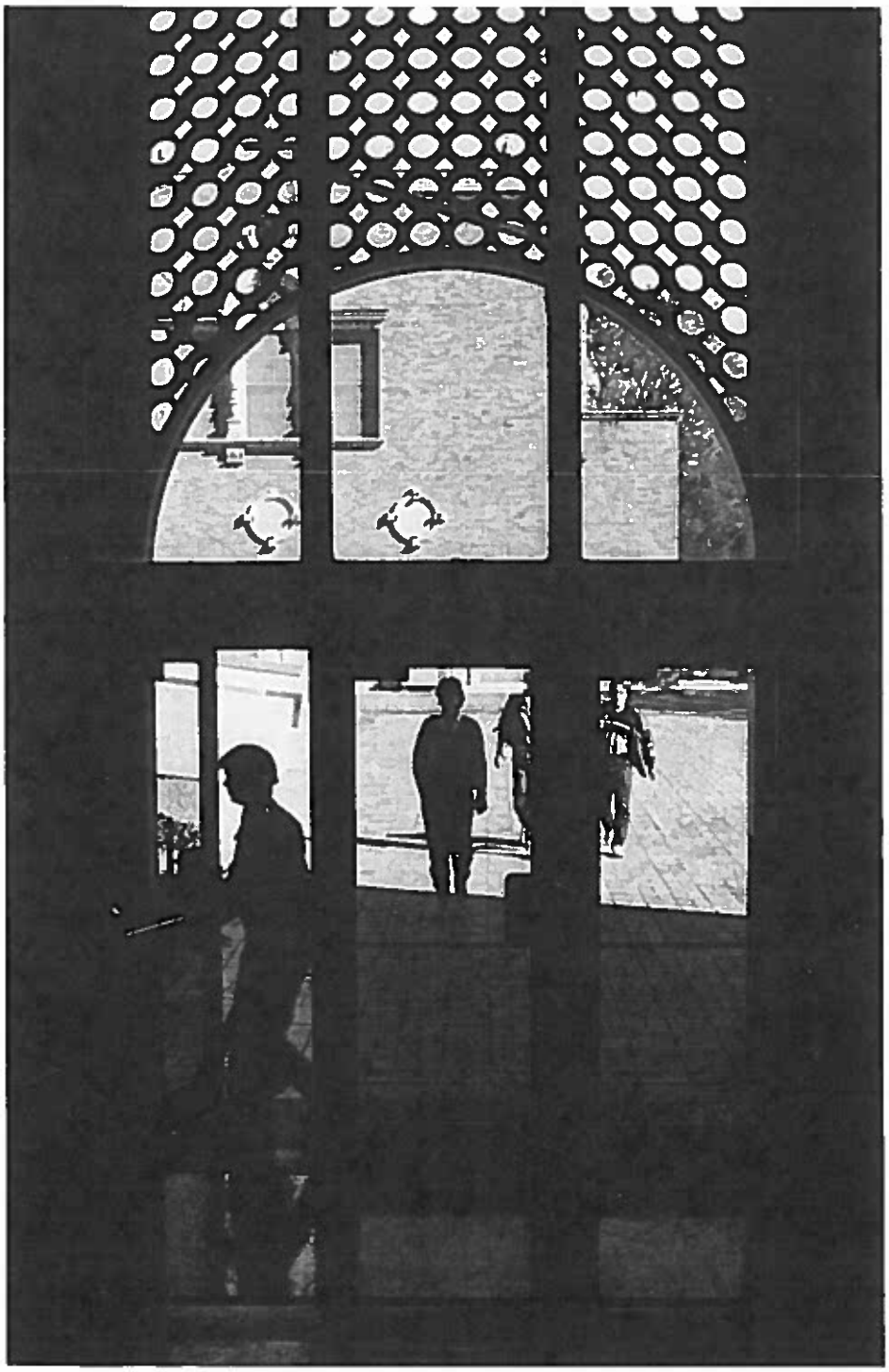
the Test Tube

1987 NEWSLETTER
THE DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY
Texas Tech University Lubbock, Texas

Editor: Henry J. Shine Editorial Assistant: Jane Bradley



To Our Readers:

I hope that you enjoy this eighth edition of our departmental newsletter. As usual, Henry Shine has done an excellent job of collecting information about departmenal happenings and items about former students, and has assembled the material in an attractive and readable format.

