Pitt Chemistry Reactions FROM THE CHAIRMAN'S DESK

hange is in the air. In Washington the elections in early November have led to wholesale change in the corridors of power. The effect of these changes on the research and education community remains to be seen; however, we are waiting nervously. Change has also been very evident in the Chemistry Department over the past few years. In July 1994 John Cooper stepped down after five remarkable years as Chair of the Department. John provided indefatigable leadership for the Chemistry program over a very uncertain period. He oversaw the hiring of nine new faculty during his tenure. He established a new X-ray crystallographic facility which is widely used by the inorganic and organic faculty. Also, John greatly improved infrastructure within the Department by hiring key new administrative personnel (including Rebecca Claycamp, the Assistant Chair) and by beginning transformation of the cavernous Ashe auditorium into an acoustically ideal teaching arena. John leaves the Department a much stronger place.

The most recently hired of the new faculty are Professor Tara Meyer from Berkeley and Professor Jumi Shin from Scripps Research Institute. Tara is an inorganic chemist with interests in organometallic mechanisms of polymerization and depolymerization. Her work offers some intriguing possibilities in designing polymers with inbuilt features of self-destruction that can be switched on by a metal catalyst. Jumi Shin, who will arrive in January 1995, has research interests at the interface of organic and biological chemistry. Her work will involve identifying and eventually designing novel peptides and proteins that interact sequence selectivity with DNA and RNA. These two young scientists bring not only new faces, but also a new breadth of research encompassing polymer and biological chemistry into the Department.

Other recently arrived new faces include Gilbert Walker and Pam Aker in the Physical Division, Adrian Michael and Pat Treado in the Analytical Division and Peter Wipf in the Organic Division. At the associate professor level, we have also hired Joe Grabowski, a leader in the strong commitment of the University administration to chemistry and an investment in the future of our research and teaching mission.

In both teaching and research the Department is thriving. In 1992, we were ranked as the fiftl largest producer of B.S. chemists in the country. This ranking slipped to 12th in 1993, not because our numbers changed significantly but because of changes in other departments. However, quantity in our teaching program has not come at the pric of quality. In recognition of their outstanding contributions to the teaching program George Bandik, David Pratt, and Peter Siska have all bee awarded the Chancellor's Distinguished Teachin Award. At present we have the largest standing population of graduate students, approximately 185, that we have had in many long years. These are students supported, in the main, from researc funds from industry and various government agencies. Our tally of external funding now stands at \$6 million per year.

Recent research within the Department is receiving a high level of external recognition. In the past year, Sandy Asher received the ACS Division of Analytical Chemistry Award in Spectrochemical Analysis, Paul Dowd was awarded an ACS Cope Scholar Award for, among other things, his brilliant work on the mechanism of Vitamin K, Peter Wipf was named as a Nation Science Foundation Presidential Faculty Fellow, one of only two chemists this year, and John Yat received the Medard W. Welch Award from the American Vacuum Society.

All of this activity is clearly having an effect In a recent ranking of research impact, based on citations per paper, the Department ranked 19th nationally. In a more informal ranking of publications in the prestigious Journal of the American Chemical Society the Department ranked 5th.

Overall, the Department with its new group of young faculty, with its strong instrumentation infrastructure and with its commitment to excellence in teaching is well-placed to weather the changes of the next few years. We are

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field of gas-phase reactivity and photoacoustic calorimetry, and David Beratan, a theoretician who has carried out groundbreaking work in elucidating mechanisms of electron transfer in proteins. These new appointments all represent a confident that our star will continue to rise.

Andrew D. Hamilton Professor and Chair

BACCALAUREATE BRAVOS 1993-1994

FALL 1993 STUDENT AWARDS

MESSER AWARD Chris Rigone SILVERMAN AWARD Diana Griffiths ANALYTICAL AWARD Lee Martin FRESHMAN AWARD Mariane Farrar Sindhu Mennon

SPRING 1994 STUDENT AWARDS

PHILLIPS MEDAL Chris Rigone MARY LOUISE THEODORE PRIZE Jen Hogan Casey Corwin LUBRIZOL SCHOLARSHIP Sean Richardson

SACP COLLEGE AWARD Diana Griffith AMERICAN INSTITUTE OF CHEMISTS AWARD Tom Mathie

Carl Rest

MERCK AWARD Kelly Bowman Natalie Ziolkowski

LORD SCHOLAR AWARD Kristin Kasputis Gary Knapick Heather Leppla Erin Wright

VALSPAR AWARD Brian Strazisar Cindy Mann-Kanny Jeff Niederst

BEGINNINGS.....

