the Test Tube

Newsletter 1990 (#11)

THE DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

Texas Tech University Lubbock, Texas

Editor: Henry J. Shine Editorial Assistant: Jane Bradley

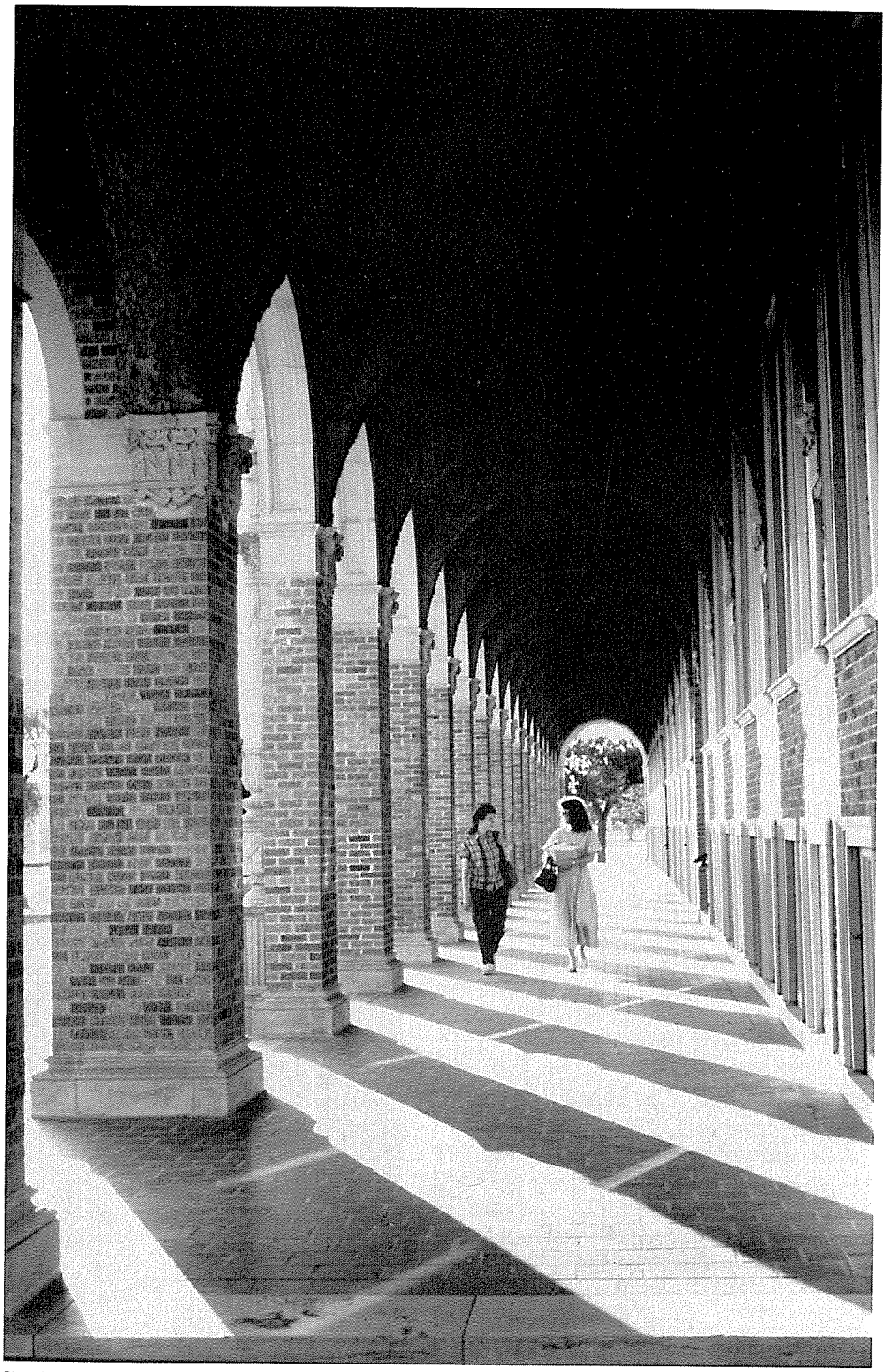


Photo by Artie Limmer

To Our Readers:

My first column as chairman comes at a sad time for all of us in the Department. Dr. Kasem Nithipatikom, who joined our Analytical Chemistry Division faculty just one year ago has resigned for reasons of poor health. He will be missed as one who had already established himself as a sympathetic teacher and as a promising researcher. Shortly thereafter, we learned of the death of Dr. Walter Chesnavich, Associate Professor in our Physical Chemistry Division. Walt's death, at the height of his power as a scientist, is a severe blow to our Department, and also deprives us of a good friend.

There is, fortunately, also much cause for celebration of past achievements and anticipation of a bright future. The Department has been fortunate to welcome to our faculty three extremely able new assistant professors: Dr. David Birney, Dr. Dominick Casadonte, Jr. and Dr. Allan Headley.

This has been an extremely successful year for our Department's research program. One of the year's highlights came with the announcement that five of our faculty received Texas Advanced Technology or Advanced Research Program grants. The fact that we were able to secure so many of these highly competitive grants, designed by the State of Texas to encourage "cutting-edge" technology development is a source of considerable pride, particularly since the reviewing panels consisted of nationally-known experts in their various fields. We also reached a record level of graduate students studying in the Department.

Yet, much remains to be done. The Department sorely needs to modernize its instructional and research instrumentation. We must also attract talented undergraduates to our chemistry and biochemistry degree plans. We hope that those of you who have profited from our programs in the past will support our plans for growth in the future with your advice, enthusiasm and, hopefully, also with your financial support for our scholarship programs and other needs.

Sincerely,

David B. Knaff

David B. Knaff, Chairman

An Eleven-Year Decade

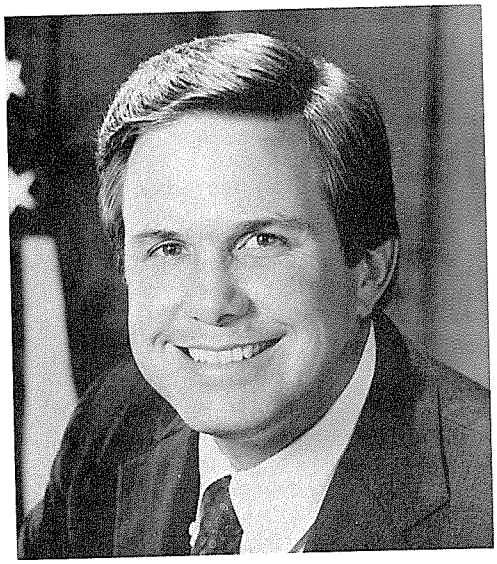
That's the next thing to a baker's dozen, and is what your erstwhile Editor is serving. Valiant Dick Bartsch, trying to survive decompression and re-entry into the easier world of faculty membership after 8.5 years as Chairman, postponed by one year his taking on the Editorship. Chairman Knaff, who on Development Leave developed a fine degree of arm twisting, called in yours truly from his figurative coupon-clipping dotage, to gather up the news again. Now, there's no such thing as a twelve-year decade, so this is the very last. Actually, it's a pleasure to get Jane Bradley and Misselaineous to do all the work, again.

Former Department Chairman Dr. Richard A. Bartsch (L) and successor Dr. David B. Knaff.

Bartsch Out-Knaff In. Not-So-Musical Chairs.

Our picture shows Dr. Richard Bartsch handing over the reins, as it were, to Dr. David Knaff. In fact, Dick is telling David: "Good luck, old chap, you'll need it." Dick Bartsch was our chairman for eight and a half years. He served in the last semester (fall, 1989), as a matter of fact, so that David Knaff could take the Development Leave that Tech had awarded him earlier. There is no question in any of our minds that Dick set a rare standard of hard work and accomplishment. His work week in our building was a six-day, 60-hour one. We should preserve the notice he would leave each Saturday on the copying machine: "please leave on until 5 pm, Dr. Bartsch". Our yearly newsletters record in part Dick Bartsch's successes in research and the training of so many research students and postdocs, as well as the major changes that took place while he was Chairman, among them being the renovation of the old building and the creation of our biochemistry major. The chairmanship of a department, like so many administrative posts, is, as David will no doubt discover, mostly a thankless job. So, we belatedly say thanks to Dick Bartsch for the 8.5 years of his life and thanks to Nadine Bartsch for her support for Dick and our Department. Relax, Dick, and enjoy. As for David, thanks, too, for taking on a job that you may no doubt discover is mostly a thankless one.

Congressman Larry Combest Visits Chem 1306



U. S. Congressman Larry Combest, 19th District of Texas.

Students in Bob Holwerda's "Chemistry and Society" class (Chem 1306) got a surprise visit from our 19th- District-of-Texas Congressman in the Spring '89 semester. Here's the story. Bob Holwerda's class was studying environmental chemistry, including the acid rain problem. As a bonus, Bob asked his students to read about President Bush's meeting with Canadian Prime Minister Brian Mulroney in which an acid rain agreement was discussed. Interest was then expressed in a letter-writing campaign to Congressman Combest and other elected officials (Phil Gramm and President Bush, mainly) urging prompt passage of a U.S.-Canadian environmental agreement. Over 100 students participated.

