in the synthesis of amino acid fluorides done under the direction of Professor Louis A. Carpino.

UMass Faculty Participate in Symposium Held in Honor of Ernest Eliel

In October, 1991, an international symposium entitled, “Recent Aspects of Stereochemistry and Conformational Analysis” was held in Mexico City to honor Professor Ernest Eliel, University of North Carolina and current President of the American Chemical Society, on his seventieth birthday. The UMass Chemistry Department was also honored in the event by having Emeritus Professor William McEwen and Professor Louis Quin as two of the twenty-two invited speakers on the program. Their interest in the stereochemistry of organophosphorus compounds is shared by Professor Eliel.
FACULTY NEWS continued

Professor George R. Richason received the honorary degree of Doctor of Science from the University of Massachusetts at the May 26, 1991 Commencement in Amherst.

Professor Marion B. Rhodes chaired a session on the Fundamentals of Polyurethanes Chemistry at the Polyurethanes World Congress held in Nice, France, September 23-September 26, 1991. Professor Rhodes was instrumental in the Olympus Corporation providing some excellent equipment on loan for her course in Chemical Microscopy.

Professor Robert L. Rowell has been invited by the Science University of Tokyo Foundation to visit and lecture at the University during the period May 10-May 30, 1992. At the Science University of Tokyo he will lecture on the characterization of colloid particles in the Department of Applied Chemistry. Following that visit he will also spend approximately a week at Kyoto University where he will lecture in the Department of Polymer Chemistry.

Professor Richard S. Stein officially retired August 31, 1991. However, he will continue with the Department having accepted a five-year, 39% post-retirement appointment. He will continue with some teaching and an active research program. He was inducted into the National Academy of Engineering and the American Academy of Arts and Sciences in October following his induction last year into the National Academy of Sciences. Professor Stein has been appointed as Chairman of a Committee of the National Research Council to carry out a year-long study on “Polymer Science and Engineering: The Shifting Research Frontier.” He has also been appointed to the Solid State Sciences Committee of the National Research Council. He spent the period of January–April, 1992 at the University of Akron as the Harold A. Morton Distinguished Visiting Professor.

Professor Julian Tyson held a short course entitled, “Flow Injection Atomic Spectrometry” during the Summer, with the aid of a number of outside speakers including Professor Jarda Ruzicka of the University of Washington, Seattle. Professor Ramon Barnes hosted a follow-up to the previous Summer’s short course on “Practical Methods of Digestion for Trace Analysis.” These courses are likely to be repeated in the Summer of 1992. The dates for the Flow Injection Atomic Spectrometry course are May 28-29, 1992. Professor Tyson had a busy year traveling around the world telling the analytical chemistry community of the results of recent research in the UMass Controlled Environment Laboratory for Analytical Research. He presented invited lectures at conferences in Canada, Germany, and Japan as well as at several meetings in the U.S. including Eastern Analytical Symposium, Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Meeting, The Winter Conference on Flow Injection Analysis and The Gordon Research Conference on Analytical Chemistry. He continues to represent the interests of the Royal Society of Chemistry (Analytical Division) on the FACSS Governing Board and has been appointed the Program Chair for the 1993 meeting in Detroit (October 17-October 22, 1993). Look for a substantial involvement by UMass analytical faculty.

Professor Peter C. Uden spent four weeks in the People’s Republic of China in May and June, 1991, as a member of the World Bank Commission reviewing progress made in Chinese Provincial Universities over the past five years through World Bank loan assistance for instrumentation, buildings and personnel development. His specific area of review was in chemistry department programs and in analytical instrumentation centers. Professor Uden continues as Chair of the IUPAC (International Union of Pure and Applied Chemistry) Commission on Chromatography and other Analytical separations. In 1991, his commission met in Hamburg, Germany, during the IUPAC General Assembly.

Professor Alfred M. Wynne is spending a sabbatical at the University of Loughborough, England during the Spring semester, 1992.

Drs. Michael J. Maroney, Paul M. Lahti, and Bret E. Jackson were promoted to Associate Professor.

Professor William McEwen retired effective August 31, 1990. He is still actively involved in research and publications activities.

To honor Professor Richard S. Stein for his 40 years of distinguished service to the University, Vice Chancellor for Research Samuel F. Conti, Dean Frederick W. Byron (Natural Sciences and Mathematics), the Department of Chemistry and the Polymer Science and Engineering Department hosted a reception on the occasion of his retirement. The event was open to all members of the University community and was held on December 17, 1991 in Memorial Hall. Professor Stein’s retirement was effective August 31, 1991.