The 6.5 million dollar Chemistry Building Renovation Project is well underway. The interior of the original building has now been gutted, and the reconstruction which will provide new classrooms, general chemistry and biochemistry laboratories, departmental shops and instruments rooms, and a room for computer-assisted instruction is in progress. Occupancy is now anticipated in October, 1987.

Other items of note include: the installation of 200 and 300 megahertz super-conducting nuclear magnetic resonance spectrometers which were purchased with funds from the National Science Foundation and matching monies from Texas Tech; enhancement of Texas Tech's status to that of an "Advisory School" by Dow Chemical USA; establishment of a MACLAB for general chemistry, following the donation by Apple of seven Macintosh microcomputers plus peripherals to Russ Larsen; and continuation of the Weymouth-Campbell Scholarships in Chemistry program by the Weymouth Corporation.

Our new Bachelor of Science and Bachelor of Arts degree programs in biochemistry have attracted more than 50 majors in the past year and a half. Also, you might be interested to learn that in the fall of 1975 the departmental roster included 40 graduate students and three postdoctoral associates. For the fall of 1986, there were 70 graduate students and 26 postdoctoral associates. We've come a long way, baby!

On a less fortunate side, the economic problems which beset the State of Texas are profoundly affecting our department. Please don't forget that you can lessen the impact of such financially-troubled times by a donation to the Department of Chemisty and Biochemistry as part of the Texas Tech Capital Campaign.

Sincerely,

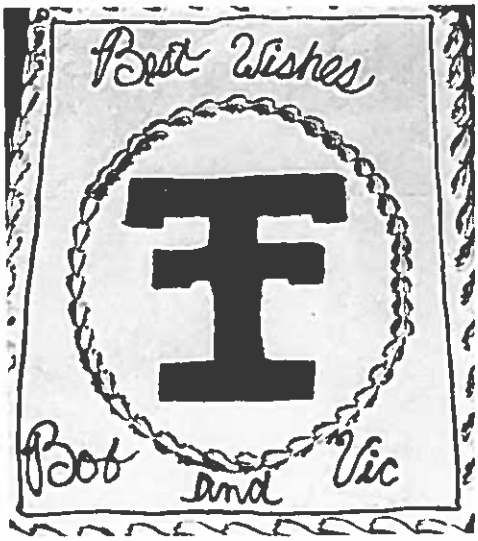
Richard A. Bartsch

Richard A. Bartsch
Chairman

Dr. Rekers and Glassblower Vic Johnson Retire.

Vic and Wendy Johnson, Bob and Shirley Rekers at their joint retirement reception.

Glassblower Vic Johnson and Associate Professor Bob Rekers figure how many pieces per sq. ft.



Before. No picture of after.

A party was held at the Bartsch's house on June 28, 1986 to honor the retirement of two long-term members of the Department, Robert Rekers and Victor Johnson.

Bob Rekers came to Texas Tech in 1955 when it was Texas Technological College and we were the Department of Chemistry and Chemical Engineering. Before coming to Tech, Bob had worked for five years as an analytical chemist for Eastman Kodak in his home town, Rochester, NY, and for four years as a spectroscopist in the U.S. Naval Test Station at China Lake, CA. At Tech, Bob Rekers joined the division of analytical chemistry, beginning what was to become 31 years of service to the Department. Apart from his heavy teaching duties in general and analytical chemistry, Rekers took on a heavy load of administrative duties. He was Assistant to the Head of the Department, Prof. Joe Dennis, several times, and became Assistant Chairman during the years 1969-1975 when your editor was Chairman of the Department. The design and construction of the addition to the chemistry building took place in that period, and to Bob Rekers fell the job of being chairman of the building committee and liaison officer between the Department, the architects, the administration, and the builder. It is a tribute to his hard work and eagle eyes that we have such a splendid building. This editor can remember discovering a crew with sanding machines, wearing away at the main inner staircase of the finished, new building, and asking Bob Rekers what was going on. "They didn't have the right curvature on the insteps of the stairs" he said. The Department had so much respect for Reker's ability in this regard that he was asked to serve once more in the liaison capacity with the architects for the renovation of the old chemistry building. That renovation is proceeding at full pace and should be finished for occupancy in the fall, 1987. Bob Rekers has a wealth of practical knowledge of cars, equipment, plumbing and construction problems, always ready for sharing with his colleagues. And, Bob, the editor of this excuse for a Newsletter hasn't forgotten that you put his car up on blocks in 1956 when he skedaddled off to England for the summer. To prove that, we print your photo of those days.

