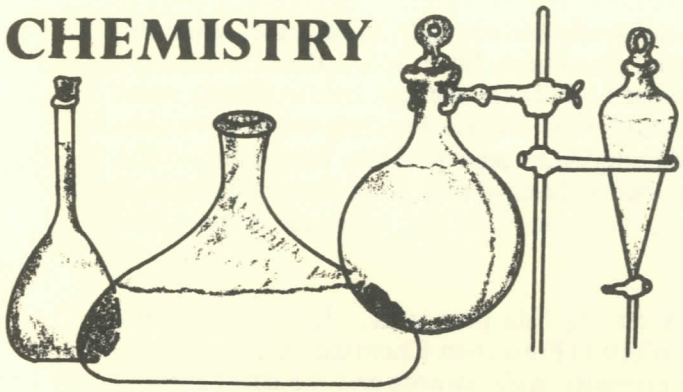
DEPARTMENT of CHEMISTRY

NEWSLETTER

UNIVERSITY of TEXAS - AUSTIN

No. 11 1989

CHEMISTRY



UT AUSTIN

Table of Contents

From the Chairman	1
Endowment Program	4
Contributors	6
Feature Article	8
Faculty Honors	9
From the Graduate Adviser	10
Departmental Database	10
Graduate Degrees	11
Graduate Awards	14
Graduate Recruiter	15
Undergraduate Awards	16
Undergraduate Degrees	18
Undergraduate Adviser	19
Vista Lectureship	19
Chemistry Librarian	20
Lester J. Reed Honored	20
Student Science Training Program	21
ACT_2 Conference	21
Fall Enrollment	21
In Memoriam	22
Alumni News	24

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Mail address: Chairman, Department of Chemistry, The University of Texas at Austin, Austin, TX 78712-1167.

From the Chairman

Once again the time has arrived to share news of the Department with those of you who have been associated with us as students, research associates, faculty, and friends. I hope that the articles in this newsletter, edited by Mary Jane Kelly, will convey a sense of the excitement shared by the current faculty, staff, and students in the various activities in which we are involved. If they do, our efforts in generating them will have been a success.

The Department enjoyed a *banner* year in recruiting new faculty for the 1989-90 academic year. This success came in the face of increasingly intense competition for those few candidates who have the qualities commensurate with a tenure-track appointment on our faculty. I noted in last year's newsletter that Jennifer Brodbelt-Lustig would be joining us as in analytical chemist this year. Subsequently, we recruited three additional faculty at the level of assistant professor: Eric Anslyn and Brent Iverson in organic chemistry, and John McDevitt in inorganic chemistry. Dr. Iverson will arrive here for the 1990 academic year following completion a second year of postdoctoral work at Scripps. Brodbelt-Lustig, Anslyn, and McDevitt are coming to us after postdoctorals at UC-Santa Barbara, Columbia, and the UNC-Chapel Hill, respectively. All three of these faculty have already received initial funding of their research, and we are all looking forward to their development as outstanding teachers and scholars in our Department.

Last year I reported to you that we had been successful in recruiting Prof. Philip Magnus to UT-Austin. He has now arrived and is making a most positive contribution to the Department. Moreover, we welcome Prof. Alan Cowley back to the faculty. Alan had accepted a prestigious position at Imperial College in London, but we were eventually able to convince him to return here. It is probably inevitable that we shall lose tenured faculty to other institutions, but it was reassuring to win this particular "battle" with Great Britain.

We also suffered some losses from our faculty. Dale Mosbaugh accepted an appointment as associate professor at Oregon State University and Ron Conaway is moving to the Oklahoma Research Institute. Both of these colleagues are biochemists, and their departure makes recruiting of replacements in their area a high priority for us.

Members of our faculty continue to earn recognition both locally and abroad. A listing of some of the honors accorded the faculty this past year is contained elsewhere, but it is worthwhile to note here the success the Department had in obtaining promotions for its faculty. Kuan Wang was promoted to Full Professor and Tom Mallouk and Jon Sessler both received early promotion to the rank of Associate Professor with tenure. All of the faculty here take pride in the recognition accorded these three in the form of their promotions, but their new ranks are the result of the superb records each of them has achieved in teaching, research, and the other activities that comprise the duties of a member of academia.

The staff in the Department also have reaped awards during this past year. Joyce Thoresen (Alumni and Industrial Relations Office) and Marilyn Whites (Freshman Chemistry Office) both received the President's Excellence Award. These are university-wide awards and the competition for them is extremely great. In addition, several of our staff received certificates for their years of service to the Department and University. These individuals are listed below. Finally, two long-time members of our staff will retire this fall. They are John Somerville, who has been with us as a glassblower for 26 years, and Irven Simpson, who has provided expertise in electronics repair and programming in our Instrument Design and Repair facility for 21 years. Both of them will be greatly missed.

Floyd Maseles	Mass Spec Laboratory	30 years
Debora Bittaker	Journal of Chemical Education	10 years
Ingrid M. Huskey	Richard Friesner & Peter Rossky	10 years
Kay Jamison	Procurement Office	10 years
Mike Mott	Research Storeroom	10 years
Don Niebauer	Instrument Design and Repair	10 years
Steve Sorey	NMR	10 years

The Department continued its expansion of activities designed to give it greater visibility to students at both the high school and undergraduate levels. We hosted our first ever Career Day for high school students from the Austin area. The subsequent reports we received from their teachers encourage rep of this effort this year and on an expanded basis. We also hosted a workshop in modern NMR spectroscopy for faculty from small colleges in Texas and neighboring states. This highly successful two-week course was organized and led by Dr. Ben Shoulders and was jointly funded by the NSF and the Department. The benefits of this workshop include updating faculty on techniques that are useful to them in their own teaching environments and to expose the participants to the facilities at UT-Austin with the hope that they might encourage their students to enter graduate school here.

The State Legislature was not particularly generous to us in the biennial session that just concluded, largely because the Governor was committed to "no new taxes" (sounds familiar, doesn't it). Nevertheless, for the third consecutive biennium it set aside a large amount of money,

$60 million for 1989-91, to support research at institutions of higher education. This is the largest such fund in all 50 states and emphasizes the Legislature's recognition that the economic future of Texas rests in a highly educated work force able to develop and implement businesses based on high technology.

Besides providing funds for higher education, the Legislature also passed, and the Governor signed, an act that potentially has dramatic ramifications for us. Effective immediately, age cannot be the basis for mandatory retirement in academic institutions. Although such legislation was pending at the Federal level, its immediate imposition in the State obviously precludes the type of planning that would ease the problems associated with its implementation. Many of us are concerned that this regulation will have a stultifying effect on the availability of tenure track positions for young people and might well make potential careers in academia much less desirable. We can ill-afford a further decline in the number of qualified applicants for entry-level positions, as the competition for highly qualified individuals is already intense, as I noted earlier.

In closing, I encourage you, as I did last year, to consider the Department of Chemistry when allocating your charitable gifts. Contributions from our alumni and friends are crucial to the continued health and development of our various programs. And should you wish to learn more about our activities, please do not hesitate to contact me or to request a copy of the most recent edition of the departmental brochure.

John C. Gilbert
Chairman

ENDOWMENT PROGRAM

The various academic activities of the Department continue to benefit.from unrestricted and restricted contributions being made to it by individuals and corporations. Over $150,000 was donated during this past year, much of which was directed into the endowment program undertaken over two years ago. The table below contains a summary of the major activities of this past year.

Endowment	*Purpose*	*Goal*	*'88-89 Cash/Pledges*	*Need*
Gilbert Ayres	Scholarships/Fellowships	$25,000	$ 4,350	$10,650
DOW Alumni	Scholarships/Fellowships	$10,000	$ 1,155	$ 8,845
Faculty	Scholarships/Fellowships	$25,000	$13,000	$12,000
H.L. Lochte	Scholarships/Fellowships	$10,000	$ 6,875	$ 3,125
H.R. Henze	Teaching Awards	$10,000	$ 4,300	$ 5,700
L.O. "Tom" Morgan	Scholarships/Fellowships	$25,000	$ 4,050	$20,950
Marie Smith	Scholarships/Fellowships	$25,000	$ 2,585	$22,415
R.E. "Bill" Eakin	Scholarships/Fellowships	$10,000	$ 3,250	$ 6,750
R.M. Roberts	Scholarships/Fellowships	$25,000	$10, 550	$14,450
S.H. Simonsen	Scholarships/Fellowships	$25,000	$18,615	$ 6,385
Vista Lectureship	Visiting Speakers	$33,700	$33,700	$0

With the exception of the "Henze" endowment, all the endowments are eligible for 1:2 matching monies from the Board of Regents. The *corpus* of each such fund therefore will eventually be 50% greater than the "Goal" listed in the table, once the stated amount has been raised externally. *An even larger increase* of the *corpus* will be possible for the "Faculty" endowment for scholarships and fellowships. This is because two anonymous donors have agreed to match up to $25,000 of the faculty's contributions on a *2:1* basis. Matching by the Regents of the $75,000 that would result would provide a fund totalling in excess of $100,000 to support awards to students. The target date that has been set for completion of each of these efforts is August, 1991, and it is obvious that this represents a major challenge for several of the endowments that are listed.