As a result, Congressman Combest's office called to ask whether he could respond in class personally to these letters. Bob kept the visit a surprise until the moment of Congressman Combest's arrival, but asked the class frequently whether they thought he would respond to their letters. Most were sceptical.

To his credit, Larry Combest used his time (about 40 minutes) to address the specific questions raised by students in their letters and in person. The class responded quite favorably. A set of 1976 13¢ chemistry commemorative stamps was presented to Mr. Combest as a token of appreciation.

Judy Leuty Receives Outstanding Achievement Award

On August 24 Vice President Donald R. Haragan presented our Administrative Assistant, Judy Leuty, with a plaque and certificate acknowledging dedication to her work at Texas Tech. The Award was made in the University Center's Courtyard. The work of Judy and her colleagues has been described as the glue that holds the Department together. Be that as it may, Judy's award signifies her loyalty and hard work for the Department and the University.

Ms. Judy Leuty, cutting her Outstanding Achievement Award-celebration cake, August 24, 1989.

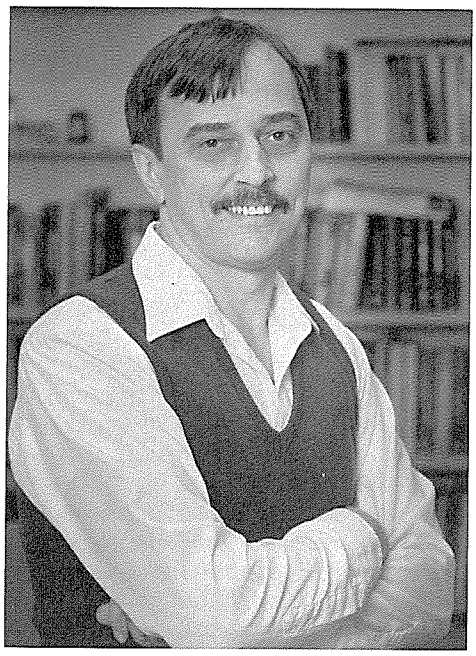
Death of Dr. Walter Jon Chesnavich

The Department was deeply saddened to learn of the death during the Christmas holidays of one of our faculty, Dr. Walter J. Chesnavich. Walt died at his home in Lubbock on December 25th. He was 43 years old.

Walt was born in Waterbury, Connecticut. He was graduated from Northeastern University with a B.A. in Chemistry in 1968. He received the M.S. degree from the University of California, Los Angeles in 1970, followed by his Ph.D. in 1976 from the same institution. He did postdoctoral work at both UCLA and UC Santa Barbara. He joined the faculty at Texas Tech University in 1980 as an Assistant Professor, and was promoted to Associate Professor with tenure in 1986. Walt's research interests were in molecular collision theory, statistical treatment of chemical kinetics, and interstellar chemistry.

Walt's contributions to the Department, in addition to his research, were numerous. He was a first-rate and concerned teacher who received excellent student evaluations in courses ranging from the freshman to the graduate level. He was the resident Departmental expert on microcomputers, and recently had designed and implemented our Macintosh computer network. He also chaired the committee that designed the Department's extremely attractive brochures.

A memorial gathering was held in the Department on January 9, 1990



Dr. Walter Jon Chesnavich, 1946-1989.

and was attended by some 150 people, including faculty, current and former students of Walt's, staff, and University administrators, as well as his mother, sister, and nephew. At that time the formation of a permanent scholarship fund in Walt's memory was announced. Anyone who would like to make a donation to the scholarship fund should make the check payable to: Dr. Walter J. Chesnavich Scholarship Fund. The check should be mailed directly to the Department. Walt will be greatly missed by all in the Department.

1989 Robert A Welch Foundation Lecture

Professor Ei-ishi Negishi

The Welch Foundation not only supports research and graduate studies by grants for faculty, and by the Welch Chair in Chemistry, but also each year sponsors a distinguished visiting lecturer. This year the visitor was Professor Ei-ishi Negishi, a native of Japan, but now Professor at Purdue University since 1979. Negishi spent September 18 in the Department and spoke about his research in "Transition Metal-Catalyzed or Promoted Selective Carbon-Carbon Bond Formation".

News of Our Scholarship Funds

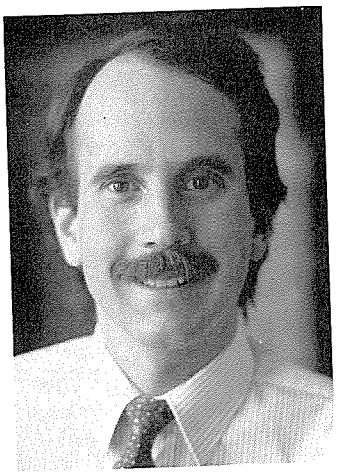
We are happy to report a nice increase in contributions to the Alumni Scholarship Fund that was first announced in the 1987 Newsletter. The fund now stands at $4,229, getting closer to the $5,000 minimum required by TTU in order for its income to be usable for scholarships. We look forward to reaching that goal and beyond with the help of your continued response. We are happy to list 1989's donors with our sincere thanks. Doubly pleasing to all of us are the matching donations from Shell Oil Company Foundation, for J. B. Ashton, and Phillips Petroleum Foundation, for Joe P. Young.

Our first Pennzoil Products Co. scholarships were awarded this year, and we are pleased to say that they will be continued with another gift from Pennzoil. From Pennzoil, Dow Chemical U.S.A., Hoechst Celanese, and Jeanette and Joe Dennis we have a nucleus of scholarships helping to sustain academically worthy students in our scientific discipline. Added to these scholarships this year, too, was the Raymond Smola-Vista Chemical Scholarship, created by a $500 gift from Raymond Smola (B.S. '88) to be matched by Vista Chemical for whom Ray works in Austin.

Donors to the Alumni Scholarship Fund

Dr. Joseph B. Ashton (BS 1952, PhD 1959)
Dr. and Mrs. Richard A. Bartsch (faculty)
Mrs. Lucinda Schlobohm Becker (BS 1979)
Dr. Gordon Bellah, Jr. (BA 1974)
Dr. and Mrs. Bong Rae Cho (PhD 1980)
Dr. and Mrs. Robin Cooper (BS 1983)
Dr. Purnendu K. Dasgupta (faculty)
Mr. Tzu-Li (Frank) Ju (MS 1979)
Mr. Donnell O. Love (staff)
Dr. Ching-Nan Ou (PhD 1977)
Dr. Warner Peticolas (BSChE 1950)
Phillips Petroleum Foundation (matching gift for Joe P. Young)
Dr. and Mrs. Jae-Seong Rhee (PhDs 1986)
Mr. Matthew T. Ryan (BS 1984)
Dr. Hemanta K. Sarkar (PhD 1983)
Shell Oil Company Foundation (matching gift for J. B. Ashton)
Dr. and Mrs. Henry J. Shine (faculty)
Dr. Hideharu Shintani (postdoc 1985-86)
Welch Professor Emeritus Charles W. Shoppee
Mr. David Siller (MS 1979)
Dr. Michael R. Smith (BA 1980)
Dr. Byungki Son (PhD 1984)
Dr. David W. Wright (BA 1986)
Mr. Joe P. Young (BS 1986, MS 1989)

Meet Our New Faculty



Dr. David M. Birney.

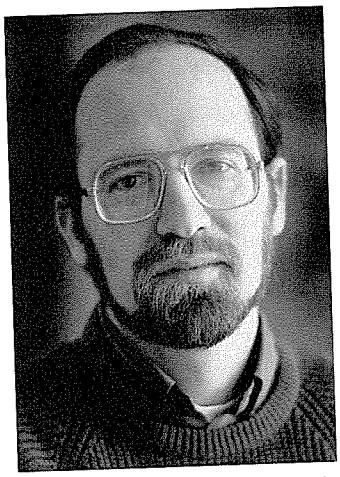
Dr. David M. Birney, assistant professor, was born in Washington, DC. He received a BA with high honors from Swarthmore College (1978). After three years at Sadtler Research Laboratories he entered Yale University, and later received his Ph.D. (1987) in Organic Chemistry. He was a postdoctoral fellow at the University of California, Los Angeles until joining Texas Tech.

Dr. Birney is interested in reaction mechanisms and transition states of organic reactions. His research is focused in three main areas: (1) design of chiral catalysts for the Diels-Alder reaction, (2) multiphoton infrared photochemistry, and (3) *ab initio* calculations.

The great utility of the Diels-Alder reaction would be even more enhanced if a chiral Lewis-acid catalyst were available. Dr. Birney has designed a series of catalysts derived from bile acids which promise to be both general and highly selective catalysts.

Multiphoton infrared photochemistry is identical to thermal chemistry observed in unimolecular reactions, but the products are formed in a cold environment. This dramatic difference is being exploited in studies of intermediates in unimolecular reactions and as a tool for initiating bimolecular reactions.

Ab initio calculations have provided the framework for the design of the chiral catalyst. They have an important role in the design and interpretation of the multiphoton infrared photochemistry, and are being used to study the details of photochemical reactions.