Bob and Shirley Rekers will stay in Lubbock and, among other things, enjoy the benefits of relaxing in their cabin in the Colorado mountains.

In late December, 1970, the Chairman of the Department received an unexpected and wonderful Christmas present. Out of the blue came a letter from a **Victor L. Johnson** with the first sentence saying: "Are you looking for a glassblower?" For years we had

Dr. Robert Rekers, 1956, taken from the class photo, Chemistry 331.

talked of, hoped for, and asked for a glassblower, to no avail. Then, in 1970, still in the honeymoon period of his chairmanship (in those days, there were such periods!), the new chairman got his chance to push for one.

Vic Johnson had worked as a glassblower at Monsanto Research Corporation in Dayton, Ohio, for 25 years, when, in 1970, Monsanto decided to close its shop. By wonderful coincidence Vic was attracted to West Texas not only for its fine rivers, lakes, trees, lush grass and beautiful vistas, but also because he was into gliding and he felt that West Texas would be a wild place for that hobby. His *wanting* to come to West Texas and his extraordinary experience in glassblowing helped us to sell the University on the idea of establishing a glassblower in our Department. This did not occur without some horse trading, in which the Department and the College of Arts and Sciences had to fund Vic's job until the University coughed up his salary on a permanent basis. But, it worked. Vic, after visiting us, was given a free hand in designing a glass shop while still in Dayton. He ended up, so he said, with a better shop than the one in Monsanto, built here for him in a lab that had been stripped of all furniture and benches. Money was not much more plentiful then, but went a lot further. The Department spent $16,000 of its own M E and T (maintenance, equipment and travel) to equip the shop, a sacrifice which has paid handsome dividends ever since. Vic Johnson began his work with us in May, 1971. At that time Dean of Arts and Sciences Larry Graves had described Vic, in the letter to the University requesting Vic's appointment, as "a rare find". This, he turned out to be, indeed. We all wish him and Wendy long and happy years of retirement.

Working along side Vic during his last year before retiring was assistant **Ms. Wendy Wymer**. Wendy has now taken over the glass shop, and looks forward to moving into new quarters in the north wing in the fall, 1987.

Computer Impact in the Department

For several years now most of the departmental secretarial work has been taking place in a pool of IBM word processors in a second-floor office suite. Many individuals and research groups have, to one degree or another, computerized their work, their manuscript writing, chart drawing, and instrument usage. The most recent big jump in computer use, though, is in undergraduate instruction. Already, in the planning of the renovation of the so-called old chemistry building (now called the North Wing), an undergraduate High-Technology Chem Lab (MacLab) for microcomputer use was planned. However, developments came too quickly, in the form of an **Apple Computer Gift**, for the Department to wait on the renovation.

Apple Computer, Inc., presented the Department with a matching equipment gift in support of the MacLab. The Apple donation consisted of seven 512K Enhanced-Macintosh microcomputers with accompanying external disk drives, a printer, and AppleTalk Network connectors. The MacLab is housed temporarily in the South Wing but will move to spacious quarters upon completion of the North Wing renovation. Rather than wait over one year for completion of the renovation to introduce microcomputer use into the Freshman Chemistry program, the MacLab was opened on November 4 to the two largest, first-year lab courses. Over 850 students—a logistical feat in itself—used nine Macintoshes to carry out an exploratory data-analysis experiment. We now have the capability to have students do exciting, modern data analysis—an important aspect of a laboratory science. Early in 1987, we hope to have a total of 25 Macintoshes, all connected to five printers through an educational network server, containing student's private files, applications, and course materials.

These exciting developments have been brought about by the innovative planning and work of Dr. Russell Larsen, Coordinator of General Chemistry.