As you can see from the accompanying table, the primary goals of our current campaigns are student awards at the undergraduate and graduate levels: A total of over $60,000 was allocated to such awards this past year and an increase to $80,000 is projected for 1989-90. *You may wish to support one of the specific efforts listed or to indicate some other use of your contribution by so designating on the envelope enclosed in this newsletter.*

I discussed the importance of the endowment program in last year's Newsletter. Despite the fact that UT-Austin is one of the beneficiaries of the income on over 3.2 billion dollars in the Permanent University Fund (PUF), these monies are generally used to replace taxpayer's dollars in support of higher education. Indeed, statistics show a continuing *decrease* in the percentage of funding of the University's activities that are funded by the State Legislature; the fact that our overall budget has

shown increases is largely the result of growth in the PUF and the income derived from it. There is no question in my mind that the PUF has served and will continue to serve as a buffer against the increasing demands on and by the taxpayers of the State of Texas to support activities *other* than higher education. This makes it all the more imperative that the Department have available endowment income that can be used to maintain excellence in its teaching and research environments.

We all are constantly being inundated with pleas for contributions to a large number of worthwhile causes. Unfortunately many of us tend to think of large publicly supported universities as having a low priority in terms of where our hard-earned dollars destined for "tax-deductible" purposes should go. I would hope that you would think about how your residence in the Department has benefitted you through the years and return some of its "largesse" in the form of making it a part of your personal annual giving program. **I assure you that your participation, on whatever scale, does make a difference!**

A listing of those who have contributed monies to the department during the twelve months ending in June, 1989, is included on the following pages. This list is the department's way of publicly expressing its appreciation for the gifts made to it. Hopefully the compilation is complete, but if you made a contribution and it is not acknowledged, please let me know. On behalf of the entire faculty, I again thank those of you who have contributed your dollars to the Department, and I hope that you will continue to do so.

The department has recently set up a display of plaques honoring endowed faculty and students that have been recognized by the department. The plaques are in the display cases on the main floor as you enter from 24th Street.

INDIVIDUAL CONTRIBUTORS

June 1, 1988 - June 30, 1989

Angels: Contributors of $10,000 and up

Anonymous

Patrons: Contributors of $2,000-4,999

Mrs. Esther A. Eakin
Dr. Richard D. Goodin

Grand Benefactors: Contributors of $1,000-1,999

Dr. Carlos de Llano
Dr. Gilbert Ayres
Dr. K. H. Bantel
Dr. Chow-Eng Low
Dr. Charles M. Maddin
Dr. Toshitumi Morita
Mr. John T. Murchison
Dr. George Wash

Benefactors: Contributors of $500-999

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Dr. Donald M. Carlton
Dr. John C. Gilbert
Dr. Erwin Kohn
Dr. & Mrs. Harry Lochte, Jr.
Dr. Stephen F. Martin
Dr. Yoshito Takeuchi

Sustainers: Contributors of $250-499

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Dr. M. B. Knowles
Dr. James D. Korp
Dr. Lester Reed
Dr. Charles G. Skinner
Dr. & Mrs. Edward Wheeler

Supporters: Contributors of $100-249

Dr. Steven Alexander
Dr. James Arno
Dr. William T. Bolleter
Mrs. Marilou D. Brown
Dr. W. W. Crouch
Dr. Herschel H. Cudd
Dr. John P. Cummings
Mr. Richard Darst
Drs. Michael J.S. & Mary Dewar
Dr. Philip R. DeShong
Mr. Michael Eakin
Dr. Michael W. Edens
Dr. Steve Edmondson
Dr. M. L. Ellzey, Jr.
Dr. J. B. Eppner
Dr. Marye Anne Fox
Dr. Joseph S. Francisco, Jr.
Dr. Ricardo Fuentes, Jr.
Dr. Kennon M. Garrett
Mr. James H. Goble, Jr.
Dr. Edward D. Golla
Mr. William A. Gros
Mr. Ralph E. Guerra
Mr. Bryan M. Hale
Dr. Y. W. Han
Dr. Richard L. Harlow
Dr. Janice Maxine Jenks
Dr. Lal C. Kamra
Dr. Bruce Arthur Kowert
Dr. Joseph J. Lagowski
Dr. Ray A. Loghry
Dr. Thomas E. Mallouk
Dr. Jack B. Martin
Dr. F. A. Matsen
Dr. James L. Ogilvie
Mr. Claud W. Payne
Dr. Joanne M. Ravel
Drs. James & Claudia Richter
Dr. Royston M. Roberts
Dr. Henry G. Schutze
Dr. William A. Seitz
Dr. Kennith A. Smith
Dr. James W. Vick
Dr. William H. Wade
Dr. & Mrs. Herbert Weiss
Dr. John M. White
Mr. John Lee Yates
Ms. Warunee Yongskulrote
Mr. David M. Young, Jr.
Dr. Daniel M. Ziegler

Donors: Contributors of up to $100

Dr. Khalil A. Abboud
Dr. Thomas H. Arnold
Dr. James Boggs
Dr. Thomas E. Bridge
Ms. Sydney Diana Burton
Dr. Alan Campion
Mr. Russell Catalano
Dr. Raymond E. Davis
Dr. Louis E. DeMoll III
Dr. Cecil R. Dybowski
Mrs. Sandra G. Dykes
Norman & Debbie Edwards
Mr. William E. Fann, Jr.
Mr. Thomas R. Felger
Dr. Eugene M. Friedman
Dr. William C. Gardiner
Mr. Adam Garza, Jr.
Mr. Osvaldo Goscinski

Dr. Marvin L. Hackert
Mr. Kenneth F. Hildreth
Dr. Kenneth A. Hill
Ms. Joan B. Hunter
Dr. Ronald J. Jandecek
Dr. Robert G. Landolt
Mr. David R. Langley
Mr. Sheldon B. Magid
Ms. Judith A. Mazoh
Mr. Michael Melik-Hovsepian
Dr. Edgar F. Meyer
Mr. Donald G. Middleton
Mr. Jose R. Ortiz
Ms. Katherine E. Patterson
Dr. Seymour Pomerantz
Ms. Lori Prager
Dr. & Mrs. Joseph Rafalko
Mr. Howard N. Richards
Ms. Patricia Riley
Mr. Thomas R. Rogers
Dr. Peter J. Rossky
Mr. Francis O. Roy
Mr. Robert F. Schenkkan
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Mrs. T. C. Shields
John & Susan Sinnott
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Dr. Steven Swinnea
Mr. Stuart N. Thomas
Ms. Carol May Thompson
Mr. John E. Throckmorton
Dr. Rick A. Wetsel
Mr. Richard Whitman
Mrs. R. R. Wiley
Mr. Billy B. Wylie
Ms. Dorca M. Zaragoza

CORPORATE AND FOUNDATION CONTRIBUTORS

Angels: Contributors of $10,000 and up

The Dow Chemical Company Foundation
E. I. du Pont de Nemours and Company, Inc.
Minnesota Mining and Manufacturing Company
Shell Oil Company Foundation
Vista Chemical Company

Grand Patrons: Contributors of $5,000-9,999

Hoechst Celanese Corporation

Patrons: Contributors of $2,000-4,999

American Chemical Society-Brazosport Section
American Chemical Society-Southeastern Texas
Council for Chemical Research, Inc.
Dow Chemical U.S.A.
Eastman Kodak Company
Mobay Foundation
Pennzoil Products Company
Radian Corporation

Grand Benefactors: Contributors of $1,000-1,999

Austin American Technology
Baxter Healthcare Corporation
Monsanto Fund

Benefactors: Contributors of $500-999

American Chemical Society-Central Texas Section
American Cyanamid Company
Exxon Education Foundation
Hartford Steam Boiler
Phelps Dodge Foundation
American Chemical Society-Texas A&M Section

Supporters: Contributors of $100-249

The Aerospace Corporation
General Electric Foundation
Halliburton Foundation, Inc.
IBM Corporation
Phillips Petroleum Foundation, Inc.
RJR Nabisco
Texaco Philanthropic Foundation, Inc.

Donors: Contributors of up to $100

PPG Industrial Foundation
SmithKline Beckman Foundation

FEATURE ARTICLE

POLYMER RESEARCH IN THE DEPARTMENT OF CHEMISTRY

Historically, polymer chemistry has been grossly under-represented in academic chemistry departments in the United States compared to its importance to the economy and the chemical profession. While the reasons for this are complex and tied into the "sociology" of science, our Department, like many other major research departments around the country, has experienced a movement into this field by many of our faculty despite their lack of formal training in this specialization. This is the result, in part, of funding pressures and/or opportunities, but also the ability to use these materials to achieve many of the objectives of modern materials research.

Several years ago the Center for Polymer Research was established at the University of Texas, primarily to foster interactions between various scientists working in this area. Initially only three members of the Department of Chemistry were included in this group, which had in its center of mass the Department of Chemical Engineering. There are now seven of our faculty involved in this Center,. These are:

1) Marye Anne Fox: polymer modified electrodes, conducting polymers, ceramic/polymer composites, polymers for directional electron or energy transport.

2) Richard J. Lagow: fluorocarbon polymers and elastomers, inorganic polymers, direct fluorination of polymers, structural influence on physical properties of multi-phase polymers systems.

3) Josef Michl: polysilane photochemistry and photophysics, high energy polymers, mobility of small molecules in polymers.

4) Petr Munk: thermodynamics of polymers and polymer solutions, sedimentation analysis, inverse gas chromatography.

5) Jonathan L. Sessler: synthetic biopolymers and their analogs, artificial oligonucleotides, DNA-like templates to prepare block co-polymers.