One has to begin somewhere, so in this first issue of Pitt Chemistry Reactions we are starting with a recap of the 1993-94 year. We hope to have two issues each year: one in the Fall

FALL 1993 **B. S. RECIPIENTS**

Dawn M. Bauer, B.S., Cum Laude Kevin Colizza, B.S., Cum Laude Gary C. Cseko, B.S., Cum Laude Camille M. Diges, B.S., Cum Laude Fred H. Ebert, Jr., B.S. Melissa L. Fulmer, B.S. Edward G. Goralski, B.S., CGS Wayne R. McVey, B.S.

David A. Ondesko, B.S.

Thomas J. Paradise, B.S. Mark D. Pinchok, B.S.

Joseph C. Robinson, B.S.

David J. Romano, B.S., CGS

John M. Wirant, B.S.

SPRING 1994 **B.S. RECIPIENTS**

Denise E. Aiello, B. S., Cum Laude Brian G. Bentz, B.S.

Kelly K. Bowman, B.S., Summa Cum Laude Jennifer L. Cherpes, B.S., Cum Laude

Tonia L. Cieslo, B.S.

Marie Corbin, B.S.

Catharine A. Correll, B.S.

Casey A. Corwin, B.S., Magna Cum Laude

Dee N. Dao, B.S.

Sarah A. De Forest, B.S., Magna Cum Laude

Veronica L. DeRose, B.S.

Judy A. Facey, B.S.

Robert A. Ference, B.S., CGS

Amy S. Gaffin, B.S., Magna Cum Laude

James G. Graham, B.S., CGS

Rebecca A. Hegner, B.S.

Jeffrey W. Hermann, B.S.

Jennifer A. Hogan B.S. Summa Cum Laude

Lee B. Martin, B.S., Cum Laude

Thomas B. Mathie, B.S.

James L. Murphy, B.S., CGS

Michael D. Musick, B.S.

Jon V. Palmer, B.S.

Christina L. Peto, B.S.

Michael A. Pinchok, B.S., CGS

Keshava Rajagopal, B.S., Magna Cum La

Nicole L. Reiter, B.S., Magna Cum Laude

Christopher D. Rigone, B.S.,

Summa Cum Laude

Robert J. Rupp, B.S.

Helen Sile, B.S., Summa Cum Laude

Christopher G. Skutches, B.S.

Daniel J. Somma, B.S.

Rhonda L. Shaheen, B.S., CGS

Eric T. Stuck, B.S., CGS

Faith L. Tercek, B.S.

Cecilia Udekwu, B.S.

Jason M. Vanatta, B.S.

Edward A. Vinski, B.S., Magna Cum Lau

Jonathan H. Vitale, B.S., Cum Laude

Adam Waehner, B.S.

Christopher M. Weaver, B.S.

Elizabeth R. Weissman, B.S., Cum Laude

Diane R. Williams, B.S.

Melisa A. Winters, B.S.

Steven R. Wolfe, B.S.

Natalie A. Ziolkowski, B.S.,

Summa Cum Laude

SUMMER 1994 B. S. RECIPIENTS

Darryl L. Baynes, B.S.

Terri Lin Cowans, B.S., CGS

Kurt F. Davidson, B.S.

Matthew R. Dellinger, B.S.

term and one in the Spring Term. In future issues we will bring you up to date on current events...what's going on here at Pitt. But more importantly, we want to hear from you. Please take a moment to catch us up on what is happening to you. We have enclosed an information card with this mailing.

Anthony A. Hrivnak, B.S.

David R. Jones, B.S.

Marcey L. Kim, B.S., CGS

Guy J. Lozito, B.S., CGS

Ronald G. Mackley, Jr., B.S.

Kevin H. Mallon, B.S., CGS

Diana L. Griffiths, B.S., Summa Cum Laude Patrick J. Guyton, B.S. Richard R. LaMar, B.S., CGS Thomas J. Myslewiec, B.S., CGS Marie L. Sandrock, B.S., Magna Cum Laude Michele E. Vargo, B.S.