Also devoting a lot of their time to the department's computer facilities and planning are Dr. Walt Chesnavich and Dr. John Marx. Dr. Marx is the troubleshooter for the Department's word processor pool and has brought smooth-working efficiency to the erstwhile occasionally-malfunctioning connected systems. Dr. Chesnavich keeps tabs, particularly, on Macintosh innovations and sees that those of us who still regard microcomputers as black boxes are kept apprised and up-to-date. Together, Marx and Chesnavich are undertaking the networking of our individual computers so as to allow for communication among all. Walt Chesnavich says "by the time the TestTube is published I expect we will be installing the network—if everything goes right". Seeing that this editor uses a five-finger ink-writer (otherwise known as a Pilot Razor Point, black) and divides his writing between his Lubbock and London work-stations, it wouldn't surprise him or anyone else if Walt was right. Of course, in future years, the editor will be able to sit back while all networkers talk directly to Jane Bradley's word processor, and Jane feeds copy directly on to our guiding light, *Misselaineous*, at the Tech Press. We'll drink to that.

Meanwhile . . . on the campus, separate networks are being established, at long last, for academic and administrative computing. The Chem-Biochem building will be connected directly to the academic network, which will have a VAX 8650 mainframe plus a number of VAX 111780 and other, smaller, computers.

One of these days, the TestTube will be the only place in the Department where that vanishing piece of glassware will be found.

News of Faculty

Dr. Joe Adamcik was elected in the Fall, 1986, to his third term as a member of the National Board of Directors of the American Chemical Society. During 1986 Adamcik served by election also on the Executive Committee of the Board of Directors, as Chairman of the Board Committee on Grants and Awards. He was appointed as a member (and vice-chairman by election) of the Society Committee on Chemical Abstracts Service, and a member of the Society Committee on Budget and Finance.

In April, 1986, Adamcik participated as an invited member of a panel on "Effect of Corporate Mergers on Research in the United States." This panel was part of the Spring, New York meeting of the ACS, and was sponsored by the Division of Industrial and Engineering Chemistry. Adamcik also attended the Fall ACS meeting in Anaheim, California, the ACS Board meetings in Belmont (Baltimore) in June, and represented the ACS Board Committee on Grants and Awards at the February meeting of the PRF advisory committee.

Dr. Dan Armstrong was promoted to full professor in September, 1986. He presented a paper on gradient liquid chromatography at the Spring ACS meeting in New York, and in August spoke at the Gordon Conference on Separation and Purification on "Cyclodextrins in Separations". Armstrong presented papers and was a session chairman at the Southwest Regional ACS meeting in Houston in November. He was a speaker also at the Minnesota Chromatography Forum (May) and the Eastern Analytical Symposium (October). Other research lectures were given at Dow Chemical (Freeport) and Iowa State University.

Chairman **Richard Bartsch** has been named to the Editorial Board of the *Journal of Inclusion Phenomena*. During the summer Bartsch spent two months in Europe visiting universities and presenting papers at three international conferences. In July, Bartsch spoke on the "Synthesis and Alkali-Metal-Cation Complexation of N-Aryl[3.2.2]cryptands" at the 4th International Symposium on Inclusion Phenomena, Lancaster, England. In September he spoke about his research in alkali metal extraction at the 11th International Symposium on Macrocyclic Chemistry, Florence, Italy, and in transport of metals across liquid membranes at the International Solvent Exchange Conference, in Munich, FRG.

Dr. Bartsch renewed old friendships in Poland during August, with visits and seminars on metal ion complexation by ionizable crown ethers at the Technical University, Wroclaw, and the Silesian University, Katowice. While in Germany, too, he presented a seminar at the University of Würzburg, the scene of his year-long sabbatical in '67-'68.

Dr. Sandy Dasgupta's work in the methodology of trace-metal analysis was recognized by being designated as a "Significant Accomplishment" in basic energy sciences among the sponsored projects of the USDOE. Dasgupta and his research coworkers were honored for their chromatographic method of detection of sub-picomolar ($< 10^{-9}$) concentrations of several metals.