6) Stephen E. Webber: photophysics and photochemistry of polymers, energy transfer and multiphotonic processes, charge separation processes.

7) James K. Whitesell: development of organic and polymeric materials for non-linear optical applications.

While all of these faculty members are working on individual research projects, the Center sponsors some seminars, encourages the preparation of courses in polymer science (there are distinctly different courses offered in Chemistry and Chemical Engineering), and provides a mechanism for collaboration. This effort provides an example of inter-disciplinary research and bridging the gap between basic research and technological applications.

Incidentally, we should make mention of our Chemical Engineering colleagues: Donald R. Paul (Director), Joel W. Barlow, Jeffrey A. Hubbell, Henno Keskkula, William J. Koros, Douglas R. Lloyd, and Isaac C. Sanchez.

Stephen E. Webber

FACULTY HONORS

Eric Anslyn, assistant professor, was named to a Camille and Henry Dreyfus New Faculty Award for 1989. Only ten such awards were made nationally.

Allen Bard, professor and editor of the Journal of the American Chemical Society, was recently elected as vice-president of the International Union of Pure & Applied Chemistry. This election makes Dr. Bard president-elect of IUPAC and he will become president in 1991.

Alan Campion, professor, was presented the annual Jean Holloway Award for Excellence in Teaching. The Jean Holloway award was established through the Ex-Students' Association in 1970 by Sterling and Jean Holloway to recognize outstanding teaching in the liberal arts and natural sciences. Dr. Campion is the first recipient from the College of Natural Sciences since 1980.

Michael Dewar, professor, has been awarded the 1989 Tetrahedron Prize for Creativity in Organic Chemistry. The prize, which is the major international award for organic chemists, consists of a $10,000 honorarium and a gold medal. Dr. Dewar is the fifth recipient (the third American) of the award which was founded in 1980 by the executive board of editors and the publisher of Tetrahedron Publications.

Karl Folkers, professor and director of the Institute for Biomedical Research, received an Honorary Doctorate in Medicine from the University of Bologna on May 22, 1989. He is the first American to receive an honorary medical degree from the Italian government. The ceremony marked the 900th anniversary of the University of Bologna. Folkers was honored for his pioneering contributions in the areas of vitamin B_{12}, vitamin B_6, penicillin, streptomycin, coenzyme Q_{10}, cortisone, and thyrotropin releasing hormone.

Marye Anne Fox, professor, was named a 1989 Arthur C. Cope Scholar.

Thomas Kodadek, assistant professor, received a three-year, $90,500 Junior Faculty Research Award from the American Cancer Society. Dr. Kodadek will study "The Biochemistry of Homologous Recombination."

Joseph Lagowski, professor and editor of The Journal of Chemical Education, has been named the winner of the 1989 American Chemical Society Award in Chemical Education during the annual meeting of the ACS in Dallas. The award consists of a $5,000 honorarium and an inscribed certificate. A Division of Chemical Education award symposium was held in Dr. Lagowski's honor on April 10. At that symposium, he presented an award lecture, "Chemistry's Imperative: Evolve or Die."

Philip Magnus, professor, was appointed to the R.P. Doherty Jr.-Welch Regents Chair in Chemistry.

Jon Robertus, professor, was named to the Benjamin Clayton Professorship

Jonathan Sessler, associate professor, was named a Dreyfus Teacher-Scholar.

Mike White, professor, recently received the American Chemical Society Kendall Award in Surface and Colloid Chemistry.

From the desk of the Graduate Adviser

From the point of view of the old graduate adviser (S.E. Webber) the biggest news from this desk is that there is a new graduate adviser (P.J. Rossky). It is hoped that Pete will enjoy helping our graduate students through (and around) the maze of University of Texas rules and regulations. Our best wishes to him.

In an earlier Newsletter (1987) it was pointed out that the Department of Chemistry had instituted a pilot program to help our foreign teaching assistants adjust to both the culture and the expectations of American students as well as provide instruction in appropriate English usage in teaching situations. This program became the model for a University--wide system of language and orientation for international TA's that is now mandated by the State of Texas. Hopefully this program will satisfy the needs of both the undergraduates, who rightly want to be able to understand what their TA is saying in a laboratory or classroom situation, and the international graduate student, who would like to know what is expected of him or her.

A program that has been in place for the last few years that should be of interest of our alumni is the "summer intern program." This program has been part of our graduate student recruitment effort and has been run jointly by the Graduate Adviser and the Graduate Recruiter. The objective of this program is to place our entering graduate students in an industrial laboratory for the summer before they begin their graduate studies. It is believed that this arrangement benefits all parties: 1) the graduate student earns a good deal more money that the typical summer job and gains some insight as to the nature of industrial chemistry; 2) the company gains a temporary employee that it may be interested in recruiting after the completion of the graduate degree as well as gaining a useful contact person among the ranks of our graduate students; and 3) we have an extra inducement for a graduate student to enter our program. While the concept is simple, its execution can be difficult because of the multiple deadlines that exist for a company to fill its open positions for the summer, the graduate school deadlines, and the time it takes for a prospective graduate student to make up his or her mind about which graduate school to attend. However, if any of you are in companies in which there are summer research positions and you would like to participate in this program, please feel free to contact the Chairman (512-471-3949) or the Graduate Recruiter (471-4538) and we will try to work with you.

DEPARTMENTAL DATABASE

We have been hard at work trying to restore the database of alumni and friends of the Department of Chemistry. Although a database was originally developed over ten years ago, a number of problems led to its demise. The present database has been compiled from a combination of information available in the department and at the Ex-students Association, and we now have over 3300 individual records in the file. Individuals receiving this newsletter should find a copy of the information we have. Please review our data for you, make any corrections to it that are needed, using the "key" printed on the back of your record should you have questions about the data needed, and return it to us so that your record can be updated. *Thanks!*

GRADUATE DEGREES AWARDED

Spring 1988-Spring 1989

Doctor of Philosophy

Belhadj, Mahfoud — with R. Friesner
Vibronic Interactions in Absorption on Resonance Raman

Blass, Peter — with J. M. White
Surface Analytical Studies of K and KOH on Ag(III), and of Benzene and Bis(benzene) chromium on Ni(100).

Bright, Theresa — With R. Jones
Preparation and Reactivity of Transition Metal Complexes Containing Phosphido and Sulfido Ligands.

Britt, Philip — with M. A. Fox
Photophysics and Photochemistry of Anthracene-Substituted Methacrylate Polymers and their Bichromophoric Model Compounds. Generation of Sensitized Photocurrents at a Polymer Modified Semiconductor Electrode.

Bush, Benjamin — with J. J. Lagowski
The Chemistry of Bis(n^6-Napthalene) Chromium.

Copeland, William — with J. Robertus
Cloning, Sequencing and Site-Directed Mutagenesis of the Gene for Prohistidine Decarboxylase from *Lactobacillus* 30a.

Dai, Yuan-fang — with A. Campion
Solid State and Surface Spectroscopic Studies of High Temperature Superconductivity and Heterogeneous Catalysis.

Deng, Hung-Yin — with B.Hardesty
Flourescence Energy Transfer Studies of a tRNA Binding Sites on the Ribosome.

Elkins, Tammy — with A. Cowley
Synthesis of Some Late Transition Metal and Main Group Organosilyl Compounds.

Garcia, Edwin — with A. J. Bard
The Study and Electrochemical Generation of Highly Oxidized Compounds in Liquid Sulfur Dioxide.

Hall, Stephen — with A. J. Cowley
Phospha-alkynes: Exploration of the Phosphorus-Carbon Triple Bond.

Heaton, Duane — with R. Jones
Multinuclear Dialkylphosphido and Alkylphosphinidene Complexes of the Platinum Group Metals.

Henderson, Michael — with J. M. White
The Surface Chemistry of C_2 Species Ru(001)

Hwang, Soon Muk — with W. Gardiner
Shock Tube and Modeling Study of Methyl Radical Self Reaction.

Jiang, Xudong — with A.Campion
Studies on Chemical Effects in Surface-Enhanced Raman Scattering and the Mechanism of the Methanation Reaction.

Johnson, Martin — with J. Sessler
Synthesis and Characterization of Quinone Substituted Octaalkyl Porphyrin Monomers and Dimers: Models for Bacterial Photosynthetic Reaction Centers.

Kamioka, Keiko — with S. E. Webber
Intramolecular Energy Transfer and Photoionization in Polyvinylaromatics.

Kelly, Terence — with J. Gilbert
Diastereoselective Formation of Contiguous Quaternary Centers by way of [3.3] Sigmatropic Rearrangements: A Highly Convergent Route to the Trichothecene Sesquiterpenes.

Kidd, Kenneth — with R.Jones
Synthesis, Characterization and Application of Novel Organometallic Precursors for Organometallic Chemical Vapor Deposition.

Kiwiet, Nicoline — with M. A. Fox
Laser-Induced Photoelectrochemistry at TiO_2 Electrodes: An Investigation of the LITOP Technique.

Niu, Xiao-da — with L. J. Reed
Cloning and Expression of the LAT1 Gene Encoding Yeast Dihydrolipoamide Acetyltransferase Studies on BovinePyruvate Dehydrogenase Phosphatase.

Pojman, John — with J. K. Whitesell
Theory of Polymer Interchange Reactions and Experimental Investigations of Mandelic Acid Polymerization.