FACULTY

We will be keeping you abreast of faculty news and highlights...comings and goings. For this first issue, we have included a complete listing of the current faculty.

FACULTY ACCOLADES

Peter Wipf recently was named a
National Science Foundation Presidential
Faculty Fellow. This program annually
recognizes 30 young faculty members who
demonstrate excellence and promise both
in scientific or engineering research and
teaching. The NSF Award comes on the
heels of his receipt earlier this year of
both a Sloan Fellowship and the Ruzicka
Prize from Switzerland for his work in the
area of total synthesis and synthetic
methodology.

John Yates was honored in June with the Medard W. Welch Award from the American Vacuum Society for his development and use of modern measurement methods to provide insight into the behavior of chemisorbed species on metal and semi-conductor surfaces. This award coincided with his election as a Fellow of the Society.

CURRENT FACULTY

Pamela Aker, Assistant Professor; Ph.D., Carleton, 1986. Physical chemistry: atmospheric chemistry; application of nonlinear laser Raman spectroscopic David N. Beratan, Associate Professor; Ph.D., Caltech, 1985. Physical chemistry: theoretical bioinorganic chemistry and biochemistry; theoretical design of new materials for electronic and optical computing applications.

Richard A. Butera, Professor; Ph.D., Berkeley, 1963. Physical chemistry; thermodynamics of magnetic materials in high magnetic fields; low-temperature heat capacity measurements; chemical processes occurring at metal-metal, metal-semiconductor, and metal-compound interfaces; heat capacity studies of critical magnetic ordering.

Toby M. Chapman, Associate Professor; Ph.D., Polytechnic of Brooklyn, 1965. Organic chemistry: solid-phase synthesis, polyurethane chemistry, polymer surfactants, new polymers of uncommon architecture.

Rob D. Coalson, Associate Professor; Ph.D., Harvard, 1984. Physical chemistry: quantum theory of rate processes, optical spectroscopy, computational techniques for quantum dynamics; structure and energetics of macroions in solution; design of optical waveguides.

Theodore Cohen, *Professor*; *Ph.D.*, *USC*, 1955. Organic chemistry; new synthetic methods; organosulfur chemistry; natural product synthesis; synthetic uses of 3- and 4-member rings, carbenes, organolithium compounds, and sulfur-stabilized carbocations.

organic synthesis, synthesis via free-rad reactions.

Paul D. Dowd, Professor; Ph.D., Columbia, 1962. Organic chemistry: trimethylene-methane, diradicals, bioorganic chemistry, mechanism of act of vitamin B₁₂, mechanism of action of vitamin K.

Michael F. Golde, Associate Professor Ph.D., Cambridge, 1972. Physical chemistry: kinetic and spectroscopic studies of mechanisms of formation and removal of electronically excited atoms and small molecules, noble-gas halide excimers and similar species.

Joseph J. Grabowski, Associate Professor; Ph.D., Colorado, 1983. Physical-organic chemistry: mechanisms, reactive intermediates, dynamics and thermodynamics; gas and condensed phases; flowing afterglow, SIFT, Drift; photoacoustic calorimetry.

W. Keith Hall, Senior Visiting Professor, Ph.D., Pittsburgh, 1956. Physical chemistry; surface chemistry, chemisorption, catalysis.

Andrew D. Hamilton, Professor and Chair; Ph.D., Cambridge, 1979. Organ chemistry: organic synthesis applied to biological problems, artificial enzymes, host-guest chemistry, anticancer drug design.

David M. Hercules, Miles Professor; Ph.D., MIT, 1957. Analytical chemistry techniques to study gas-phase and gassurface chemical reactions.

Sanford Asher, Professor; Ph.D., Berkeley, 1977. Analytical chemistry: resonance Raman spectroscopy; biophysical chemistry, material science, development of techniques for probing macromolecules and surface-adsorbed species, porphyrins, heme proteins, colloid optical devices.

George Bandik, Lecturer; Ph.D., Pittsburgh, 1992. Undergraduate Program Instruction.

N. John Cooper, Professor; D.Phil., Oxford, 1976. Inorganic chemistry: synthetic and mechanistic inorganic and organometallic chemistry, heteroallene activation; anionic complexes containing metals in negative oxidation states, synthesis and reactivity of cationic alkylidene complexes of transition metals, organometallic photochemistry.