Dasgupta spent some time in Sweden in June, having been invited to Umeå Universitet as a "faculty opponent" for the Ph.D. disputation of Knut Irgum on his thesis "Reactive Polymers in Analytical Chemistry". While in Sweden, Dasgupta lectured at BIFOK AB on "Membranes in Analytical Chemistry: A Personal Tour".

Sandy has made more extensive travels with his researchers in the U.S. During the summer they spent 10 weeks in rural North Carolina and downtown Los Angeles conducting field studies in measurements of hydrogen peroxide and formaldehyde concentrations for the EPA and the California Air Resources Board. During this winter the group will have made a similar study in Big Bend National Park, measuring the same contaminants along with sulfur dioxide and nitrogen dioxide. Would the rest of us have thought that such things could be found in the air of Big Bend? Never!

Dasgupta's lectures and field studies illustrate the scope and character of his research—the invention of unique devices for measuring extremely small amounts (parts per trillion) of metals and other compounds in solution and in the air.

Dr. John Foley spoke on "Vibrational Spectroelectrochemistry" at the Pittsburgh Conference, in Atlantic City in March, 1986.

Dr. Robert Holwerda continues to serve, but for the last year, as Associate Dean (Research) in the College of Arts and Sciences. One of Bob's major tasks this year has been in computer planning for the College's departments. Part of this planning has resulted in allocating funds for microcomputers in several of the departments, one of which was our own. Holwerda also served as Chairman of the South Plains Section of the ACS, which, this year, sponsored the South Plains Research Symposium (see Awards Banquet), and a public lecture on disposal of nuclear waste on the High Plains. In research matters, Holwerda gave an invited paper at the Fall ACS meeting's (Anaheim, Calif.) symposium honoring his former mentor, Prof. Harry Gray. Holwerda has also initiated a collaborative research program with former graduate student, Clint Anderson (M.S., May '85) at the Lubbock TI plant. Anderson supervises the Auger Spectrometer at TI, and is now working with Holwerda on both Auger and ESCA determinations of valence state ionization energies from carbon 2p orbitals in various organometallic compounds. Participating in the joint work is another alum at TI, Kathy Polocek (B.S., May, 1986).

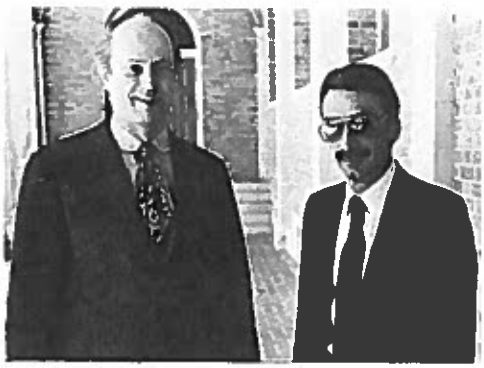
Dr. David Knaff's most important news, he says, is in becoming a father-in-law. Congratulations may be sent to him in the usual denominations. Lower down on his scale in news is his election to the Editorial Board of *Photosynthesis Research*, and appointment as a member of the NSF Review Panel on Plant Biology.

Taking time out from being a father-in-law, Dave was able to travel to Europe this summer to do collaborative research in Holland (Department of Biophysics, University of Leiden) and Switzerland (Biochemical Institute, University of Zürich) and to give lectures at the Max-Planck Institute for Biochemistry in Martinsried, Germany, the Biochemistry Department of Milan University, and the Botany Department of the University of Bologna.

On this side of the Atlantic, Knaff gave papers at the VIIth International Congress on Photosynthesis, Providence, RI (August), and at the 30th Annual Meeting of the Biophysical Society, San Francisco (February).

Dr. Russell Larsen has been named President-elect of the Southwestern and Rocky Mountain (SWARM) division of the AAAS. Much involved in introducing microcomputers into TTU's general chemistry program, Larsen served as an Apple Computer consultant at the Universities of Oklahoma (March) and Houston (November), and at the MacWorld Exposition in Dallas in October. At UH he gave talks on "Campus MacZealotry" and "Courseware Development." In March, he attended High School Chemistry Teacher Workshops for the Greenwood (TX) and Fort Stockton ISDs, and in June served as a lay advisor for the Lubbock ISD before the State High School Textbook Selection Committee.