Reynolds, Daniel — with N. Bauld
Mechanistic Aspects of Cation Radical Pericyclic Reactions: Bronsted Acid Versus Cation Radical Catalysis, Cyclobutane Versus Diels-Alder Periselectivity, the Vinylcyclobutane Rearrangement and Diene Triplets from Back Electron Transfer.

Sackett, Debra — with M. A. Fox
Electron Transfer Reactions and Heterogeneous Catalysis of Organic Molecules.

Wang, Zhigang — with D. Mosbaugh
Molecular Cloning of Bacteriaphage PBS2 Uracil-DNA Glycosylase Inhibitor Gene and Effects of its Expression on *Escherichia coli.*

Xu, Wei-xin — with M. L. Hackert
Structural Studies of Multienzyme Complexes and an Invertebrate Hemoglobin by X-ray Crystallography and Scanning Transmission Electron Microscopy.

Xie, Yaoming — with J. E. Boggs
Predicted Vibrational Spectra at Different Theoretical Levels.

Master of Arts

Auschitzky, Eric — with J. M. White
Adsorption of H_2O and H_2S on Thin Films of Cobalt Oxide on Alumina.

Bligh, Richard Quin — with A. J. Bard
Cyclic Voltammetry and Digital Simulation of the Reduction of Thianthrene and Related Complexes of Iron.

Clark, David — with R. E. Wyatt
The Effects of Explosive Shock Wave Propagation Through a Solid Molecular Structure.

Flosnik, Thomas — with R. E. Wyatt
A Complex Effective Hamiltonian Approach for IR Multiphoton Dissociation Processes in the Semi-Classical Quantum Molecular -Classical Field Representaton.

Wiley, Margaret — with G. B. Kitto
Studies on the Instability of Hemoglobins from the Sea Cucumber *Molpadia arenicola.*

Wong, Catherine — with M. L. Hackert
A Study of the Proactive Site and Cleavage of S81A Mutant Prohistidine Decarboxylase.

GRADUATE FELLOWSHIPS AND AWARDS

DEPARTMENTAL FELLOWSHIPS

Holly Swajian

CHARLES MORTON SHARE GRADUATE FELLOWSHIP

David Bartley
Joey Pierce

CONOCO FELLOWSHIP

Doug Clendening

DOW ALUMNI FELLOWSHIP

Dan Dean

EXXON EDUCATION FOUNDATION FELLOWSHIPS

Maria Dulay

LOCHTE FELLOWSHIP

Katherine Holden Howard

MAHLER MEMORIAL FUND

Bret Frost

MONSANTO FELLOWSHIPS

Dawn Riegner

SHELL GRANTS IN AID FELLOWSHIPS

Jordan Travis
John Nail
Christopher Oalmann
James Hilbert

VISTA CHEMICAL FELLOWSHIPS

Ken Yaser

R. A. WELCH GRADUATE FELLOWSHIPS IN CHEMISTRY

John Hart
Erika Kichmann
Tarak Mody
Tracy Donovan

From the Desk of the Graduate Recruiter

One of the highlights of the previous year of graduate recruiting was the continuation of our premier fellowship program that was established at the University of Texas with a generous grant from the Robert A. Welch Foundation. As a consequence of this program, we have been able to attract several students with exceptional promise to pursue their graduate studies. These first year Robert A. Welch Fellowships in Chemistry now carry a twelve month stipend of $16,100 ($3,500 fellowship) as well as a reduced teaching requirement, which allows recipients to begin their graduate research at the earliest possible stage of their careers. In their second year, these fellows will receive a $3,500 fellowship to supplement their normal teaching or research assistant stipends. Faculty members from institutions nationwide nominated outstanding students for these prestigious fellowships, and this year's recipients are: Beth Ann Trust (Western Maryland College); John A. Benner (DePauw University); and Michael Holan (Southwestern University). Congratulations! The department is indebted to Dr. Norman Hackerman and the Board of Trustees of the Robert A. Welch Foundation for their continued support of excellence in our graduate program.

We also congratulate Mr. Matthew Magnuson (University of Oklahoma) for receipt of a Charles Morton Share Fellowship. Other students who received Departmental Fellowships are: Vicki Vermillion (Abilene Christian University), David Riley (West Virginia University), Deidre Sue King (New Mexico State University), David Mitchell (Beloit College), Ann Osborn (College of St. Catherine), Laura B. Pasternack (University of New Mexico), Kevin Boudreaux (Louisiana State University), David Breslin (Rochester Institute of Technology), Kathlynn Brown (Trinity University, California Institute of Technology), Anne Marie Kelly-Rowley (Central Michigan University), Bruce Kellerman (Rhodes College), Mark Tesauro (Georgia Institute of Technology), and Maria Curelaru (University of Utah).

As you may remember from last year's column I mentioned that the number of completed applications we received from both domestic and foreign students fell dramatically from the previous year. I am pleased to announce that during this past year there was a significant increase in the number of applications. Of the 168 domestic applicants, 133 were made offers of financial support. The number of foreign applicants was 181, nearly double that from the previous year; however, since the competition for the limited Teaching Assistant positions available to foreign students is extremely intense, we were able to make only 25 such offers. Not only was the total number of completed applications up over the past year, but so was the number of acceptances, and there will be approximately 56 new graduate students, an increase of some 35%, joining our program in the Fall of 1989. Of these 21 are women and 5 represent minorities. Once again, we were highly successful in attracting those students to our program who visited the Department, and more than 50% of those who visit ultimately accept our offers.

We will continue to develop an aggressive program to attract more applicants and students to our program. For example, we will invite juniors from other universities to participate in a Summer Research Program, and we will continue the tradition of holding annual meetings in the Department for professors and students from other undergraduate institutions. We are actively trying to enhance our fellowship program and increase graduate research and teaching stipends. Responding to a challenge grant from anonymous donors, the chemistry faculty is presently making contributions to establish an endowment for graduate student fellowships. We also initiated a cooperative program with industries both in the state and out to establish a Summer Internship Program for incoming graduate students.

Stephen F. Martin

UNDERGRADUATE AWARDS

TEXAS INSTITUTE OF CHEMISTS

Grace Tingcol Hu
Jason Ben Shear

AMERICAN CHEMICAL SOCIETY OUTSTANDING SENIORS

John Ashley Rogers
Albert Andrew Yen

CRC PRESS FRESHMAN CHEMISTRY ACHIEVEMENT

Natalie Moon Kim

MERCK & CO., INC. BOOK AWARD

Richard Teson Hung
David Menassah Raizen

W.A. FELSING MEMORIAL AWARD FOR OUTSTANDING PERFORMANCE IN PHYSICAL CHEMISTRY COURSES

Timothy Holly Murphrey

SOUTHWESTERN MEDICAL SCHOOL M.D./Ph.D. SPECIAL PROGRAM

David Menassah Raizen
Monique Ann Spillman

UNDERGRADUATE HONORS

DEAN'S HONOR LIST FALL

CUM LAUDE

Jennifer Dawn Adamson
Abds-Sami Malik
Theresa Lynn Reding
John Ashley Rogers
Lisa Lynn Saunders
Javaid Ahmed Shad
Makoto Wajima

MAGNA CUM LAUDE

Laura Jean Christman
Thaddeus C. George
Ediz Ibrahim Gurpinar
Christopher Lee Hackert
Kirk Allen Hance
John Bret Hood
Richard Teson Hung
Mark David Lewis
Karolyn Michelle Maness
Frank Martin Pennebaker

AMPLA CUM LAUDE

Vicki Ossink Atwood
Sharon F.-H. Chen
Gina Juhwei Cho
Daniel Ray Dewberry
Vincent Larry Dimayuga
Christopher Mark Dymond
Maurie Elizabeth Garcia
Robert Daryl Hernandez
Keith Patrick Minor
Hoa Thi Xuan Nguyen
Mary Chris Petropoulos
David Taylor Reichenbach
Linda Anna Thomas
Shaena H.-C. Choi
Russell A. Chorush
Kristen Julianne Cichon
Jason Earl Clark
Vivek Dayal
Chandima S. Dehipitiya
Robert MacDonald Hands
James Francis Hauri, Jr.
Irene Yuen Hsu
Syed Imraan Husain
Jennifer Ruth Jernigan
Natalie Moon Kim
Jonathan Robert Klocek
Rachel W.-J. Kung
Christopher H. Lansford
Jeremy Sam Lankford
Louise Chee Lo

Sabiha A. Mondal
Scott Carl Nelson
Daniel Morgan Roberts
Todd Keith Sellars
Jason Ben Shear
Rashun Yvette Smith
Sabrina Debra Trieff
James Bruce True
Victor Harry Vartanian
Mark Andrew Wall
Chun Kai Wang

DEAN'S HONOR LIST SPRING

SUMMA CUM LAUDE

Ayesha C. Ercelawn
Ferdinand Robert Tan
Sarah White

CUM LAUDE

Christopher Lee Hackert
Louise Chee Lo
Kamalbhai K. Patel

MAGNA CUM LAUDE

Jennifer Dawn Adamson
Thaddeus C. George
Diane Dunbar Ilsley
Bradley Roger Kelemen
William Blunt Mitchell
John Ashley Rogers
Todd Keith Sellars
Vicki Lou Wrobel