Dennis P. Curran, Professor; Ph.D., Rochester, 1979. Organic chemistry: natural products total synthesis and new synthetic methodology, heterocycles in analytical chemistgry of surfaces; electron spectroscopy (ESCA), Auger electron spectroscopy, secondary-ion mass spectrometry (SIMS), ion-scattering spectrometry (ISS), heterogeneous catalysis, surfaceharacterization and reactions, solid-statemass spectrometry.

Michael D. Hopkins, Associate Profess Ph.D., Caltech, 1986. Inorganic chemis try: electronically excited states of transition-metal complexes, linear-chain metal clusters, photochemistry and photophysics of multiple metal-metal an metal-ligand bonds.

Kenneth D. Jordan, Professor; Ph.D., MIT, 1974. Physical chemistry: theoretical studies of the electronic structure of molecules, electron transmission and electron energy loss spectroscopy, computer simulations, chemical reactions at semiconductor surfaces, long-range intramolecular interactions.

Tara Y. Meyer, Assistant Professor; Ph.D., Iowa, 1991. Inorganic chemistry: organometallic chemistry, polymer chemistry, application of transition metal catalysis to polymer synthesis; inorganic polymers; catalytic depolymerization; polymers with functionalized backbones.

Adrian C. Michael, Assistant Professor; Ph.D., Emory, 1987. Analytical chemistry: in vivo voltammetry, voltammetry in supercritical fluids, voltammetry using microelectrodes, enzyme voltammetry.

David W. Pratt, Professor; Ph.D., Berkeley, 1967. Physical chemistry: molecular structure and dynamics, as revealed by high-resolution laser and magnetic resonance spectroscopy, in the gas phase and in the condensed phase.

Paul Rasmussen, Lecturer; Ph.D., McMaster, 1969. Undergraduate Analytical Chemistry Program Instruction.

Rex E. Shepherd, Associate Professor;

James Vaux, Senior Lecturer; Ph.D., Carnegie Mellon, 1967. Undergraduate Program Instruction.

David H. Waldeck, Associate Professor; Ph.D., Chicago, 1983. Physical chemistry: ultrafast spectroscopy as used to investigate the condensed phase, liquid-state dynamics, charge transfer events at the semiconductor-electrolyte interface.

Gilbert C. Walker, Assistant Professor; Ph.D, Minnesota, 1991. Physical chemistry: structural dynamics of biological and model systems observed using time-resolved, including femtosecond, infrared spectroscopy; protein self-assembly and catalytic binding; charge transfer and vibrational relaxation.

Garry Warnock, Visiting Assistant Professor; Ph.D., Minnesota, 1985. Undergraduate General Chemistry Program Instruction.

Stephen G. Weber, Professor; Ph.D., McGill, 1979. Bioanalytical chemistry: separation and detection of peptides; sensors and smart materials; control over binding reactions using light and electrochemistry.

Craig S. Wilcox, Professor; Ph.D., Caltech, 1979. Bioorganic chemistry:

NEW FACES

Tara Y. Meyer, Assistant Professor, BA, Grinnell College, 1986; Ph.D., University of Iowa, 1991; Postdoctoral Associate, University of Iowa, 1991-92; Postdoctoral Associate, Lawrence Berkeley Laboratories and the University of California Berkeley, 1992-94. Professor Meyer joined the Department in September 1994.

We are interested in the use of transition metal catalysts to address specific problems relating to the synthesis and disposal of certain polymers. One of our efforts is in the polymerization of inorganic monomers using transition metal catalysts. Although successful metal catalyst systems have been developed for the polymerization of hydrocarbons, in many cases these systems have exhibited a low tolerance for functionality We are interested not only in preparing catalysts which will be more tolerant, but also in designing catalysts which can be used for the polymerization of inorganic monomers. In so doing, the substantial benefits of living-chain-growth polymerizations, which have been observed in organic systems, can be obtained. We are interested in using "living" systems to prepare block copolymers, comprising inorganic (phosphazenes, metal carbenes)

chemistry: reaction mechanisms and properties of biochemically related transition-metal complexes, electron transfer reactions, catalysis mechanisms.