Additional contributions to chemical education were made in lectures at the 62nd SWARM meeting in Boulder, Colo. (April), the Southwest Regional ACS meeting in Houston (November), and the 9th Biennial Chemical Education Conference in Bozeman, Mont. (August).



Former student Dr. Gevork Minaskanian (Ph.D., 1979) and former mentor (left) Dr. John Marx.

Dr. John Marx presented papers at the Fall ACS meeting in Anaheim (Synthesis of Anhydro-β-rotunol) and the SW Regional ACS meeting in Houston (Synthetic Studies Toward Phytuberin).

Dr. Edward Quitevis presented a poster paper at the International Laser Science Conference in Seattle (October) on "Picosecond Reorientational Dynamics in Polymer Solutions". As a participant in the seminar exchange program Quitevis also gave seminars on picosecond laser spectroscopy at Texas Lutheran College and Midwestern State University.

Dr. Wilse Robinson, at the time of writing this 8th newsletter, and while Lubbock is under snow, is in summer-time Australia, on his annual visit to continue research in his former University (Melbourne) and to attend several conferences. Robinson attended the APS meeting in Las Vegas, Nev. (March), as a member of the Executive Committee of the Division of Chemical Physics. In July, Robinson was a keynote speaker at the meeting on Flash Photolysis and its Applications, held in London to honor Sir George Porter, Nobel Laureate and the world's foremost personage and doyen in studies in photolysis. Robinson spoke on "Liquid Water and Ion Hydration Dynamics". Robinson also attended two Gordon Conferences in New Hampshire in August, on Water and Aqueous Solutions (New London), at which he was an invited speaker, and Electron Donor-Acceptor Interactions (Plymouth).

Dr. Henry Shine spent the summer in Germany as a Humboldt Foundation Senior U.S. Scientist Awardee. Nominated by the University of Hamburg, Shine was given an office in the Institut für Organische Chemie and the freedom to come and go as he wished, after having given two inaugural lectures in the Institut. The Shines were fortunate in renting a home in the countryside south of Hamburg in the village of Helmstorf, from which Hamburg was reached either by car or commuter train (the S-Bahn). During the summer's tenure of the Award, Shine was able to spend a week in each of Poland, England, Holland, and Sweden, giving lectures and attending chemistry conferences. In Poland, Shine spent three days in Wroclaw lecturing and meeting old friends and former Lubbock postdocs (Roman and Irena Ganzarc, Jan Zygmunt, Ewa Gruszecka, and Mirek Soroka), before going on to Lódz (pronounced Wooch) to lecture at the Academy of Sciences. In Holland, Shine presented a paper in the 12th Symposium on Organic Sulfur Chemistry, while in England he presented a paper in the 4th International Conference on Mechanisms of Reactions in Solution. At the University of Lund, in southern Sweden, Shine lectured on electron-transfer reaction, and played hooky visiting glass factories in the Boda region.

For three days in June the Humboldt Foundation hosted a gathering of all of its Awardees, fellows, associates and their families in Bonn. The Foundation's support of research covers not just the sciences but the complete breadth of University disciplines. Most of its support goes to Senior and Junior

Student awardees at the 1986 Garland Lecture, Department of Chemistry, Texas A and I. (L to R): Luis I. Hernandez, Teresa J. Arnold, Dr. John S. Thompson (Chmn., Chemistry Dept.), Lisa J. Gruber (Fred M. Garland Scholarship Award), Frank D. Akridge, Jeffrey Lozano, and Dr. Shine (Garland lecturer).

fellowships, open to application from many parts of the world. The U.S. Senior Scientist award program, unavailable by application, is the Foundation's smallest but most prestigious program. So large is the Foundation's overall involvement in research support that nearly 1500 people were hosted in Bonn. An impression of the way the Foundation goes about its work can be gathered by the outing it provided on the Rhein. A special train took visitors up the river to Bingen, from which two large boats brought them back on a day-long river cruise. The Foundation put on a scientific symposium for the U.S. Senior Scientist Awardees, who were housed separately at one of Bonn's hotels. An amusing development from that arrangement was to see in the hotel's basement garage 20 or more identical BMWs lined up. All of the Awardees got the same style, dark green, four-door sedan BMW on the low-rental arrangement with BMW in Munich. The row of official-looking, identical cars hinted at a convention of gangsters in the 30's or a meeting of the Russian secret police.