Dr. Dominick J. Casadonte, Jr.

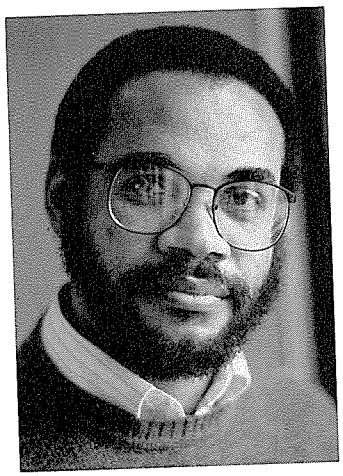
Dr. Dominick J. Casadonte, Jr., assistant professor, hails from Cleveland, OH. He received the B.S. degree (1977) in Chemistry from Case Western Reserve University, an M.S. degree (1980) in Physical Chemistry from Purdue University, and the Ph.D. degree (1985) in Inorganic Chemistry, also from Purdue. Dr. Casadonte was a postdoctoral fellow at the University of Illinois from 1985 to 1988. He was one of the first ten recipients of a new Dreyfus Foundation Postdoctoral Teaching / Research Fellowship during the 1988-89 academic year. Administered at ten different liberal arts colleges with particularly strong Chemistry programs, the fellowships were designed to stimulate teaching and research among undergraduate students. His Dreyfus fellowship year was spent at Furman University in Greenville, SC.

Dr. Casadonte's interests focus upon an examination of unusual excited state processes in inorganic complexes. There are three areas of active research in his lab designed to help understand the chemistry and physics of these high-energy events.

The first involves an investigation of the photochemistry and photophysics of supramolecular complexes. Supramolecules may be considered to be "molecules of molecules", in that the molecules are formed not by the combination of individual atoms, but rather by the catenation of molecular subunits, each with their own unique photophysical properties. He is currently investigating supramolecular metalloceramics and metallogels formed by the sol-gel process using photoactive Ru(II) complexes as building blocks. Such materials may have utility for their non-linear optical properties. He is also interested in using luminescence as a tool for probing the fractual dimensionality (that is, fractional dimensions lower than three) of these complexes. The results of his studies will have potential utility in the rational design of molecule-size electronic devices.

A second aspect of Dr. Casadonte's research includes the formation and characterization of transition metal complexes which display multistate luminescence, i.e., simultaneous emission from two distinct excited states in a molecule. He is also busy exploring the mechanism whereby communication between excited states occurs.

A third area of active interest involves studies of the chemical effects of high-intensity ultrasound. Acoustic cavitation induced by the sound field produces temperatures of ~5000 K (the temperature at the surface of the sun!) and 500 atm during the adiabatic collapse of gas vacuoles in solution. These physical extrema lead to the production of high-energy species not available to the molecule by analogous thermal and photochemical routes. Dr. Casadonte is currently exploring sonochemical processes in heterogeneous media as a means of producing active catalytic systems.



Dr. Allan D. Headley

Dr. Alan D. Headley, assistant professor, was born and received h

primary and secondary education in Jamaica. He graduated from Columbia Union College, Maryland, in 1976 with a Bachelor of Arts degree in Chemistry. In 1978 he started his graduate studies at Howard University and was awarded the Ph.D. degree in Chemistry in 1982. Immediately upon completion of his doctorate, he started postdoctoral research with Professor Robert W. Taft at the University of California-Irvine. He then returned to Jamaica as a Lecturer in the University of the West Indies. While there, he received an award for Outstanding Achievement. Dr. Headley was a Visiting Professor at the University of California-Irvine for the spring quarter of 1987, and joined that faculty as a Lecturer in the fall of 1987 where he remained for two years before accepting a position at Texas Tech.

Dr. Headley's research activities involve studies of substituent and solvent effects and their applications and quantitative structure-activity relationships. These effects form a fundamental aspect of both organic and biological chemistry. Drug transport and reactivity in a biological system are strongly dictated by medium effects. Quantitative assessment of substituent and medium effects on the behavior of molecules, especially those of biological importance are analyzed. Another aspect of this research involves seeking an understanding of the factors affecting the solubility of various classes of compounds-both organic and inorganic. The solubilities of compounds are measured in a variety of solvents and correlated with solvatochromic parameters to establish the requirements for solubility. The development of solute solvatochromic parameters for amino acids and other important biological molecules is one important objective. In a biological environment, due to its complex composition, medium effects require a more elaborate analysis. Partition coefficients, which have been successfully used to correlate the potencies of a variety of drugs, are determined for various compounds in a wide range of solvent systems with differing properties. These values are used in conjunction with solvent and substituent parameters to study the biological environmental effects on the reactivity of these molecules. Such information adds significantly to the understanding of the solubility and reactivity of molecules in various media.

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We are happy to welcome to our community also, Mrs. David (Nadine) Birney, Mrs. Dominick (Mary Katherine) Casadonte and Mrs. Allan (Faye) Headley.

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Changes, Changes, Changes.

Elsewhere in this Newsletter you will read Jerry Mills' tribute to colleague Walt Chesnavich, whose 10-year bond with us has been broken by death. In his words of farewell at Walt's memorial service, Dick Bartsch told us that Walt will be forever in our midst and minds with the Local Area Network, the LAN, that he fathered and brought to fruition. And, so he will be. We look back on 10 years of being together, wonder where on earth those years could have gone, and say, with heartfelt sadness, goodbye to our young and brilliant friend.

We say farewell to two other colleagues. Dr. Kasem Nithipatikom has had to leave the Department because of the severity of allergies to our climate. Dr. Russ Larsen will be leaving to enter a new way of life in epidemiology at the University of Pittsburgh. We bid them adieu, with reflections that each takes away with him part of our life, and leaves with us the richness of part of his. So it is, and so it will be.

Among the changes are the arrivals of three new faculty members, who are welcomed individually in this Newsletter: David Birney, Dominick Casadonte and Allan Headley. Former friend and colleague Roy Mitchell will be back in the Spring semester, 1990, to help us cope with the loss of Walt Chesnavich and Kasem Nithipatikom. Roy, now winemaster at Teysha Winery, has consented to pitch in, in our present difficulties, for which we all tip our hats and tell him thanks.

News of Faculty

Dr. John Anderson attended the meeting of the American Society for Biochemistry and Molecular Biology, San Francisco, CA, January 1989 and presented a paper on "Versicolorin A. Hemiacetal and Aflatoxin G_{2a} Reductase in *Aspergillus parasiticus*."

Dr. Richard Bartsch was invited to speak on "New Chelating Agents for Metal Ions: Synthesis and Applications" by the Central Research Laboratories, Hoechst Aktiengesellschaft, Frankfurt, Germany. He was also an invited speaker in the Symposium on Recent Initiatives in the Synthesis of Organic Extractants, at the ACS meeting in Dallas in April. Dr. Bartsch's lecture was on "Effects of Structural Variation within Proton-Ionizable Crown Ethers upon the Selectivity and Efficiency of Solvent Extraction of Alkali Metals and Alkaline Earth Cations." Dr. Bartsch gave lectures and seminars on his research at numerous other places, including the University of North Texas, Denton (February), Dow Chemical USA, Freeport, TX and the University of Houston (March), Baylor University, Waco, TX and Stephen F. Austin University, Nacogdoches, TX (April), Battelle Pacific Northwest Laboratories, Richland, WA (June), Technicon Instruments Corp., Tarrytown, NY (September), and Southwestern Oklahoma State University, Weatherford, OK (November). In November, too, he was co-organizer of a one-day symposium on "Increasing the Rate and Capacity of Separations," at the national meeting of the American Institute of Chemical Engineers, in San Francisco.

Dr. David Birney attended the Gordon Research Conference on Physical Organic Chemistry, Plymouth, NH in June.

Dr. Dominick Casadonte spoke at the 41st Southeast Regional ACS Meeting on "Photostudies of Low-Valent Metal Isonitrile Complexes" and on "Photophysical Behavior of $Cu(dmp)(PPh_3)_2^+$ in CH_2Cl_2."

Dr. Sandy Dasgupta traveled far and wide, speaking about his research at Texas Tech. He spoke on "Membranes in Analytical Chemistry: A Personal Tour" at Shell Development Co., Houston (March),the Inhalation Toxicology Research Institute, Albuquerque, NM (May),the University of Twente, the Netherlands Energy Research Foundation, and the Technical University, Copenhagen (August), and New Mexico State University, Las Cruces (November). The subject of his lectures at Michigan State University, Lansing (June), the Royal Institute of Technology, Stockholm (September) and the

ACS Southwestern Regional Meeting, Baton Rouge (December) was "Automated Analysis: Continuous or Discontinuous Flow." He gave the keynote lecture at the Ohio Valley Chromatography Symposium, Hueston Woods, OH, in June on "Ion Chromatography: Is Electric Eclectic?" At the University of Bern, Switzerland, the Technical University, Vienna, Austria (August) and the University of Stockholm, Sweden (September) he spoke on "Diffusion Based Sampling and Analysis in Atmospheric Measurements." While in Sweden in September he spoke also at the University of Umeå on "Ion Chromatography: How Far with Membranes", and gave a plenary lecture at the 12th Nordic Atomic Spectroscopy and Trace Elements Conference, in Stenungsund, on "Trace Metal Determination by Chromatography." Be it noted that while all this was underway, Sandy Dasgupta was also Chairman of our Graduate Student Admissions Committee, thereby responsible for correspondence with, and ultimate selection of, the new graduate students in our Department.