Peter E. Siska, Professor; Ph.D., Harvard, 1970. Physical chemistry: crossed molecular beam studies of intermolecular forces and chemical reaction dynamics.

Darel K. Straub, Associate Professor; Ph.D., Illinois, 1961. Inorganic chemistry; iron-sulfur complexes, Mössbauer spectroscopy.

Patrick J. Treado, Assistant Professor; Ph.D., Michigan, 1990. Analytical chemistry: chemical imaging of heterogenous materials using Raman, nearinfrared, and fluorescence spectroscopies. stereoselective receptors and molecular aggregates; artificial enzymes based on binding and catalysis by functional group arrays; chemistry of ion pairs; new synthetic reactions.

Peter Wipf, Assistant Professor; Ph.D., Zurich, 1987. Organic chemistry: synthesis and reactivity of bioactive molecules, peptidomimetics, synthesis of reactive functionalities.

John T. Yates Jr., Mellon Chair Professor and Director, Surface Science Laboratory; Ph.D., MIT, 1960. Surface science: kinetics of surface processes; vibrational spectroscopy of surface species; electronic spectroscopy of surfaces; catalytic and surface chemistry on model clusters, oxides, and single crystals; semiconductor surfaces, scanning tunneling microscopy.

and organic segments (alkenes, alkanes, acrylates).

Our research is also directed toward developing metal catalysts that will selectively cleave polymers into small molecules which can be reused as monomers. A specific system which we are currently investigating is the cleavage of allyl aryl ethers using palladium complexes. Our longer term interests include the investigation of fundamental properties of these systems such as reaction rates, impurity tolerances, and the capacity for biphasic depolymerization of insoluble materials.

GRADUATE AWARDS 1993-1994

SAFFORD GRADUATE
TEACHING

MILES FELLOWS Melinda Alward

Greg Hale

Michael Roepel

Elizabeth Wise

KAUFMAN FELLOW Richard Armata

ARISTECH FELLOW Andrew Carr

LUBRIZOL FELLOW Hongyan Qi

The Department currently has two
National Science Foundation Graduate
Fellows: Jane Johnson and Melinda
Alward.

Claudia Cohen, "Progress Towards the Automation of Enzyme Immunoassay Technology", December 1993 (Weber). Quidel Corporation, San Diego, California.

Roberta Hartman, "Rotational Diffusion as a Probe of Solute/Solvent Interactions", December 1993 (Waldeck). Assistant Professor, LaRoche College, Pittsburgh, Pennsylvania.

Andy Held, "Rotationally Resolved Optical Spectroscopy. A Probe of the Properties of Hydrogen Bonds", December 1993 (Pratt). von Humboldt Fellow, University of Brussels, Belgium.

Yeonhee Kim, "Characterization of Solid Surfaces Using Mass Spectrometry and Xray Photoelectron Spectroscopy", December 1993 (Hercules). Postdoc, Argonne National Lab.

Christopher Miller "Some Synthetic

Chien-Hsing Lin, "Asymmetric Radical Cyclizations", April 1994 (Curran). Postdoc, University of Florida.

Michael Preigh, "Electrochemistry and Analytical Applications of Photochrom Spirooxazines and Spiropyrans", April 1994 (Weber). Pfizer Pharmaceutical, Groton, Connecticut.

Shunneng Sun, "Part 1. 1,2-Asymmet Induction of Acyclic a-Oxy Radicals."

Part 2. 1,2-Asymmetric Induction of Acyclic a-NHR Radicals Part 3. Syntheof Tricyclo[6.3.0.0^{2,6}]- undecanes by Tandem Radical Cyclizations", April 19 (Curran). Postdoc, Notre Dame University.

Hosung Yu, "Part 1. New Application Intramolecular 1,5-Hydrogen Transfer Reactions. Part 2. The Approach to the Steroid Ring System by Tandem Radical Cyclization", April 1994 (Curran).