The Foundation's award gave Shine the chance to write research manuscripts in complete relaxation even though keeping in touch with research in Lubbock by telex and phone.

The Shines will return to Hamburg for the summer of 1987, to live in the same house in Helmstorf and to enjoy again the ambience of the old Hanseatic but cosmopolitan city-state of Hamburg.

Dr. Shine was the 1986 Garland memorial lecturer in the Department of Chemistry, Texas A and I University. The annual lecture and student awards ceremony commemorates Dr. Fred Garland, for many years a faculty member and chairman of the Department.

Shine gave an invited lecture at the Fall ACS meeting (Anaheim) in the Symposium on the Chemistry of Polynuclear Aromatics, sponsored by the Division of Petroleum Chemistry.

Former Chairman John Kice and Mrs. Kice showing again why they returned to Colorado.

Dr. Pill-Soon Song was appointed to his fifth term (1987-1989) as Editor-in-Chief of *Photochemistry and Photobiology*, the journal of the American Society for Photobiology. He has been appointed also to a four-year term as a member of the NIH Review panel on Cellular and Molecular Biophysics. In June, Song presented an invited paper (The Molecular Topography of Phytochrome as probed by Bilirubin Oxidase) in the ASP's Symposium on Full-Length Phytochrome (Los Angeles), while in October he visited Japan as a plenary lecturer at the International Conference on Phytochrome and Plant Photomorphogenesis, sponsored by the Yamada Science Foundation.

Dr. Robert Walkup has been the work-horse and guiding light in the Department's matching grant from the NSF for buying high-field NMR facilities. Apart from supervising the writing of the original grant application, and negotiating with various vendors after the grant had been awarded, Walkup, along with Jerry Mills, visited vendor application laboratories. In June, Bob and Jerry visited IBM (Danbury, CT), Brucker (Boston), and Varian (Newark, NJ). Our two representatives went on a shopping spree with $350,000 to spend, and this was, in no way, a case of *caveat emptor*. Vendors were eager to be accommodating with package offers, and our shoppers came away with **two** "cryogenic" NMR instruments (see the separate news on them).

In February, Walkup presented a paper (Progress Toward the Total Synthesis of the Aplysiatoxins) at the Gordon Conference on Marine Natural Products, while in November he and his students presented three papers at the SW Regional ACS meeting in Houston. Walkup also gave a seminar in the Chemistry Department at TCU in October.

Like Dave and Joyce Knaff, Bob and Debbie Walkup have more important, family news: the arrival of daughter Oree Roe Walkup on January 7, 1986.

Dr. Pill Soon Song to leave

With very mixed feelings we report the recognition given to our colleague of 20 years by his appointment as Chairman-designate to the Department of Chemistry, University of Nebraska, Lincoln. Song will leave Tech at the end of the Spring semester, 1987. On the one hand, we congratulate Pill on his appointment, while on the other, we just hate to see him leave. Pill Song joined our Department in the fall, 1965. In the ensuing years he has become internationally renowned for his work in physical biochemistry and photobiology. He has been Editor-in-chief of *Photochemistry and Photobiology* since 1975, the year in which he was also designated Paul Whitfield Horn Professor. Professor Song has published many scientific papers and articles, and is regularly a speaker at conferences all over the world. We all wish him well in the frozen north, and hope to see and hear of him frequently in the future.

Prof. Pill-Soon Song, Chairman-designate, Department of Chemistry, University of Nebraska.

News of Emeritus Faculty

Prof. Morris and Mrs. (Fidelia) Stubbs have been living for one year in the La Vida Llena retirement center, in Albuquerque, NM. They have written about the wonderful year it has been, one of good health, some traveling, and their happiness in attending the marriage of Morris's daughter, Joy, in California. We repeat our messages of last year: the Stubbs' latchstring is always out for old friends and visitors.