AMPLA CUM LAUDE

Kelly Cajhuaringa
Kristen Julianne Cichon
Chandima S. Dehipitiya
Carla Jo Harper
Tai Anh Ho
John Bret Hood
Steven Marc Lovitt
Wei Ou
Frank Martin Pennebaker
David Taylor Reichenbach
Darren L. Williams

CUM LAUDE

James Daryl Batteas
Caleb Chen
Russell A. Chorush
Christopher Mark Dymond
Ediz Ibrahim Gurpinar
Richard Teson Hung
Jonathan Robert Klocek
Clayton John Nix
Michael Paul Songy
Francis Itsuo Tsai
Makoto Wagima
Laurie Jean Waller

NATURAL SCIENCES COUNCIL COLLEGE SCHOLARS

DISTINGUISHED HONOR STUDENTS

Grace Tingcol Hu
Richard Teson Hung
Ngoc Thibich Le
David Menassah Raizen
Albert Andrew Yen

SPECIAL DEPARTMENTAL HONORS

Timothy D. Machajewski
Jason Ben Shear
Mark Robert Spaller

BIOCHEMISTRY

Laura Katherine Boyar
Catherine Mai Yu Chen
Jackson Chia Chen
Shaena H.-C. Choi
Patrick Charles Dillawn

UNDERGRADUATE DEGREES AWARDED

FALL

B.S. CHEMISTRY

Alexander Bowman Boffa - High Honors
Philip Anthony Gorlin
Timothy D. Machajewski - Highest Honors
Arnold Steward Peters
Miguel Rosingana
Taturo Udagawa

B.A. CHEMISTRY

Ryan Lloyd Lindner

B.A. BIOCHEMISTRY

Sophia Sze-May Chiu
Henry Fulton Garcia
Shalini T. Reddy - High Honors
Richard C. Trevino, II

SPRING

B.S. CHEMISTRY

Richard Irwin Carroll
Daniel Ray Dewberry
David Harold Dodd
Gary Paul Gilmer
Robert MacDonald Hands
Walter Gerhard Hubert - Honors
Darren Louis Marsch
Neil Deloy McMurdie - High Honors
Daniel Scott Price
Lori Dianne Rodriguez
Daniel Adam Rutman
Jason Ben Shear' - Highest Honors
Mark Robert Spaller - Honors
Catherine Ann Van Winkle

B.A. CHEMISTRY

Marious C. Peleties
John Ashley Rogers - Highest Honors

B.A. BIOCHEMISTRY

Young Hwa Choi
Richard William Crockett
Patrick Charles Dillawn - Honors
Anthony Lopez Estrera
Julia Carol Fleckenstein
Roy Anthony Friddell
William Robert Hobbs - Highest Honors
Grace Tingcol Hu - Highest Honors
Diane Dunbar Ilsley
Evert Johan M. Kroon
Nathan David Lakey
Jacqi Ilene Lambert
Sue Feng Liu
David Menassah Raizen - Highest Honors
Daniel Morgan Roberts
Devani D. Sarathkumara
Louis Edward Seade
Javaid Ahmed Shad - Honors
Rowena Manaloto Sioco
Monique Ann Spillman - High Honors
Chun Kai Wang - High Honors
Richard H. Wiggins, III

Vista Chemical Company-Regents Memorial Lectureship in Organic Chemistry

The inaugural series of lectures funded from the income of an endowment provided by the Vista Chemical Company, an anonymous donor, and the Board of Regents will occur in Spring, 1990. Prof. E.C. "Ted" Taylor (Princeton University) will be the distinguished lecturer and will present three lectures during the period of May 9-11.

The first lecture of the series, tentatively scheduled for Wednesday evening, May 9, will be preceded by an historical summary of the evolution of organic chemistry here at UT-Austin. This should be a most informative presentation and surely will be of interest to faculty, students, and alumni of the department.

Although we are still in the planning stages for this event, we tentatively plan to have a formal tour of the Vista's new research and development facility here in Austin. That will probably be followed by a Texas-style barbecue and the evening's activities. We hope that many of the ex-students of faculty who were important to the early development of organic chemistry here, *e.g.*, J.R. Bailey, H.R. Henze, and H.L Lochte, as well as those associated with more recent faculty such as Phil Bailey, M.J.S. Dewar, Lewis Hatch, Rolly Pettit, and Roy Roberts, will be able to attend some or all of this inaugural series of lectures. Prof. Nathan Bauld has agreed to organize the festivities, and will be mailing out materials with specific details early in 1990. Should you be interested in participating in the activities but have not received our mailing by the end of February, please contact Nate by letter or by telephone [(512) 471-3017.

Mark your calendars now for a visit to Austin in early May!

From the desk of the Undergraduate Adviser

The job of undergraduate adviser is being passed from D.M. Ziegler to J.L. Sessler as of the fall of 1989. This column is written from the perspective of D.M. Ziegler. I want to wish Professor Sessler best wishes in his advising of the undergraduates. I know he will find it a rewarding experience.

The past year was very exciting for the undergraduates at the chemistry department. The department sponsored the first annual "Career Day" in April. All area high school science teachers were invited to bring their students to attend an exhibition of the various chemistry labs, NMR, Mass Spec, glassblowing, computer lab, x-ray, chemistry library, and the finale was a chemistry circus. The feedback from the teachers and students was very positive and we plan to continue the event each year in February. The Career Day was held to expose high school students to the university in an informal setting, and encourage students to major in chemistry. The chemistry department scholarship recipients acted as guides for the high school students to the various exhibits.

In May, the department honored the brightest undergraduates at an Honors Day ceremony. The students were given certificates with the name of the award on it. The names of the honored students are listed in the section, "Undergraduate Awards."

LESTER J. REED HONORED

The Clayton Foundation for Research and the New York Academy of Sciences co-sponsored a conference, held in Austin on November 16-18, 1988, honoring Professor Lester J. Reed. The conference was entitled, "α-Keto Acid Dehydrogenase Complexes: Organization, Regulation, and Biomedical Aspects." Participants in the conference presented the latest information on gene structures, assembly, function, and regulation of the components of these complexes, as well as information on metabolite, nutritional, and hormonal control of these enzyme systems in mitochondria and intact tissues.

The conference brought together enzymologists, molecular biologists and clinical investigators for the first time, for an in-depth review of the α-keto acid dehydrogenase complexes.

Professor Reed holds an Ashbel Smith professorship and is the Director of the Clayton Foundation Biochemical Institute. He is a member of the National Academy of Sciences. His research pioneered the study of α-keto acid dehydrogenase complexes.

CHEMISTRY LIBRARY

Increased enrollment in chemistry courses had a significant impact on the Mallet Chemistry Library this past year. On many days, a seat was hard to find, and use of books and journals increased 25% over last year. Over 700 computer searches, principally on the Chemical Abstracts database, were conducted in the Library. A program of expedited retrieval of articles from journals that the Library does not own made even obscure materials available on demand.

A major study of the Library's serial collection was completed, and the Librarian presented the results at the Association of College and Research Libraries national conference in April. While Mallet Library has a good core collection of journals and serials, there are major gaps that need filling.

In recent years, the rising cost of chemistry materials has far outpaced the library's budget. Chemistry materials have traditionally been among the most expensive of all library materials. Today the average price of a new chemistry book is $100. And journals, the heart of the chemistry library, have become exceedingly expenseive. Subscriptions to key titles like *Surface Science* and *Journal of Chromatography* have risen to over $3,600 per year.

In addition to state appropriated funds, new sources of support are required. As the Chemistry Department strives to increase its standing among academic chemistry departments, the Mallet Library, too, must strive to keep pace with the Department and its information needs. The continued growth of the A.E. Skinner Endowment is essential for the Mallet Library to develop into a first-rate chemistry library.

Christine Johnston
Librarian

STUDENT SCIENCE TRAINING PROGRAM UNITES KIDS AND CHEMISTRY

The summer of 1989 marked the sixth annual Student Science Training Program (SSTP). The SSTP is a summer research program which allows top-ranked high school students with an interest in chemistry and related sciences to participate in hands-on laboratory work.

Sponsored by The Robert A. Welch Foundation, the program was held at The University of Texas at Austin and The University of Houston from June 11 through July 7. Since 1984 the program, under the supervision of Dr. J.J. Lagowski, professor of chemistry at The University of Texas at Austin, has grown from 13 students to 40 students.

"Twenty students per venue is the maximum number of students allowable in order to maintain the present ideal situation," said Dr. Lagowski. "The intent of the program is to provide these exceptional students the type of hands-on experience they cannot get in the typical high school chemistry class. Therefore, the groups must remain relatively small in order to give each student that opportunity."

ACT2-WELCH CONFERENCE

The first Biennial ACT2-Welch Conference was held in Dallas, Texas from June 25-29, 1989. The conference is co-sponsored by The Robert A. Welch Foundation, under Professor J.J. Lagowski's supervision, and the Association of Chemistry Teachers of Texas. Over 100 chemistry teachers from all levels were treated to superb lectures, workshops, contributed papers, and demonstrations.

There was plenty of "inspiring shop talk" throughout the conference as teachers from various parts of Texas met and shared ideas. Invited speakers were Professor Bassam Shakhashiri of the National Science Foundation, Professor John W. Hill of the University of Wisconsin/River Falls, Professor Henry Bent of the University of Pittsburgh, Professor J.J. Lagowski of The University of Texas, and Mr. Richard Hanschen, a businessman from Dallas.