Dr. Robert Holwerda was awarded a Development Leave by Texas Tech in the Fall, 1989, during which he was a Visiting Research Associate at the California Institute of Technology. There, as a guest of Prof. Fred Anson, he carried out cathodic electrochemical studies of chromium and palladium complexes at the suspended mercury drop electrode. While on leave Dr. Holwerda also wrote a 681-question, interactive Macintosh computer tutorial for our first semester general chemistry course, Chem 1307. In this tutorial, students are presented with a comprehensive series of multiple choice questions. Wrong answers bring up help screens customized to the type of mistake made. The program is currently being tested in the Department's MacLab and will be distributed in final form for the 1990-91 year.

Dr. Holwerda presented two papers at the Dallas National ACS Meeting in April on "Transformation of Chromium(III) Diols with Aromatic Amine Ligands to Linear, μOxo Chromium(III) Dimers" and "Linkage Isomerism in Chloranilato Paladium(II) Complexes."

Dr. David Knaff, newly baptized as Chairman by the fire of faculty meetings, was on Development Leave for the last six months of 1989. David spent his time in Zürich doing research in protein modification at the Institute of Biochemistry, and molecular biology, in the Institute of Plant Biology, on a bacterial gene that codes for the enzyme involved in the first step of CO_2 assimilation. At the same time, David taught a course in bacterial genetics. Before going to Switzerland, he gave a plenary lecture in June at the University of California, Berkeley, Summer Photosynthesis Conference, Sonoma, CA, on "Ferredoxin-Dependent Chloroplast Enzymes." Leaves abroad invariably call for lectures at conferences and universities, and Dr. Knaff's leave was no exception to this call. On the way to and while in Switzerland he gave seminars on "The Role of Cytochrome C_2 in Cyclic Electron Flow" at the Universities of Pennsylvania (Department of Biochemistry), Bologna, Italy (Botanical Institute), and Freiburg, Germany (Department of Microbiology). He spoke on this topic also at the meeting on Membrane Biochemistry in Photosynthetic Bacteria in Freiburg, and at the French Atomic Energy Research Laboratory, Saclay (Department of Biophysics), and the Max Planck Institute for Biochemistry, Martinsried, Germany. Further seminars on "Ferredoxin-Dependent Chloroplast Enzymes" were given at the Universities of Milan, Italy (Department of Biochemistry), Zürich (Biochemical Institute), Neuchâtel, Switzerland (Department of Plant Biochemistry) and last, at the Technical University, Wroclaw, Poland, with which we have had a decade-long exchange of researchers.

David's Development Leave gave him, of course, the calm reflective perspective to take on the Chairmanship of the Department on his return to the hub of the South Plains. He says it has not prepared him for another new and longer-lasting role in life—that of grandfather. We record here for David that Gweneth Jean Rose Knaff was weighed in at 7.5 lbs at 4:11 p.m. on December 30, 1989, in Riverside, CA. That, by the way, was 3.4 Kg and 1:11 a.m. December 31, Zürich time.

Last in Dr. Knaff's news of accomplishments is another aborning, the appearance of the textbook, coauthored with William Cramer of Purdue University, titled "Energy Transduction in Biological Membranes" and published by Springer Verlag.

Dr. John Marx has developed a computer program for library use nationally, that captures data from the On-Line-College-Library-Cataloging System (OCLC), formats it, and prints call numbers for spine labels on library books. The inspiration for devising the program was John's wife, Patricia, who is Head of the Materials Processing Department in Tech's Library. We record here, too, that John is the Department's computer consultant who frequently rescues our chestnuts from computer fires, especially this Editor's, and that Pat is one of the fountains of library wisdom to whom we turn for help, always unstintingly given.

Dr. Jerry Mills was an invited feature speaker on "Microscale Laboratory in High School General Chemistry" at the Annual Meeting of High School Chemistry Teachers, University of Colorado, Boulder, CO in October. While at the University, Dr. Mills spoke in the Department of Chemistry on "Some Chemistry of Elemental Phosphorus and Its Tetrahedral Derivatives." Dr. Mills was an invited symposium speaker at the National ACS Meeting in Dallas in April, on the topic "Safety of Microscale General Chemistry Experiments." Dr. Mills continues to be active in local and national ACS activities. He is the Councilor for the South Plains ACS Section and a member of the Local Section Activities Committee of the National ACS. As our representative, Dr. Mills made a successful bid for holding the 1992 Southwest Regional ACS Meeting in Lubbock, to be held during October 21-23. We look back on the highly successful 1984 meeting in Lubbock and send out the signal for girding-the-loins in preparation for a repeat in 1992.

Dr. Richard A. Nakashima spoke in February, 1989, on "Hexokinase-Binding Properties of the Outer Membrane VDAC Protein" and "DCCD-Binding Sites on the Mitochondrial VDAC Protein" at the Joint National Meeting of the American Society for Biochemistry and Molecular Biology and the American Society for Cell Biology, in San Francisco. In July, 1989, he spoke on "Mechanisms of Regulation of Glucose Catabolism in Cancer Cells" at the Harrington Cancer Center, Amarillo.

Dr. Edward Quitevis has been appointed Adjunct Assistant Professor of Physics, Texas Tech. During May, 1989, Dr. Quitevis was a Visiting Scientist at Exxon Research and Engineering, Annandale, NJ. He spoke at the 197th National ACS Meeting in Dallas in April on "Picosecond Diffuse Reflectance Spectroscopy of Electron Transfer at Semiconductor Surfaces" and "Picosecond Polarized Spectroscopy of Molecular Aggregates." In November, Dr. Quitevis gave a seminar on his research at Rice University.

Dr. Wilse Robinson was a visiting research fellow in the University of Melbourne, Australia during January and February, 1989. Seminars and lectures presented by Dr. Robinson included "Wet Chemistry at the Molecular Frontiers of Time and Space", Harvard-MIT (March), "Would the Real Theory of Condensed Phase Chemical Reactions Please Stand Up?" at Colorado State University (September), Princeton University (September) and Ohio State University (November), "If Maxwell had his Way" at the Joint Meeting of Texas Sections of AAPT, APS and SPS (October), and "Strange Happenings in Ultrafast Processes in the Condensed Phase" at the NIH (December). In March, Wilse gave invited talks at the Meeting of the American Physical Society, in St. Louis, on "Fast Kinetic Processes in Mesoscopic Water" and "Time Resolved Fluorescence Spectroscopy of Lipid/Water System with Different Packing Geometry," while in September he spoke to the Exxon Research and Engineering Co., Annandale, NJ on "Chemically Stiff Water: Ions, Surfaces, Pores, Bubbles and Biology."

Dr. Henry Shine spent the summer, 1989, in England, writing about chemistry and re-learning how to speak the Queen's English. While there Dr. Shine spoke about his research on cation radicals at University College and Queen Mary College of the University of London, at the University of Bristol, University College of North Wales in Bangor, and at the Universities of York and Durham.

Dr. Robert Walkup was promoted to Associate Professor and was granted tenure effective in the fall semester, 1989. Dr. Walkup gave seminars on his research at Colorado State University (January), University of Colorado and the University of Denver (February), Caltech (March) and New Mexico State University (November). In March he spoke at the Eighth Biennial Marvel Symposium, Tucson AZ, on "Reductive α-Alkylations of Ketones via Free-Radical Cyclizations of (2-Chloro-1-ethyl)silyl Enol Ethers." At the National ACS Meeting in Dallas in April he spoke on "Syntheses of Tetrahydrofuranyl Moieties of Pamamycin-607 via Intramolecular Oxymercurations of γ-Silyloxyallenes." On June 18, 1989, Bob and Debbie Walkup became happy parents of their fifth child, Jeth Groves Vanderwilt Walkup.

Dr. Bruce R. Whittlesey presented seminars in February, 1989, on "The Synthesis of Mixed-Metal Complexes Containing Transition Metals and Group 13 Elements" at New Mexico Institute of Mining and Technology, New Mexico Highlands University, and Northern Arizona University. Astute readers and students of yesteryear will note the Group 13. There are 18 of them now. Bruce will fill you in on the identity of 13. Send SAE, of course. Bruce has been elected to the position of Chairman-Elect of the South Plains Regional ACS Section, in which body he served earlier as Secretary.

Dr. Richard Wilde attended the Interdisciplinary Laser Science Conference at Stanford University (August) and the Chemical Congress of Pacific Basin Societies, Honolulu (December).

Faculty Awards, Honors and Appointments

Dr. Purnendu (Sandy) Dasgupta

P. A. Taylor Creativity Award, Dow Chemical Co., Analytical Sciences, Midland, MI, for the exposition of a new concept of continuous-process titration, wherein titer value is translated into frequency.

Outstanding Achievement Award, 2nd International Ion Chromatography Forum, Boston, MA, for unspecified contributions to the field.