Postdoc UCLA

MASTERS DEGREES 1993-1994

John Fredericks, December 1993 (Hamilton)

Evelyn Sheffel, December 1993 (Michael) Jamie Jamison, April 1994 (Cohen) Chi-Shun Wong, April 1994 (Yates) Birong Zhang, April 1994 (Cohen) Bradley Lewis, August 1994 (Hopkins) Janet Wang, August 1994 (Hercules) Cindy Weiser, August 1994 (Siska)

PH.D. DEGREES 1993-1994

Yoonmo Ahn, "Nucleophilic Addition of Organocerium(III) and Organomanganese(II) Reagents to Carbon-Oxygen Bonds Stereo-Selective Preparation of Spiroacetals", December 1993 (Cohen). Postdoc, University of California-Riverside.

cin istopher winer, some symmetre, Mechanistic, Structural and Biological Aspects of Oxazolines, Thiazolines, Axazoles and Thiazoles", December 1993 (Wipf). Wyeth Ayerst Pharmaceuticals, Princeton, New Jersey.

Monique Shumaker, "Essential Features of a Quantitative Model for Describing Carrier Relaxation at Semiconductor Interfaces", December 1993 (Waldeck). Assistant Professor, Carlow College, Pittsburgh, Pennsylvania.

Joseph Fiedor, "Determination of the Distribution of MO and W Oxidation States in Reduced MO, W/TiO, Catalysts by X-ray Photoelectron Spectroscopy with Factor Analysis and Curve Fitting", April 1994 (Hercules). Postdoc, Oak Ridge National Labs.

Katherine Kuhar, "The Synthesis and Characterization of Amphethilic Block Co-Polymers for Interfacial Studies", April 1994 (Chapman). Postdoc, University of North Carolina-Chapel Hill.

Wei Zhang, "Cyclobutanone-Based Fr Radical Ring Expansions and Annulations", April 1994 (Dowd). Research Assistant Professor, Universi of Pittsburgh.

Blaise Champagne, "High Resolution Optical Spectroscopy of Conjugated Molecules and Their van der Waals Complexes", August 1994 (Pratt).

Vincent Smentkowski, "Surface Scient Investigation of Tribologically Importa Systems - Iron and Diamond", August 1994 (Yates). Postdoc, University of Pittsburgh.

A PIECE OF THE PAST....

In the 119-year history of Chemistry at the University of Pittsburgh, the Department has had only nine Head and Chairmen. Can you name them

Answer found on back.

SUPPORT PERSONNEL

No brag (just fact), the Department of Chemistry has the good fortune of having excellent support personnel and staff, a number of whom have given long-service to the department. In fact, some staff are better known than our faculty. Our current support personnel include:

NMR Facility: Dr. Fu-Tyan Lin

Mass Spec Facility: Dr. Kasi Somayajula X-Ray Crystallography Facility: Dr. Steve Geib

Assistant Chair: Rebecca Claycamp

Instrument Manager: Greg Meisner Facilities Coordinator: Patty Hamza

Accounting: Evon Nigro, Cindy Funtal, Toni Joback, Laura Link.

Main Office: Barbara Hunt, Regina Kane, Fron Nagy Nancy Sattler (Graduate Secretary

ACS STUDENT AFFILIATES

The ACS Student Affiliates at the University of Pittsburgh is one of the most active groups in the entire U.S. The group has received national honors in each of the last three years. The group is particularly noted for its far-reaching outreach activities. In addition to all of the group activities, and members' ongoing involvement in the Pittsburgh Conference, the Affiliates are involved two major outreach efforts.

The Saturday Science Academy provides hands-on laboratory experiences for some 80 women and minority students from the greater Pittsburgh area. Again, affiliate members serve as one-on-one mentors during the two sessions held each year. The Saturday Science Academy is now in its seventh year.

The Honors Organic Program provides an intensive organic chemistry experience for 24

GIFTS TO THE DEPARTMENT

We will begin to acknowledge gifts to the Department through Pitt Chemistry Reactions. The Chemistry Department has four funds which received regular contributions. The Chemistry Annual Giving Fund provides support both for undergraduate student and graduate student efforts. The Frederick Kaufman Memorial Fund was established in honor of the former chairman to support the annual Kaufman Memorial Lecture Series. The Mary Louise Theodore Prize is given to two outstanding undergraduate chemists each year, honoring on the more active analytical chemists in the area. After years of service to the Pittsburgh chemist community, Mrs. Theodore died in 1992. The Pam Basu Memorial Fellowship was establis in 1993 to commemorate a former Ph.D. gradu Pam Basu, who was killed in a tragic carjackir in 1992. The Fund is intended to support doctor students in the Department, especially women. Individuals who wish to contribute to one of th Mary Ann Stevwing (General Chemistry
Office), Barb Svitek (Receptionist), Nancy
Woodring (Chair's Secretary).