FALL ENROLLMENT

The University of Texas at Austin has 50,245 students this fall. That figure represents only a 0.3 percent increase (or 138 students) over last fall's total of 50,107, it gives UT Austin its largest enrollment in history.

An analysis of the 1989 fall figures shows that:

* The student body has 38,120 undergraduates, 10,537 graduate students and 1,588 law students. Of those 23,145 are females and 27,100 are males.

* The number of students in various ethnic groups 36,667 white, 1,866 black, 5,150 Hispanic, 2,887 Asian American, 98 American Indian, and 3,577 foreign students.

* Texas residents make up 82 percent of total enrollment, while 10.9 percent are from other states in the U.S. and 7.1 percent are foreign students.

* Colleges with the largest undergraduate enrollment are: liberal arts, 10,437; business administration, 8,736; natural sciences, 5,777; and engineering, 4,625.

In the chemistry department there are 234 biochemistry, 168 bachelor of science in chemistry, and 49 bachelor of arts in chemistry majors for fall 1989.

IN MEMORIAM

With this issue of the Newsletter, we are providing the list of all known deceased alumni . In subsequent issues we will provide the names that are brought to our attention for the previous year.

William Porter Akin, M.A. 1927
Karla Kay Anderegg, B.S. 1971
Bradshaw Frederick Armendt, Ph.D. 1932

James Robinson Bailey, B.A. 1891
Lowell Malcolm Baker, B.S. 1969
John M. Barcus, B.S. 1935, M.A. 1935
Paul Willging Barker, M.A. 1933
L.D. Barrick, M.A. 1933, Ph.D. 1936
Ruth Barton, B.A. 1927, M.A. 1929
Shamsher Singh Bath, Ph.D. 1956
Charles Mabry Blair, Ph.D. 1933
Thomas Jackson Bond, Ph.D. 1950
Gene Buchanan Bradley, B.S. 1950
Margaret Frances Brewer, Ph.D. 1939
George C. Brooks, Non-degree 1951
Denton Jacobs Brown, M.A. 1912
William Duane Brown, Ph.D. 1955
Oliver Norman Bruck, B.A. 1931
Theophil Frederic Buehrer, M.A. 1918
Edward Bunnenberg, Jr., Ph.D. 1960

Don B. Carroll, B.S. 1956
Harry L. Cates, Jr., M.A. 1948
Yun Ger Chang, Ph.D., 1961
Vernon H. Cheldelin, Ph.D. 1941
Thomas Stirling Claiborne, M.A. 1970
William Josiah Clegg, Ph.D. 1947
Henry V. Cortez, Ph.D. 1964
Francis Marion Crawford, M.A. 1920
Loy Benjamin Cross, Ph.D. 1938

Mrs. Cora Mae Dabney, M.A. 1926
Wilson T. Davidson, B.S.1891
Jim Clayton De Land, B.S. 1954
Robert Hill De Wolfe, B.S. Ph.D. 1954
George Michael Decherd, Jr., M.A. 1926
Henry Benjamin Decherd, M.A. 1897
Bobbye Ruth Delafield, B.S. 1945
Karl Bernhard Dornberger, B.A. 1922
Arthur Andrew Draeger, Ph.D. 1935

Charles H. Duesing, II, B.A. 1957
Sebastian Anthony Durban, M.A. 1926
Clifton H. Durham, Jr., B.S. 1970

Robert Edward Eakin, Ph.D. 1942
Marvin B. Edwards, Ph.D. 1954

Clarence Ben Ferguson, B.S. 1965
Ira Floyd Ferguson, M.A. 1937
Joe L. Franklin, Jr., Ph.D. 1934
William B. Franklin, Ph.D. 1934
Don Mitchell Fregia, B.S. 1963

Glenn Robert Gaddis, B.S. 1974
Fred McKee Garland, Ph.D. 1939
Richard A. Glenn, Ph.D. 1941
Bert Sorelle Gorton, Ph.D. 1957
Mary Steussy Gray, B.S. 1941
La Thaggar Green, M.A. 1932
Raymond Leslie Gregory, M.A. 1923
W.H. Gronde, M.A. 1935

Henry Emmett Hall, M.A. 1940
David G. Hannan, B.S. 1961
Henry Harvey Harkins, M.A. 1923
Gladys Teresa Henninger, M.A. 1925
Robert Lee Hull, Ph.D. 1956
Ray Merle Hurd, Ph.D. 1954

William Louis Jackson, B.S. 1973
Adoniram Judson James, B.S. 1890
Cecil E.P. Jeffreys, M.A. 1927
Jerry Lloyd Johnson, M.A. 1958
Marion Johnson, B.S. 1953
John Leonard Jones, B.S. 1972
Rufus Vernon Jones, Ph.D. 1937
Ardon B. Judd, Non-degree 1909
Norman Lee Justus, Ph.D. 1955

Charles W. Keenan, Ph.D. 1949
Joe Taylor Kelly, M.A. 1948
Carroll L. Key, Ph.D. 1937
Harry A. Kornberg, Ph.D. 1942
William John Krodel, M.A. 1947
Norman John Krause, M.A. 1967
Paul F. Kruse, Jr., Ph.D. 1951
Gregory L. Kuykendall, B.S. 1970

Robert Woodfin Lackey, Ph.D. 1934
Mrs. Charles B. Laramore, B.A. 1944
Joe F. Lemons, Ph.D. 1942
L.W. Lepard, Jr., B.S. 1957
Mrs. Porter Lou Calhoun Little, B.A. 1923
Loyal Edwin Loveless, Jr., Ph.D. 1951

John Edward Mahler, Ph.D. 1963
Rapheal Matson, M.A. 1940
Hugh McCain, Jr., B.A. 1944
William Edward McDaniel, B.A. 1982
Douglas M. McEachern, B.S. 1956
Robert L. McKee, M.A. 1943
Wilmon William Meinke, Ph.D. 1949
Robert G. Mers, Ph.D. 1940
Albert Samuel Meyer, Jr., Ph.D. 1953
Norman Hall Moore, M.A. 1916
Mrs. Joseph Chandler Morris, M.A. 1928
John B. Moyers, M.S. 1938

Gene Nowlin, Ph.D. 1949
Leslie Grey Nunn, Jr., Ph.D. 1943

Felix M. Paquin, Jr., M.A. 1932
Ivy M. Parker, Ph.D. 1935
Fay Focht Pearce, M.A. 1951
Joseph E. Pennington, Ph.D. 1972
Tom S. Perrin, Ph.D. 1933
Jon Bailey Phelps, Jr., M.S. 1938
Houson Wallace Pratt, B.A. 1948

Walter A. Quebedeaux, Jr., Ph.D. 1940

Ronald Bert Reinarz, Ph.D. 1973
Jack C. Rentz, Jr., B.A. 1943
Everett W. Riddle, Jr., B.S. 1949
Lyman A. Ripperton, Ph.D. 1954
Donald Gene Rosenbaum, B.S. 1967
Edward Wells Rugeley, M.A. 1921

Cora May Savoy, M.A. 1942
Reinhardt Schuhmann, M.A. 1921
Walter Adolph Schulze, M.A. 1925
Isabel Kathleen Simmons, M.A. 1934
Mrs. Walter E. Sjoberg, Jr., B.S. 1947
Wilfred Aubrey Skinner, Ph.D. 1952
William Mackey Slagle, M.A. 1928
Charles William Smart, Ph.D. 1950
Donald Maurice Sowards, Ph.D. 1953
Mrs. Fred D. Spencer, Jr., B.A. 1940
William Nicholas Steshko, Sr., B.S. 1950
Dale Keith Swaim, B.S. 1960

Robert Seth Taylor, M.A. 1920
Willard Curtis Thompson, Ph.D. 1930
Theodore Boyce Tucker, M.A. 1911

Gertrude Van Zandt, Ph.D. 1950
Kenneth Wayne Vernon, B.S. 1959

Mrs. Herman Daniel Weisser, M.A. 1924
Louis E. Weltman, B.A. 1945
Francis Allan White, B.A. 1942
Mrs. Weldon C. White, M.A. 1933
Sam G. Whitten, B.A. 1950
Robert C. Wilson, Ph.D. 1941
Chavis Matthews Womack, Jr. Ph.D. 1961
Mical Kent Wood, Ph.D. 1969
Goodall Harrison Wooten, M.A. 1892

ALUMNI NEWS

Information for this column is obtained from the "Keep In Touch" forms that are enclosed with the Newsletter. We would like to hear from everyone.

1922

Kyle Ward, B.A. Organic Chemistry, B.S. (Chemical Engineering 1923 with E.P. Schoch). Retired from the Institute of Paper Chemistry and lives in Appleton, Wisconsin.

1941

George Wash, Ph.D. Organic Chemistry (H.L. Lochte). Worked at Exxon from 1941-45 as a research chemist. Phillips Petroleum from 1941-76, retired at age 62 by my own choice. While at Phillips I worked in chemical products development from 1946-48,; Fertilizer development and marketing from 1948-55; Director of Plastic Sales and Vice-President from 1955-63; Executive Vice-President of joint venture in plastics and fibers from 1963-66; Director chemicals 1966-72; Corporate planning and budgeting 1972-76. Retired from the Phillips Petroleum Company and lives in Marble Falls, Texas.

1942

Samuel A. Corson, Ph.D. Biochemistry. Presently an Emeritus Professor of Psychiatry (Psychobiology), College of Medicine; Professor of Biophysics, College of Biological Sciences; member of Graduate Faculty, Center for Slavic and East European Studies; member of Faculty and Advisory Committee, Biomedical Center; Professor of Educational Theory and Practice, College of Education, at The Ohio State University in Columbus Ohio.