College of Arts and Sciences, Texas Tech University, Faculty Research Award (Sciences).

Dr. David Knaff Appointed to the Editorial Advisory Board of *Experientia.*

Dr. Richard Bartsch, appointed to the Editorial Advisory Board of the *Journal of Inclusion Phenomena and Molecular Recognition in Chemistry.*

Postdocs and Research Associates

Prof. Moon Hwan Cho is on leave from Kangweon National University, Korea, as a postdoctoral fellow with Dr. Bartsch.

Dr. Takashi Hayashita, Kanagawa University, Japan, has joined Dr. Bartsch as postdoctoral research associate.

Prof. Hwang Huh, has completed his postdoctoral research with Dr. Bartsch and has returned to his faculty position at the University of Ulsan, Korea.

Drs. Ping Liu and Wei Lei, have left Dr. Dasgupta's group to work for the EPA, Tallahassee, FL.

Dr. Hideharu Shintani (postdoc 1985-86) is with the National Institute of Hygienic Sciences, Department of Medical Devices, Tokyo, Japan.

Dr. Wladyslaw Walkowiak (postdoc 1984-85) has returned to his faculty position at the Technical University, Wroclaw, Poland after a second period of postdoctoral research with Dr. Bartsch.

Dr. Da-Chuan Zhao (postdoc 1989-90) with Dr. Shine has accepted a postdoctoral position with Prof. E. von Doering, Harvard University.

Dr. Sheng-Bai Zhu (University of California, San Diego) has joined Dr. Robinson's group.

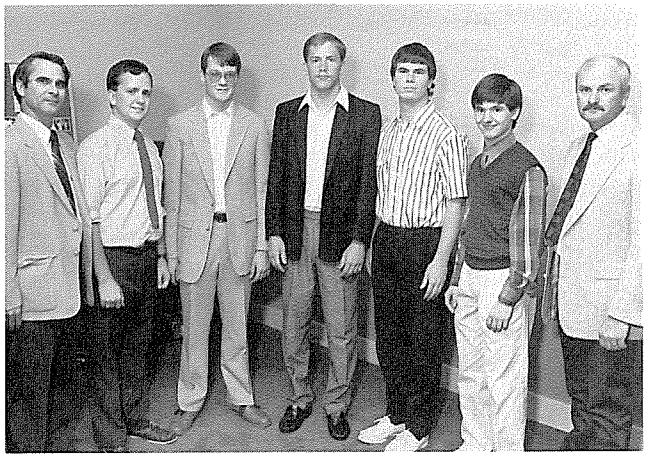
New research personnel joining Dr. Dasgupta's group are: Mr. **Kim Sonne** (Technical University, Denmark), Dr. **Huang Huiliang** (University of Göteborg, Sweden), Dr. **Chang-Ung Joung** (Choongnam National University, Korea), Dr. **Ozamu Nara** (Tohoku College of Pharmacy, Japan), **Dr. Zbynek Vecera** (Czechoslovak Academy of Sciences), Dr. **Tao Wang** (University of Massachusetts). Returning for a second stay is Assoc. Prof. **Shen Dong** from the Shanghai Medical University.

Awards Banquet for the South Plains Section of the American Chemical Society and Affiliated Departments

The banquet was held at the 50-Yard Line Restaurant on April 20, 1989. Joining the South Plains Section were the Departments of Chemistry and Biochemistry of Texas Tech, Eastern New Mexico, Wayland Baptist, and Lubbock Christian Universities and South Plains College. Departing from the past practices, the banquet speaker Prof. G. A. Crosby of Washington State University gave the banquet address earlier in the day at Texas Tech, titled *Light as a Research Tool*. This arrangement allowed not only for Prof. Crosby to relax and enjoy the banquet, but for more time to be available for the lengthening activities and awards. Awards were presented to students from South Plains College, Eastern New Mexico University, and Texas Tech, the last group being listed in our usual way in this Newsletter. Awards were made also to the region's Outstanding High School Teachers in 1989.

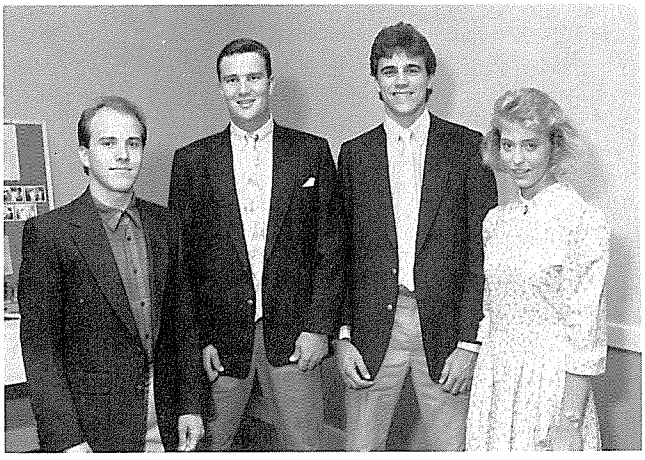
Awards Banquet. Susan Coombes, American Institute of Chemists and Merck Index Awardee.

Awards Banquet. 1989 South Plains Chemical Research Symposium Awardees Joe McDonough, Rajalakshmi Krishnan, Paula Blue and Robert Kane (L to R) with Dr. Robert Walkup.

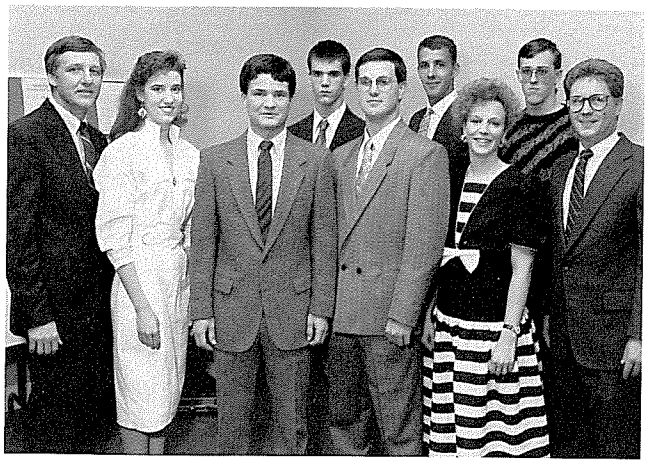


Awards Banquet. South Plains Section Finalists for the International Chemistry Olympiad and teachers (L to R) Mr. Royace Aiken, Robert Hogan, Aaron Clements, Chad Guetersloh, Brian Livengood, Jay Moore and Mr. Macky McWhirter.

Awards Banquet. Dr. Richard Bartsch and Outstanding Teaching Assistant Awardees Steve Wagy (L) and Scott Latimer.



Awards Banquet. Jeanette and Joe Dennis Scholarship Awardees Joseph Mogan, Brian Simmons, Wayne Fleitman and Karen Rogers.



Awards Banquet. Representatives from Hoechst Celanese with Hoechst Celanese Scholarship Awardees. L to R Ade Becker (H.C.) Stacy Clinton, Clinton Murray, Dustin McMinn, Bradley Bentley, Peter Brown, Denise Phillips (H.C.) Andres Simmons and Jay Trammel (H.C.).

Awards Banquet. Alumnus and Dow representative Dr. David Babb (L) with Dow Chemical USA Scholarship Awardees Charles Britton, Robert Livengood, Michele Williams, Joe Martin and Sean Kennedy.

South Plains Chemical Research Symposium Awards

For outstanding presentation: **Joe A. McDonough** (Texas Tech), graduate. For excellent presentation: **Robert R. Kane** and **Rajalakshmi Krishnan** (Texas Tech), graduate; **Paula Blue** (ENMU) and **Rogelio Martinez** (Texas Tech), undergraduate.

International Chemistry Olympiad, South Plains Section Finalists

Aaron Clements, Robert Hogan and **Jay Moore** (Lubbock High School, Mr. Royace Aikin, teacher and coach); **Chad Guetersloh** and **Brian Livengood** (Plains High School, Mr. Macky McWhirter, teacher and coach).

High School Teacher Awards by the American Chemical Society, South Plains Section.

Outstanding High School Teacher: **Mr. Roy Johnson**, Spur H.S.
Special Service Award for the Teaching of Chemistry: **Mr. Paul Walden**, Dimmitt H.S.

Teaching Assistant Awards to Graduate Students

Texas Tech University Outstanding Graduate Student Teacher Award: **Scott Latimer** (Holley, NY).

Department of Chemistry and Biochemistry Award for Superior Performance as a Teaching Assistant: **Stephen Wagy** (Lubbock, TX).

Scholarships and Awards to Undergraduate Students, 1989

The Samuel Hunt Lee Memorial Award (to an outstanding freshman chemistry major) **Ms. Pei-Pei Tang** (People's Republic of China).

The CRC Press, Inc., 42nd Annual Freshman Chemistry Achievement Award (to an outstanding student in freshman chemistry), **Darrell Taylor** (Ropesville, TX).

The Texas Institute of the American Institute of Chemists, Student Award (for outstanding accomplishment in a baccalaureate program in chemistry or chemical engineering, and potential as a professional chemist), **Ms. Susan Coombes** (Lubbock, TX).