Electronics Shop: Bob Muha, Dave Emala, Chuck Fleishaker, Jim McNerney.

Glass Shop: Bob Tobin, Bob Greer, Joe Zagorac.

Machine Shop: Dennis Sicher, Ken Contaldo, Tom Gasmire, Jeff Sicher, Roy Watters, Bill McHattie.

Undergraduate Instruction Support: Stan Paul, Ron Zulick.

Demonstrator: David D'Emilio.

Research Group Secretaries: Margie Augenstein (Yates), Sandra Law (Asher) Mary Beth Merenick (Yates-Langmuir), Jean Rock (Dowd), Michelle Russo (Curran and Cohen).

Stockroom: Bill Grissom, Stewart Paton, Larry Suckfield.

WHERE DID OTHERS GO?

John Wick: Everyone should know that on August 31, after 33 years with the University, John Wick retired. It is not quite the same place without him.

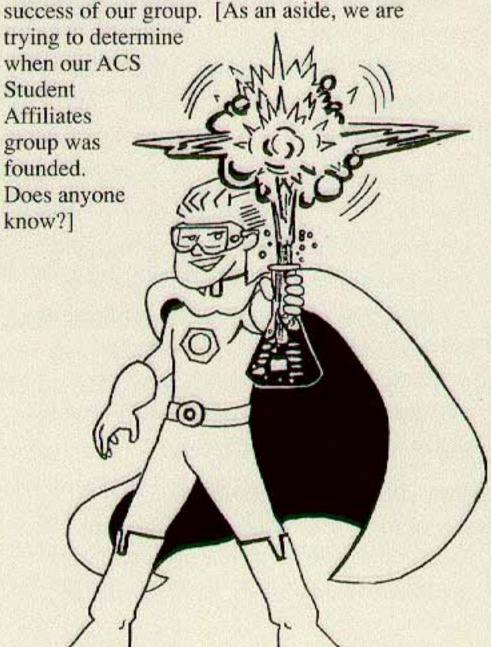
Dick Howe: (aka W. Richard Howe) most people know that Dick has been the Associate Dean for Administration in the Faculty of Arts and Sciences since 1986.

Larry Friedman: Assistant Chair from 1987-1989, Larry left the department to become the Associate Director of Beckman Center for the History of Chemistry at the University of Pennsylvania. in the greater Pittsburgh area. Affiliate
members conduct the two Saturday laboratory
sessions for the students each year. The
Honors Organic Program is in its third year.

Numerous speakers from academe and industry come into speak to the group each year, and with the enthusiasm of the members, last spring the Affiliates sponsored the first University Chemistry Day.

Our friend below is the group's new mascot, Benzoyl Peroxide, the Free-Radical Man...affectionately known as Ben. In 1994, Ben has been appearing all over campus in fliers and on T-shirts, becoming a familiar face to all.

The Department is very proud of its Student Affiliates group. As the group moves into 1995, we look forward to the continued success of our group. [As an aside, we are



funds may use the enclosed card.

CURRENT STATISTICS

Undergraduate statistics: 76 B.S. degree granted in 1993-94; in 1994-95, 176 undergrad ate majors, including 28 regular track Chemist majors, 113 Bio-option majors, 13 Education option majors, 7 Business option majors, 7 Polymer Science option majors, 6 Computer Science option majors, and 2 Communications option majors.

Graduate statistics: 1994-95 graduate enrollment: 41 entering students (including 4 to started in January 1994); 185 total full-time graduate students in residence and 11 part-time masters students. Of these students, we have men and 69 women.

ANSWERS A PIECE OF THE PAST...

Francis Clifford Phillips, 1875-1915

David S. Pratt, (organic chemistry)

Alexander Silverman, (inorganic chemistral) 1915-1918 (chemistry) 1918-1950

Henry S. Frank, 1950-1963

1915-1918[†]

W. Edward Wallace, 1963-1977

Frederick Kaufman, 1977-1980 David M. Hercules, 1980-1989

N. John Cooper, 1989-1994

Andrew D. Hamilton, 1994-present

*No relation to David W. Pratt