1946

Jett C. Arthur, Jr., M.A. Physical Chemistry (W.A. Felsing). Awarded the 1988 Southern Chemist Gold Medal. Sponsored by the American Chemical Society Memphis Section, the award consists of a medal and a stipend. Mr. Jett is formerly with the Department of Agriculture and now a private consultant, is being recognized for his contributions in cellulose chemistry, oilseed protein products, enzymes, food processing, and the utilization of nuclear radiation. Mr. Jett lives in Metarie, Louisiana.

Katherine L. Paterson, D.O., B.S. Chemistry. Partially retired and working out of home office in Cedar Park, Texas. Member AOA, TOMA, American Academy of Osteopathic Medicine, Cranial Academy, American College of General Practice, Texas Society of General Practice, Texas Society of Academy of Osteopathic Medicine.

1947

Porter L. Pickard, Ph.D. Organic Chemistry. Retired in June 1987 from Union Camp Corporation, Research & Development. Enjoying good health, sell a house now and then, travel some, and work a lot. Dr. Pickard lives in Pennington, New Jersey.

1948

James F. Hogg, Ph.D. Biochemistry (Roger J. Williams). December 11 was my 70th birthday; therefore I shall retire from Queens College. However, I have

arranged to work at NIH with Marshall Nirenberg (my student) beginning February 1, 1989. You are doing a great job with the Newsletter, keep it flowing. Dr. Hogg lives in Glen Cove, New York.

1949

Jerry D. Bartos, B.S. Chemistry (Gilbert Ayres). Retired May 1, 1986 from Texas Eastman Company. Mr. Bartos lives in Longview, Texas.

1952

Fred M. Reiter, M.S.Biochemistry (Lester Reed). Am enjoying retirement but still drop in and visit to "talk shop" with the group at DuPont. A Texas Exes' group in Philadelphia is active and I have met with them occasionally. Good layout and coverage in the Newsletter. Mr. Reiter lives in Chadds Ford, Pennsylvania.

1953

C. Gordon Skinner, Ph.D. Organic (H.R. Henze). Also worked with William Shive for about 12 years and Joanne Ravel. Retired from full-time teaching in September from the University of North Texas and finding life even more busy than ever before. Lill and I are producing lots of sawdust in our woodworking efforts. Some of the things we sell - most of it is given away, e.g. toys at Xmas. I enjoy the Newsletter very much even though I know fewer and fewer of the names. Dr. Skinner lives in Denton, Texas.

1956

Vinton A. Hoyle, Jr., Ph.D. Organic Chemistry (H.R. Henze). I retired after 30 years with Tennessee Eastman Company in May 1986 and now am enjoying the mountains of Tennessee and doing a little consulting. Keep the Newsletter coming. Dr. Hoyle lives in Kingsport, Tennessee.

1967

Robert O. Bost, M.A. Organic Chemistry (Rowland Pettit). In April 1988 I was a member of a delegation to visit five cities in the Soviet Union. I was guest editor for a special issue of the *Journal of Analytical Toxicology*. I have been elected vice-president of the Society of Forensic Toxicologists for 1989. Dr. Bost lives in Carrollton, Texas.

Shi-Yeng Ho, Ph.D. Physical Chemistry (W.A. Noyes, Jr.). Professor and Director of Tsu-Chiang Research Institute. General secretary of the president's office of National Tsing Hwa University in Taiwan.

1969

Catherine L. Stevens, B.S. Chemistry. Professional artist, took third price in Graphics for 'In Spirit' in regional Pennsylvania show. My husband, Stanley Edward Stevens, Jr. (Ph.D. Botany '71), accepted Chair of Excellence in Molecular Biology at Memphis State in January 1989. Dr. Stevens lives in Memphis, Tennessee.

1971

Mickey A. Dammann, B.S. Chemistry. I work as a paint chemist doing product development and evaluation on coatings used on Texas bridges and roads. I provide field service to our various districts on coating application as well as quality assurance

during manufacture of the coatings. Mr. Dammann lives in Austin, Texas.

1972

Lambert Havelka, B.S. Chemistry. I joined the Soap and Cosmetics industry for eight years (Dr. Fonken would be proud). A career change made me a process engineer for Morton-Thiokol, Inc. Contracting Operator of Longhorn Army Ammunition Plant, Marshall, Texas. Since then, I have progressed to Manufacturing Engineering Supervisor and am currently a Senior Program Manager in charge of Infra Red Decoy Flare Programs. On the personal side, Sue and I have been married 17 years and we have two sons, Justin (15 years) and James (10 years). We live in the Piney Woods of East Texas in Marshall. Some of you may remember my dad, Henry Havelka, the bald janitor on the second floor of the Experimental Science Building, Biochemistry Department and Microbiology labs. "Old Henry" is doing fine after 15 years of retirement. Age is starting to take its toll but he still retains fond memories of his days with Dr. Shive and others. Keep the Newsletter coming!

Hollis L. Horner, B.S. Chemistry. I have recently associated myself with National Environmental Testing, in Austin, Texas, as manager of Client Services. NET has nine analytical laboratories across the nation including one in Austin which provide a full range of environmental analyses.

Douglas B. Olson, Ph.D. Physical Chemistry (W.C. Gardiner). Group leader for Energetic Materials, Center for Explosives Technology Research, New Mexico Tech, Socorro, New Mexico.

Jerry L. Parr, B.S. Chemistry. I was recently promoted to Division Scientist in a 200 member environmental testing laboratory. Last year I was the primary author of a report to the U.S. Congress concerning the adequacy of analytical methods to meet the Nation's testing needs. I am currently living in the mountains west of Denver and am enjoying the winter sports. I enjoy reading the Newsletter.

W. Terry Rawlins, B.S. Physical Chemistry. Ph.D. University of Pittsburgh 1977; employed at Physical Sciences, Inc. since that time; government contract research on chemical kinetics, atmospheric/combustion chemistry; now manager of Chemical Sciences. Dr. Rawlins lives in Reading, Massachusetts.

1974

John D. Butler, B.S. Inorganic Chemistry. Commander, U.S. Navy. Currently serving as Chief Engineer, AN/BSY-1 Advanced Submarine Integrated Combat System, Naval Sea Systems Command (PMS-417), Washington, D.C. Awarded the Navy Achievement Medal for professional achievement in the superior performance of his duties, "displaying exceptional technical knowledge and skill during the demanding installation and test of the first AN/SBY-1(V) Advanced Submarine Combat System in USS San Juan (SSN-751".

1975

Richard Fuentes, Ph.D. Inorganic Chemistry (L.O. Morgan). Recently promoted to Research Manager, Polymers Research and Development, Louisiana Applied Science and Technology Lab, Dow Chemical Company, Plaquemine, Louisiana. Dr. Fuentes is recognized for his technology development involving the triblocks-styrene block copolymer project which led to a joint venture with Exxon

Chemicals Americas. In 1983, he developed a high efficiency supported Ziegler-Natta catalyst for high density polyethylene which is currently in use for all Dow HDPE plants worldwide. Dr. Fuentes and his family reside in Baton Rouge, Louisiana.

Michael C. Pirrung, B.A. Chemistry. Appointed Associate Professor of Chemistry, Duke University, Durham, North Carolina.

Marian T. Stankovich, Ph.D. Chemistry (A.J. Bard). Associated with the Department of Chemistry at the University of Minnesota in Minneapolis, Minnesota.

1976

Bruce A. Hathaway, B.S. Organic Chemistry (P.L. Stotter). Granted tenure and promoted to Associate Professor in the Chemistry Department at Southeast Missouri State University in spring 1988. Dr. Hathaway lives in Cape Girardeau, Missouri.

Robert R. Holloway, Ph.D. Biochemistry (Cox, Petr Munk). I have become rather involved as a volunteer for the American Diabetes Association. I'm the chairman of the bike ride promotion for the San Mateo County Chapter (this is the peninsula just below San Francisco). In this enterprise we usually raise a major proportion of the operating funds for the ADA.

Diane A. Wiginton, M.A. Biochemistry (D.M. Ziegler). Associated with the University of Cincinnati in Cincinnati, Ohio.

1977

James S. Bogard, Ph.D. Physical Chemistry (D.A. Kohl). New book released by Pergamon Press November 1988. Problems and Solutions in Applied Radiation Protection, J.E. Turner, J.S. Bogard, J.B. Hunt, and T.A. Rhea. Dr. Bogard lives in Oak Ridge, Tennessee.

1978

Rick Armstrong, B.A. Inorganic Chemistry (R.J. Lagow). Completed M.S. in chemistry at University of Texas at El Paso in 1982 with Dr. Bill Herndon. Taught chemistry and physics for four years at First Baptist Academy, Dallas while completing a Master of Theology degree at Dallas Theological Seminary (graduated May, 1988). Have completed all the coursework for a Masters in Physics at the Institute for Creation Research. Married Stacy Lee Richards, May 1983 and have three sons Andrew(3), Daniel (2), and David (6 months), expecting #4 on 9-18-88! Am presently teaching physical science, chemistry, physics, and Bible at Tri-City Christian High School. Mr. Armstrong lives in Escondido, California.