The Merck Index Award (for outstanding achievement by a graduating senior), **Ms. Susan Coombes**.

Dow Chemical U.S.A. Scholarships for academic achievement (as a sophomore biochemistry major) **David Blann** (Lubbock, TX), **Joe Martin** (Lubbock, TX) and **Ms. Michele Williams** (Howe, TX); (as a sophomore chemistry major) **Sean Kennedy** (Snyder, TX) and **David Touchstone** (Lubbock, TX); (as a junior chemistry major) **Robert Livengood** (Plains, TX).

Hoechst Celanese Scholarships for academic achievement (as a freshman biochemistry major) **Bradley Bentley** (Amarillo, TX), **Dustin McMinn** (San Antonio, TX), **Clinton Murray** (Lubbock, TX), **Andrew Simmons** (El Paso, TX); (as a freshman chemistry major) **Peter Brown** (Normal, IL) and **Ms. Stacy Clinton** (Lubbock, TX).

Pennzoil Scholarships for academic achievement (as a freshman chemistry major) **Ms. Pei-Pei Tang** (PRC); (as a sophomore biochemistry major) **Bryan Kemper** (Midland, TX).

Phillips Petroleum Scholarships for academic achievement (as a freshman biochemistry major) **Huy Quang Pham** (Port Arthur, TX); (as a freshman chemistry major) **David Richard** (Odessa, TX).

Jeanette and Joe Dennis Scholarships for academic achievement (as a junior biochemistry major) **Ms. Karen Rogers** (Lubbock, TX); (as a junior chemistry major) **Wayne Fleitman** (Lindsey, TX) and **Brian Simmons** (Lubbock, TX); (as a senior biochemistry major) **Joseph Mogan** (Lubbock, TX).

Raymond Smola-Vista Chemical Scholarship for academic achievement (as a freshman chemistry major) **Robert Hogan** (Lubbock, TX).

Graduate Degrees, 1989

Larry D. Bratton (M.S., Dr. Bartsch), "Synthesis of Macrocyclic Multidentate Compounds."

Chang Ho Chung (Ph.D., Dr. Anderson), "Conversions of Versiconal Acetate and Hemiacetals in Cell-free Extracts from *Aspergillus paraciticus*."

Mary Ettel (Ph.D., Dr. Mills) "Studies of Trialkylphosphine-Carbon Disulfide Adducts and Chalconide Phosphorus Cages."

Boyd G. Gafford (Ph.D., Dr. Holwerda) "The Chemistry of Oxo- and Hydroxo-Bridged Chromium(III) Dimers with Aromatic Amine Ligands."

Young-Ae Kim (Ph.D., Dr. Knaff), "Active Transport of Amino Acids in Photosynthetic Bacteria."

Bor-Kang Lin (Ph.D., Dr. Anderson), "Studies on the Mechanism of Conversion of Emodin to Chrysophanol Catalyzed by Partially Purified Emodin Deoxygenase from *Pyrenochaeta terrestris*."

Nihal U. Obeysekere (Ph.D., Dr. Walkup), "Some Studies of Syntheses and Reactions of Silicon-Functionalized Silyl Enol Ethers."

Stephen D. Wagy (M.S., Dr. Walkup) "Syntheses and Resolution of Nonactate Analogues."

Shan Shue Wang (Ph.D., Dr. Anderson) "Characterization and Regulatory Study of Emodin Deoxygenase in Crude Extracts and Partially Purified Enzyme."

Biochem Undergraduate Receives Prestigious Goldwater Scholarship

Biochemistry senior Charles H. Britton, III, of Lubbock was named the recipient of a national Barry M. Goldwater Scholarship for the 1989-1990 school year. These scholarships carry a grant of up to $7000 for school-related expenses. Two recipients, who must be majoring in math or science, are chosen from each state. As part of his application, Britton submitted a research proposal concerning the use of enzymes to diagnose liver and heart damage.

Undergraduate Degrees, 1989

Sharyl Renee Brasher (B.A., Chemistry)
Matthew Todd Brittain (B.S., Biochemistry)
Margaret Rebecca Brown (B.A., Chemistry)
Teresa Ann Castelbury (B.S., Biochemistry)
Mark Thomas Corwin (B.S., Chemistry)
James Bailey Doyle (B.S., Biochemistry)
Guillermo Martin Fuentes (B.S., Biochemistry)
David Earl Harwell (B.S., Chemistry)
Charles Leroy Hendrix (B.S., Biochemistry)
Camille Jean Anderson Hester (B.S., Biochemistry)
Mark Bradley Kovich (B.S., Chemistry)
Susan Coombes Krassnig (B.S., Biochemistry, Summa Cum Laude)
Preeti Naranji Patel (B.A., Biochemistry, Cum Laude)
Douglas Dean Saul (B.S., Chemistry)
Rodney Dean Schulter (B.S., Chemistry)
Marvin Monroe White (B.S., Biochemistry)

Chem Majors Accepted for Medical/Dental School, 1989

The names of these students and their destinations were submitted by the Preprofessional Health Careers Committee: Chairman Jerry Mills and Counselor Bobbie Knight. Our thanks to the PHCC and best wishes to the students named.

Margaret R. Brown, UT-Houston
Bradley R. Pender, UT-Galveston
Warren R. Snyder, UT-Houston
James W. Winde, Texas Tech

Former Prof. Joe A. Adamcik Scores in Law

Dr. Joe Adamcik, who retired from our Department in 1988 to enter Texas Tech University's School of Law, was honored with two AMJUR (American Jurisprudence Association) Awards in the Fall semester, 1989. The awards were made for Dr. Adamcik's being the top student in two sections, Criminal Procedure and Administrative Law.

New Research Grants

Dr. John A. Anderson

"Enzymes in Mycotoxin Biosynthesis." Robert A. Welch Foundation, June, 1989-May, 1992. $75,000.

Dr. Richard Bartsch

"Metal Ion Complexing Agents." Serpentix, August, 1989-July, 1990. $25,000.

"Crown Ethers for Determination of Metal Ions." Technicon Instruments Corp., October, 1989-September, 1990. $63,000.

"Synthetic Hosts for Non-Covalent Recognition of Cationic and Molecular Guests." Robert A. Welch Foundation, June, 1989-May, 1992. $75,000.

"Synthetic Polymeric Ionomer Membranes." State of Texas Advanced Technology Program, January 1990-December, 1991. $135,000.

Dow Chemical Co., matching grant, $35,000.

Dr. Sandy Dasgupta

"Electrodialytic Eluent Generator." Dionex Corp. April, 1989-March, 1990. $28,200.

"Measurement of Ozone Residuals in Water." American Water Works Association Research Foundation. September, 1989-August, 1991. $60,000.

"Continuous Flow Analysis. Unrestricted Grant." Shell Development Company. April, 1989-June, 1990. $30,000.

"Measuring Water. Unrestricted Grant." Dow Chemical Co. January- December, 1989. $10,000.

"Measuring Total Phosphorous and Total Nitrogen with an Automated Micro Batch Analyzer." Dow Chemical Co. July, 1989-June, 1990. $36,037.

"Measurement of Ammonia and Sulfur Emissions in Texas. A Mobile Atmospheric Research Laboratory." Texas Advanced Research Program. January, 1990-December, 1991. $164,000.

"Novel Approaches to Ionic Chromatography, Phase III." U.S. Department of Energy. January, 1990-December, 1992. $244,000.

Dr. James Harman
"Site-Directed Mutagenesis of the CRP cAMP Binding Pocket." Texas Advanced Research Program. January, 1990-December, 1991. $109,892.

Dr. David Knaff
"United States-Switzerland Collaborative Research Program of the National Science Foundation, Travel Grant." $3,000.

Dr. Richard Nakashima
"Analysis of Tumor and Normal Tissues by Restriction Fragment Length Polymorphism." Texas Advanced Research Program. January, 1990-December, 1991. $164,000.
"Cancer Research Fund." Private Donors. January, 1989-December, 1990. $2,650.

Dr. Edward L. Quitevis
"Photodynamics of Merocyanine 540 in Model Biomembranes." National Institutes of Health, Academic Research Enhancement Award. April, 1989-March, 1992. $102,313.

Dr. Wilse Robinson
"Interfacial Water-Surfaces, Pores, Bubbles and Biology." Texas Advanced Research Program. January, 1990-December, 1991. $150,000.

Dr. Henry Shine
"Pericyclic Transition Structures." National Science Foundation, February 1990-January, 1993. $270,000.

Dr. Bruce Whittlesey
"One-, Two-, and Three-Dimensional Mixed-Metal Clusters." Robert A. Welch Foundation. June, 1989-May, 1992. $75,000.

Dr. Richard E. Wilde
"Molecular Relaxation in Liquid Crystals." Robert A. Welch Foundation. June, 1989-May, 1992. $75,000.

News of Alums

Joseph H. Allen (B.S. '49) has written from Irving, TX.

Thomas E. Anderson (B.S., '65) has been employed for the last five years as Central Region Sales Manager, Chemical Division, Georgia-Pacific Corp., Houston, TX.

Kelia Allen Ballou (B.S. '72) visited the Department in February 1989. Sorry I missed out on seeing you, Kelia.