STAFF

Michael Conboy, a member of the Chemistry Department Electronics Shop, served in the Gulf War from December 1990 to July 1991 as Master Sergeant. He was stationed at the Westover Air Force Base in Chicopee, Massachusetts, as a Shop Foreman for 439th Field Maintenance Squadron in the Electro/Environmental Shop. Mike received the Air Force Commendation Medal and the Senior NCO Award. We all greatly appreciate his efforts and are pleased to have him back as a member of the department.
ALUMNI NEWS continued

Robert McKeen (Ph.D. with Professor Curran, 1990) is with Rhone Poulenc Rorer Pharmaceutical Co., at King of Prussia, PA.

Edward Miller (Ph.D. with Professor Lillya, 1969) who is a senior scientist at Texaco in Beacon, NY, and Ron Sahatjian (Ph.D. with Professor Lillya, 1969), Vice President for Technology at Boston Scientific, both attended the Departmental Research Symposium and Posterfest in October, 1991.

David Modarelli (Ph.D. with Professor Lahti, 1991) went on to a postdoctoral position with Professor Matthew Platz of Ohio State, an authority in the area of carbene chemistry. Dave already has a JACS communication published from his work with Professor Platz.

Professor John Olver, formerly a member of this Department, was elected to the U.S. House of Representatives in Fall, 1991.

Thomas Sassi (Ph.D. with Professor Lillya, 1989), after a postdoctoral position at Research Triangle Institute, has joined American Cyanamid in Stamford, CT.

Shaw-Ji Shiau (Ph.D. with Professor Rowell, 1989) has recently become Assistant Manager of Regional TiO2 Technical Service Chemicals for Du Pont Taiwan Ltd. He is in charge of a technical service lab near Taipei that provides technical service to the coatings and plastics laboratories. In his job he travels to Hong Kong, PRC and inside Taiwan for product promotion and trouble shooting.

Kevin Slatkavitz (Ph.D. with Professor Uden, 1984) is with Parke-Davis, Warner Lambert Co. in Morris Plains, NJ.

Edward Szczesny (M.S. with Professor Curran) is an analytical chemist at the Tippecanoe Laboratories of Eli Lilly & Co., West Lafayette, IN.

Val Tramontano (Ph.D. with Professor Archer, 1989) has changed his employment to be with King Industries in Connecticut near where he grew up. He married in 1991 and he and Christine live at 309A Pine Creek Ave., Fairfield, CT 06430.

Dwight Tshudy (Ph.D. with Professor Uden, 1990) is with the Xerox Corporation, Rochester, NY.

Tao Wang (Ph.D. with Professor Uden, 1990) is with Merck, Sharp and Dohme Research Laboratories, Rahway, NJ.

Paul West (B.S., 1989) is currently working for the U.S. Army Corps of Engineers Environmental Laboratory in Hubbardston, MA. His address is: 272 Pearl Street, Apt. 5, Gardner, MA 01440.

Marie Wojtas (M.S. with Professor Uden, 1986) is with Arthur D. Little, Inc., Cambridge, MA.

Caobin Zhu (Ph.D. with Professor Curran, 1991) works for an environmental firm, Ceamic Corporation, in Narragansett, Rhode Island. ☞
The Chemistry Annual Fund

For the past few years, we have used the GOESSMANN GAZETTE as a means of communicating to our alumni the fact that we need their help in continuing to carry on some of the new activities in the Department that add to the quality of its programs. Never before has the need for external help been as critical as it is at present. Alumni know from various University publications and pleas that there have been serious reductions in operating funds, and our Department has of course shared in these reductions. The Annual Fund is now the sole source of support for our Seminar Program, including the Distinguished Lecturer Series started in 1986. Alumni should be proud of this program, which is of major importance to the intellectual life of the Department. Just as important is the use of the Fund for graduate student support, and here especially our need is growing as the University reduces its commitment to us. We therefore ask our Alumni to make a special effort this year to contribute to the Annual Fund and keep our student-oriented activities going strong. Your help will definitely make a difference to us in these difficult times, and will keep us on the way to excellence that we embarked on a few years ago.

Please use the form below to make your contribution for 1992. Remember that if you are employed in the chemical industry, your employer may have a program for matching, or even tripling, the amount you give. If you have never checked on this possibility, now is the time!

On behalf of our faculty and students, I send sincere thanks to all who have supported us in the past, and we look forward to continued support in a time of need.

Louis D. Quin
Head

The Chemistry Annual Fund
University of Massachusetts at Amherst, Department of Chemistry

The Annual Fund is to be used for the support of the Department Seminar Program and for graduate fellowships.

Enclosed is my check for $_______ made payable to the University of Massachusetts to be credited to the Department of Chemistry Annual Fund

or

I wish to pledge $_______ to the Chemistry Annual Fund, and will make payments in _______ months or as follows:

__________________________________________

Home Address: ☐ Correct ☐ Change to: Business Address:
(if correct please affix label here)

Title:
Company:
Address:

Phone: __________________________ Phone: __________________________

☐ My employer (or spouse's) matches employee gifts. A copy of their form is enclosed.