1979

Ismail Al-Madany, B.S. Organic Chemistry. Promotion to Associate Professor in pollution control and waste management at Arabian Gulf University in Bahrain.

Tejraj M. Aminabhavi, Ph.D. Physical Chemistry (Petr Munk). I am presently promoted to the rank of Professorship at Karnatak University in Dharwad, India. I am actively pursuing research in polymer chemistry. The size of my group if five. I have a devoted family. My wife, Devika, works at home. My two daughters Bharati (9 years) and Hema (5 years) are studying in school. Dr. Aminabhavi lives in Dharwad, India.

Thomas H. Arnold, Ph.D. Inorganic Chemistry. Presently in the United States Air Force at Tinker, AFB in Oklahoma City, Oklahoma.

Marsha Multer Arvedson, Ph.D. Physical Chemistry (D.A. Kohl). Recently promoted to Staff Chemist in Performance Polymers Group of Exxon Chemical Company - Polymers. Located in Houston, Texas for the past two years. Husband, Steve, (B.A. 1976) is a mutual fund accountant.

1980

Kenneth E. Butler, B.A. Analytical Chemistry (B.S. Chemical Engineering 1986). Currently working as a Research Assistant, at the University of Texas Medical School in Houston, Texas, studying contrast agents for ultrasound.

William D. Clayton, B.A. Biochemistry. Currently an Anesthesiologist in Colorado Springs, Colorado.

Christine L. Sledge, M.A. Physical Chemistry. Currently working at Caap Co., Inc. in Milford, Connecticut. Ms. Sledge lives in West Haven, Connecticut.

1981

Sun-Chueh Kao, Ph.D. Organic Chemistry (Rowland Pettit). Currently working at Union Carbide Corporation in Bound Brook, New Jersey. Dr. Kao lives in Piscataway, New Jersey.

John J. Osterhout, Ph.D. Biochemistry (Joanne Ravel). I have just taken a position at the Rowland Institute for Science in Cambridge Massachusetts. I am setting up a laboratory to study the structure of peptides in aqueous solution by two-dimensional nuclear magnetic resonance. Previous to my move to the east, I studied protein folding at Stanford, and magnetic resonance techniques at the Research Institute of Scripps Clinic. In May 1987, I married Anne Evans. Anne is a veterinary dermatologist, and on the faculty of Tufts University School of Veterinary Medicine. Dr. Osterhout lives in Natick, Massachusetts.

Rodney Ruoff, B.S. Chemistry. After working with H.S. Gutowsky at Illinois on the structure of van der Waals and hydrogen-bonded clusters, I went to West Germany with a Fulbright postdoctoral fellowship. Adjusting to the German language and culture has been a fun experience. I've had a chance to do some science here, specifically some treatment of relaxation processes in supersonic expansions and designing a better hot nozzle for continuous molecular beam expansions. I look forward to my return to the United States in September 1989 after an expected trip through Spain and Africa.

Kershi Wang, Ph.D. Organic Chemistry (James K. Whitesell). From 1981-85, worked in research and development in hypocholesterolemic agents with patents in the United States and Europe. Ten publications in *Syntheses*, regarding biochemical studies and preclinical trials of hypocholesterolemic agents that are currently under clinical trial in cooperation with American Cyanamid Pharmaceutical Company. From 1981-88, Doctor of Medicine from the University of Texas Medical Branch at Galveston, Texas. Currently in residency training at Georgetown University Hospital, Washington, D.C. My wife, Tsailie (Ph.D. 1985, UT School of Public Health) is a senior Biostatistician for the Federal Drug Administration in Maryland. Dr. Wang lives in Arlington, Virginia.

Darrell Wheeler, B.A. Biochemistry (worked part-time in William Shive's lab). After medical school in 1985, I completed a three year residency in

Pediatrics at the University of Texas at Houston. I am now a Neonatal Fellow at the University of Texas Medical School in Houston. Of interest, my father Dr. Edward N. Wheeler, is also a graduate of the Department of Chemistry.

1982

David G. Bybell, B.S. Chemistry (Karl Folkers). Currently working at Cray Research in Dallas, Texas. Mr. Bybell lives in Plano, Texas.

Frank S. Cho, B.A. 1982. Currently completing Pediatric residency at the University of Texas Medical Branch in Galveston, Texas, and interviewing for Neonatology research.

Richard K. Sterling, M.A. Biochemistry (William Shive). Received M.D. degree from Jefferson Medical College in Philadelphia, Pennsylvania. Currently a medical resident at The Medical College of Virginia in Richmond, Virginia.

1983

Karen Ajeck Carman, B.S. Organic Chemistry. I obtained my Ph.D. from Rice University in September 1987. I am currently working as a polymer research chemist at Tennessee Eastman Company. I was married in October 1988 and my husband and I currently live in east Tennessee. Thanks for listing me as "lost." I didn't realize I was. It's nice to be found again.

Michael L. Durci, B.A. Chemistry. Doing well currently as a resident in radiotherapy at M.D. Anderson. Denise, my wife, is currently pregnant and we're expecting a girl (if you can believe in ultrasound!) in late February, 1989. Please keep forwarding me the Newsletter. Dr. Durci lives in Houston, Texas.

Gary D. Rayson, Ph.D. Analytical Chemistry (James Holcombe). Assistant Professor of Chemistry at New Mexico State University, late July 1986 to present. Post-doctoral Research Associate, Indiana University, July 1983 - July 1986. Married Jenny Moorer on June 18, 1988 in Las Cruces. Jenny is an assistant catalog Librarian at New Mexico State University Library. The Newsletter is very informative and I enjoy getting it.

Steven J. Wittenberger, B.S. Organic Chemistry (Stephen Monti). Currently working at The University of Texas Southwestern Medical Center in Dallas, Texas.

1984

Daniel F. Persico, Ph.D. Inorganic Chemistry (R.J. Lagow). I married Jayne Seebach on April 9, 1988 in Wilmington, Delaware. Jayne also works for DuPont in sales. Most recent transfer was to Chicago, in July of 1987. Current responsibility is as accounts manager, in midwest, for sales of DuPont fluoropolymers (Teflon). Dr. Persico currently lives in Naperville, Illinois.

Charles H. Reynolds, Ph.D. Organic Chemistry (M.J.S. Dewar). Currently working for Rohm and Haas Company in Spring House Pennsylvania. Dr. Reynolds lives in Lansdale, Pennsylvania.

1985

Leah Johnston Hewitt, M.A. Analytical Chemistry (Woodruff). Transferred to Shell Deer Park manufacturing complex as a Process Chemist to the phenol acetone plant.

Married 10/22/88 to Richard W. Hewitt, Shell Oil Environmental Division Engineer. Ms. Hewitt lives in Houston, Texas.

Mary Katharine Holloway, Ph.D. Organic Chemistry (M.J.S. Dewar). Currently working in the Molecular Systems Department at Merck, Sharp, & Dohme Research Laboratories in West Point, Pennsylvania. Dr. Holloway lives in Lansdale, Pennsylvania.

Robert M. Newman, M.A. Inorganic Chemistry (L.O. Morgan). Transferred to polypropylene and also act as contact with catalyst supplier at Exxon in Bayton, Texas. Mr. Newman lives in League City, Texas..

1986

Denise E. Guinn, Ph.D. Organic Chemistry (Stephen Martin). Currently working at Abbott Laboratories in Abbott Park, Illinois. Dr. Guinn lives in Grayslake, Illinois.

C. Mark Seymour, Ph.D. Inorganic Chemistry. I've been in California for two years now and love it. Work at the IBM Corporation Almaden Research Center, has involved study of material related to laser printers. I have also had an opportunity to do some electrochemistry. My daughter Megan is now almost four years old and she thinks she's from California. I will have to bring her back to Austin to show her where she was born. Dr. Seymour lives in Morgan Hill, California.

1987

Maureen M. Girand, M.A. Physical Chemistry (J.M. White). Currently working at Lockheed Aerospace Systems Company in Burbank, California. Ms. Girand lives in Valencia, California.

Wen-Huey Lin, Ph.D. Inorganic Chemistry (Richard J. Lagow). Currently working at Technolube Products Company (Ultrasystems) in Irvine, California. Dr. Lin lives in Los Angeles, California.

Mark A. McCormick, M.A. Chemistry. Currently a Lieutenant in the United States Navy, assigned as the navigator on the USS James K. Polk (SSBN-645). Home base is Boynton Beach, Florida.

1988

William C. Copeland, Ph.D. Biochemistry (Jon Robertus). Currently working in the Department of Pathology at the Stanford University Medical School. Dr. Copeland lives in Palo Alto, California.

Denise M. Damek, B.S. Chemistry. Currently in medical school at the University of Texas Health Science Center in Houston, Texas. Ms. Damek lives in Dayton, Texas.

Michael C. Kerby, Ph.D. Inorganic Chemistry (E.P. Kyba). Enjoying a postdoctoral assignment with Professor K.C. Volhardt at Exxon Research and Engineering Company in Annandale, New Jersey. Current research areas include synthesis and reactivity of water soluble organometallic complexes; design of 1-D transition metal polymers and 2-D conducting sheets; organometallic complexes for coal liquefaction. Dr. Kerby lives in Annandale, New Jersey.

Wendy J. Pomerantz, B.A. Chemistry. Currently in medical school at the University of Texas Southwestern Medical School in Dallas, Texas. Ms. Pomerantz lives in Dallas, Texas.

Keep in Touch!

NAME:_____

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