Mrs. Lucinda Schlobohm Becker (B.S., '79) is now living in Tonka Bay, MN.

Dr. G. Gordon Bellah (B.A. '74) has written to us from Houston, TX.

Larry D. Bratton (M.S., '89) accepted a position in the Organic Product Research Division of Dow Chemical U.S.A., Freeport, TX.

Dr. Bong Rae Cho (Ph.D., '80) has completed a two-year appointment as Visiting Assistant Professor at Texas Tech and has returned to his faculty position at Korea University, Korea.

Dr. Robin L. Cooper (B.S. '83), Ph.D. TTUHSC '88, has taken a position in the Department of Pharmacology, University of Basel, Switzerland.

Dr. Alan P. Croft (Ph.D., '83) is working in the Organic Process Research Laboratory, Dow Chemical U.S.A., Freeport, TX.

Dr. Michael W. Davidson (B.S. '81, Ph.D. '86) who is Assistant Professor of Chemistry, Tennessee Tech University, received an MBA degree from Tennessee Tech in 1989 and will move into a position in industry.

Dr. Mary Ettel (Ph.D., '89) is currently combining a Visiting Assistant Professorship and postdoctoral research with Provost Karen Morse at Utah State University.

Dr. Dixie Ward Frederiksen (B.S. '63) is in Nashville, TN.

Dr. Boyd G. Gafford (Ph.D., '89) is currently a senior programmer with Westport Research, Kansas City, MO.

Dr. Gayle Glenn (B.A. '82) is now in Duncanville, TX.

Dr. Gary O. Gray (Ph.D. '84) has taken a new position in the Department of Chemistry and Physics, Southwest Baptist University, Bolivar, MO.

Dr. Kevin Gray (Ph.D., '88) has been awarded a second European Molecular Biology Organization (EMBO) postdoctoral fellowship to continue his research at the Max Planck Institute for Biochemistry, Martinsried, Germany.

Dr. Rickey L. Gross, M.D. (B.S. '77) has relocated his practice in internal medicine in Lubbock.

Dr. Tae-Ryong Hahn (Ph.D. '83) and **Dr. Young-Sook Hahn** (Ph.D. '84) were both promoted to Associate Professors in the Spring 1989 in the Departments of Genetics (Tae-Ryong) and Chemistry (Young-Sook), Kyung Hee University, Suwon, Korea. Tae-Ryong joined the Department after postdoctoral work at Yale University and has since then served as acting chairman.

Dr. Gwi Suk Heo (Ph.D., '83) works for the Korea Standards Research Institute, Daejon, Korea.

Dr. Paul G. Hipes (B.S. '81), Ph.D. Caltech, 1988, is now in Pasadena, CA.

Tzu-Li (Frank) Ju (M.S. '79) has written to us from Arlington, VA.

Dr. Pedro (Tino) N. Juri (Ph.D., '79) has been promoted by Squibb Worldwide Technical Operations, New Brunswick, NJ, to Director, Worldwide Bulk Pharmaceuticals QC Operations.

Dr.Sang-Ihn Kang (Ph.D., '83) has a position with the Squibb Institute for Medical Research, Princeton, NJ.

Hossein Karimi (B.A. '53, M.S. '62) visited the Department in November 1989 to renew old (and they are old) acquaintances. Hossein is Deputy Chief, Americas Division, Directorate of International Programs, Department of the Air Force, Washington, D.C.

Dr. Young-Ae Kim (Ph.D., '89) is a postdoctoral fellow in the Department of Biochemistry, Southwestern Medical Center, Dallas.

Dr. Weldon G. Kolb (B.A. '37), M.D., University of Texas Medical School, 1941, is living in La Marque, TX.

Dr. William Kurtin (B.A. '65, Ph.D., '69), Professor of Chemistry, Trinity University, San Antonio, has been given a Fulbright Award for study abroad.

Dr. Donald J. Kyle (Ph.D., '86) visited the Department, and presented a seminar on his work at Nova Chemical on computer-aided design of drug syntheses.

Dr. Jong Gun Lee (Ph.D., '78) is on six-month leave from Pusan National University, Korea, to visit Texas Tech with support from UNESCO.

R. Neil Lewis (B.S. Ch.E. '58, M.S. Ch.E. '60) has sent us a note from Murrysville, PA.

William W. Madden (B.S. Ch.E. '43) has sent us a note from Cape May, NJ.

Dr. John R. Mast (B.A. '33) has written from Midland, TX. He and Mrs. Mast have been members of the Texas Tech Century Club for 42 years, for which we say WOW! and raise our hats.

Dr. Joseph A. McDonough (Ph.D., '90) has accepted a position with Hoechst Celanese, Corpus Christi, TX.

Janet G. McInnis (B.A. '85) has made a career change and a change in location. Janet began as an analytical chemist with Hill Petroleum, Texas City, TX and was promoted successively to laboratory supervisor and waste-water treatment specialist. In May 1989 Janet entered Law School at Indiana University, Bloomington, Indiana where she will also earn an M.S. degree in environmental science.

Dr. Mark D. Nordyke, M. D. (B.A. '76, M.S., '78) is an orthopedic surgeon, specializing in surgery of the hand, in Lubbock.

Dr. Ching-Nan Oh (Ph.D. '77) has sent us a note from Houston, TX.

Dr. Gyoosoon Park (Ph.D., '88) has completed postdoctoral studies at Colorado State University, and has returned to Korea.

Dr. Warner L. Peticolas (B.S. Ch.E., '50), Professor of Chemistry, University of Oregon, attended the 1988 Nobel Prize Symposium in Lund, Sweden, and presented a paper "Raman Spectroscopy, Force Fields and the Dynamics of Biological Molecules." Subsequently, Prof. Peticolas attended the Nobel Prize award ceremonies and banquet.

Dr. Donald T. Robertson (Ph.D., '90) has accepted a position with Vista Chemical, Austin, TX.

Mrs. Marie McCrummen Rodgers (B.A. '46) is in Lindale, TX.

Matthew T. Ryan (B.S. '84) is living in Lubbock.

Dr. Hemanta K. Sarkar (Ph.D. '83) has returned to Texas as Assistant Professor, Department of Molecular Physiology and Biophysics, Baylor College of Medicine, Houston.

Dr. K. Jane Scott (B.S. '77), D.O. '81, Texas College of Osteopathic Medicine, has relocated her practice in general medicine with obstetrics from Denver City, TX to Lubbock.

David Siller (M.S. '79) is in Sugarland, TX.

Dr. Michael R. Smith (B.A. '80) is now in San Antonio, TX.

Dr. Robert J. Small (M.S. '64), Ph.D. Arizona, has sent us news at long last. This is his jubilee year, in fact. Bob is Director, R and D, for Wesley Industries, located on Mobile Bay, Alabama, and producing specialty chemicals at sites in Alabama and Mississippi. He joined Wesley Industries after stints in the army at Edgewood Arsenal and in Korea, with Celanese in Corpus Christi, Ashland Oil in Columbus, OH, and Ciba Geigy in McIntosh, AL. In between Korea and Celanese he was a postdoc at the University of Kentucky, Lexington. It's wonderful to hear from early-day students. We hope though that Bob (and his classmates) won't wait for the golden anniversary to get in touch again.

Dr. Byungki Son (Ph.D., '85) is working for the Lucky Corp., Daejon, Korea.

Karin Strout (B.S. '87) is working with the Michelin Co., Seneca, SC.

Cynthia Jane Thompson (B.S. '73) and husband Ray (M.S., College of Engineering, 1973) are living in Houston, TX.

Dr. Douglas A. Webb (B.S. '82), Ph.D. Cornell University, and who did undergraduate research with the late Prof. Chesnavich, is a member of the technical staff in advanced thermal processing of the Semiconductor Process and Design Center, Texas Instruments, Dallas.

Dr. Linda J. (Caudle) Wood (B.S. '78) and **Dr. Cary L. Wood** (B.S. '82) are in Valdosta, GA.

Dr. David W. Wright (B.A. '86) is now in Arlington, TX.

Dr. Max Wynn (Ph.D. '86) has completed his postdoctoral research at the University of California, Berkeley, and has joined the research staff at the University of Texas, Southwestern Medical Center, Dallas.

Dr. Il-Woo Yang (M.S., '79; Ph.D., '81) is a member of the faculty, Korea Military Academy, Seoul, Korea.

Dr. Jesse Yeh (Ph.D., '87) has accepted a position as Assistant Professor, South Plains College, Levelland, TX.

Dr. Ibrahim Yilmaz (Ph.D., '80) completed two years of postdoctoral research with Dr. Shine and a one-year appointment as Visiting Professor at Texas Tech. He has returned to Turkey where he works in the Quality Control Division of Fako Pharmaceuticals, Istanbul.

Dr. Taeh Young Zyung (Ph.D., '86) is a research scientist at the Electronics and Telecommunications Research Institute, Korea.

Death of Dr. Frederick William Rolf, early faculty member

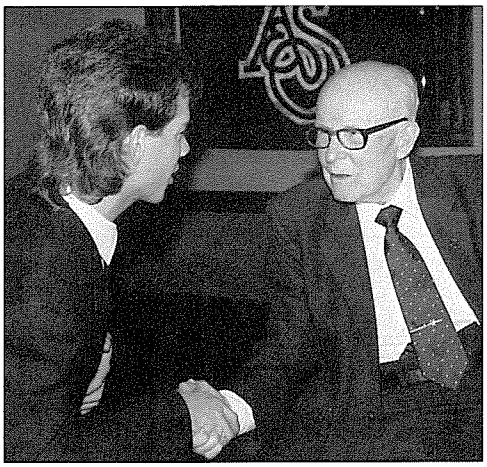
We have learned that Dr. Frederick W. Rolf passed away in his 79th year on January 24, 1990, at DeKalb, IL. Dr. Rolf joined Tech's chemistry faculty in 1937 and taught until 1942. He was an officer in the U.S. Army Corps, 1942-45. In 1945-46, he was the City Chemist for Rock Island, IL,engaged in water treatment. Thereafter, he joined the faculty of the Department of Chemistry, Northern Illinois University, from which he retired in August, 1974. Dr. Rolf was a 50-year member of the American Chemical Society. He was chairman of NIU's athletic board for 15 years, and in 1969, received the Outstanding Service Award from the NIU Alumni Association. Dr. Rolf is survived by his wife Ruth, two daughters, Carol and Martha, and a son, Robert Michael.

Death of Dr. Morris F. Stubbs

The Department has lost another old friend, Dr. Morris Stubbs, who died in Albuquerque, N.M. on March 22, 1990, at the age of 91. Dr. Stubbs was co-ordinator of general chemistry during the period of September 1963-May 1968, after having retired from New Mexico Tech. In all, Dr. Stubbs spent 57 years as college teacher and administrator. A memorial article will be prepared for our next newsletter.

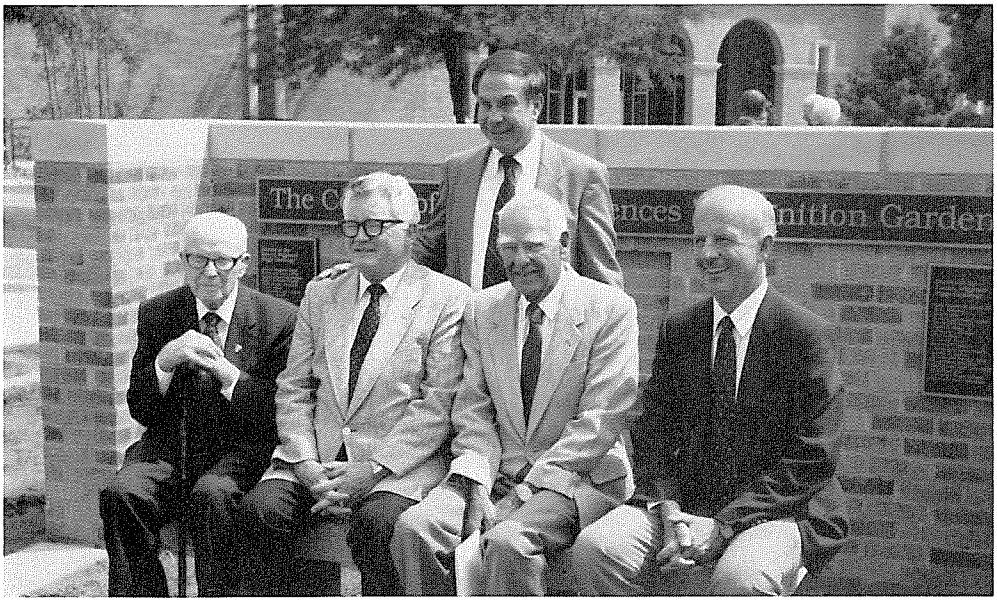
Dr. Robert C. Goodwin Visits the Department.

The Department had the rare delight of a visit from one of its early chairmen, Dr. Robert C. Goodwin, on Saturday, May 6, 1989. The occasion was part of a weekend of celebrations, the Deans' Weekend of the College of Arts and Sciences. During that weekend all but one of the now living Deans of the College were on the campus. Among them, of course, was our own former faculty member, former chairman, former Dean of the Graduate School, second Dean of Arts and Sciences, former Vice President for Academic Affairs, and former President, Bob Goodwin. On the afternoon of May 6, the celebrations turned to the Department of Chemistry, and after them Dr. Goodwin, now confined to a wheelchair for strenuous journeys, was given a tour of the renovated north wing, the wing that was once simply THE chemistry building. He was much moved by what has come of the Chemistry Department from the time he first joined it in 1930. In the renovated north wing, the spanking new classrooms, labs and instrument rooms were eye-openers, but the tour-de-force was the old attic, once a vast storage area with some make-shift (but valuable) office and infrared lab space, but now full of biochemistry research and teaching labs and offices. For those of us who were his colleagues in the Department, as well as for those who came to the Department later, it was a grand occasion to welcome back one of the beginners of what we now are and of what the future will be.



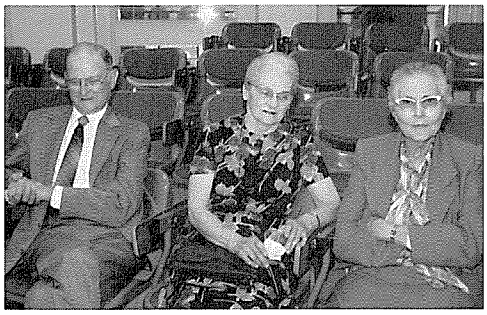
Deans' Weekend Banquet. Dr. Robert C. Goodwin and an Arts and Sciences student.

Deans' Weekend. Dr. Robert C. Goodwin and Kathryn Durham, former, long-time administrative assistant in the Dean's office, College of Arts and Sciences.



Deans' Weekend. Dean of Arts and Sciences Joe Goodin with former Deans Robert C. Goodwin, Sabe McClain Kennedy, Lawrence L. Graves and William B. Conroy.

Deans' Weekend celebration in the Department. Mrs. Jane Bradley (L) and Mrs. Dorcas Hailey.



Deans' Weekend celebration in the Department. Former Chairman and Mrs. Joe Dennis with former, long-time member of the faculty, Associate Professor Margret Stuart.

Deans' Weekend. Dr. Robert C. Goodwin and Mrs. Curry (Fran) Holden.

Texas Tech University

Department of Chemistry and Biochemistry
Box 4260
Lubbock, Texas 79409-1061
(806) 742-3067

WE NEED YOUR HELP!

The Department of Chemistry and Biochemistry needs your help for two important projects.

The first is **Operation Friend Find.** To make certain that future newsletters and other departmental mailings reach as many of our graduates, ex-postdocs and other friends as possible, we need to update our address list. Please take a moment to complete the attached form and drop it in the mail. Then we will know that we have your correct address. (Don't forget to send us an address change if you move.) In addition, we ask that you contact former classmates to see if they received their copies of the 1990 Test Tube. If not, either a note or a phone call to (806) 742-3067 will allow us to update the listing. Many thanks for your help with Operation Friend Find.

The second project is **Operation Alumni Scholarships.** As you may remember, my predecessor, Prof. Bartsch, enclosed last year an urgent appeal for help in building a scholarship fund to alleviate our critical shortage of scholarships for current students and to attract promising new students. After our second-year of operation we have $4,229 in the fund. Thus we are well along the way to endowing the first Alumni Scholarship. (My apology to our female graduates. Unfortunately the more accurate title of Alumnae and Alumni Scholarships seems cumbersome.) Please help us realize our objective by writing a check to the **Alumni Scholarships Fund** and sending it to me with the attached form. Thanks for your help with Operation Alumni Scholarships!

With your assistance, the Department of Chemistry and Biochemistry will become even better. We look forward to hearing from you.

David B. Knaff
Chairman

Please complete and return to: Chairman, Department of Chemistry and Biochemistry, Texas Tech University, Lubbock, Texas 79409-1061

* * * * * * * OPERATION FRIEND FIND * * * * * * *

Dr. Mr. Miss Ms. Mrs. _____
(circle one)

Address _____

_____

Year of Graduation and degree (if applicable) _____

Social Security Number _____

* * * * * OPERATION ALUMNI SCHOLARSHIP * * * * *

Enclosed is my check made out to the Alumni Scholarship Fund.

Amount ____ $50.00 ____ $25.00 ____ $15.00 ____ Other

My employer participates in a matching program for donations by employees.

Please contact: _____

_____

_____

Classnotes

Do you enjoy reading about friends and classmates? Why not return the favor—drop us a line and a (preferably black and white) photo.

☐ Married?	☐ New Job?	☐ New Baby?
☐ Promoted?	☐ Take a Trip?	☐ See a Classmate?
☐ Moved?	☐ Back in School?	☐ Other?

Send us details: _____

_____

_____

_____

Name _____

Class _____ College _____

Address (____ New?) _____

_____

_____

Where are you, Alums?

Let your news pour in. Send it ***now*** before you forget, and before your good intentions join all others in paving the road to you know where.

Texas Tech University
Department of Chemistry &
Biochemistry
Lubbock, Texas 79409-1061