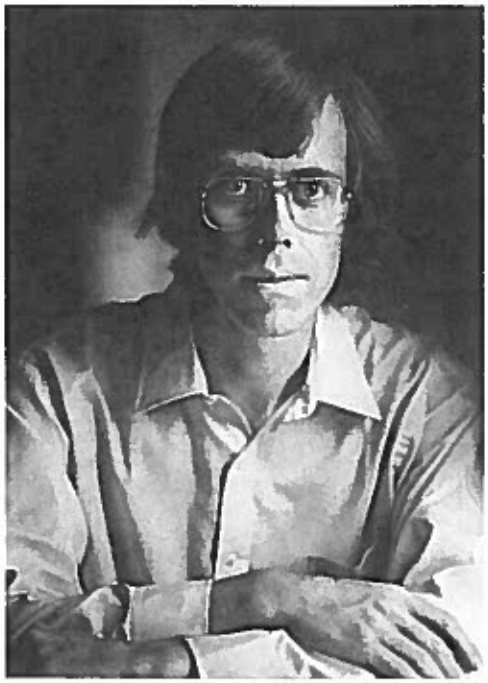
Tech Honors Former President Dr. Robert C. Goodwin

October 4, 1986 saw a gathering of former Presidents of Texas Tech in a ceremony honoring their service to the University. A commemorative plaque for each former president has been placed in the University. Among those present was Robert C. Goodwin, Head of our Department 1930-38, Dean of the Graduate School, Dean of Arts and Sciences, and President (1959-1966).

Former President and Department Head, Dr. Robert C. Goodwin.

New Faculty

Dr. John K. Foley joined the Department's division of analytical chemistry in the fall, 1986. Dr. Foley was born in England, where he obtained the B.Sc. (Imperial College, London) and M.Sc. (University of Southampton) degrees. Thereafter, he came to the USA for further graduate work, and received the Ph.D. from the University of Utah in 1986. At Utah he did research principally in electrochemistry with Professor Stanley Pons. At Tech, Dr. Foley will take up research in infrared- and UV/visible spectroelectrochemistry.



Assistant Professor John Foley.

Saturday Seminar Series

The Saturday Seminar Series (S^3) for High School Chemistry Students completed its 1986 program with an airship competition. Coronado High and Lubbock High both constructed radio-controlled, helium-filled airships (real illustrations of the gas laws, especially Avogradro's Principle). Dr. Roy Mitchell acted as coordinator and Admiral-of-the-Fleet. The airships were designed and built by the students at their high schools. The Coronado airship was a technological wonder, being controlled remotely by a dual-channel radio. That airship was 8 feet in length and about 5 feet high. It flew in the hostile currents of the Coronado gymnasium from end to end and succeeded in rescuing the Lubbock High entry (constructed of a multiplicity of helium-filled garbage bags attached to an undercarriage) which was marooned on the ceiling due to the Charles' Law effect of the hot lights. We saw an awesome display of the latent talents possessed by our budding scientists and engineers.

The 1986 S^3 Program centered around laboratory Robotics, an example of real high tech chemistry. The Series is expanding in attendance. A group from Lefors drove 4 hours to come to the November program. Levelland High School set the record for attendance with 28 students being present. We are delighted that our outstanding West Texas high school chemistry teachers are supporting S^3 by sending their students to it.

The Chemistry and Biochemistry Department— American Chemical Society Annual Awards Banquet

Once again the congenial atmosphere of the Faculty Club was the scene for our banquet, on April 24, 1986. Awards to outstanding students and teaching assistants were presented. Notable this year was that all TA awards went to graduate students from foreign lands. Since TA awards are based on student evaluations, this year's awards put to rest the oft heard (and unproved) complaint about the poor quality of foreign TAs. Also honored at the banquet were area high school teachers, and finalists from West Texas high schools in the preliminary trials for the International Chemistry Olympiad. The Olympiad was the subject of the evening's banquet speaker, one of TTU's own Ph.D. graduates, Dr. Michael D. Hampton, of the Department of Chemistry, University of South Florida. Dr. Hampton was one of the U.S. faculty coaches at the Olympiad, held in Leiden, Holland. His lecture "Carrying the Torch for the International Chemistry Olympiad", described the intensity of preparation and coaching of the U.S. students who were chosen, from among all U.S. competitors, to represent the U.S. in Leiden. We learned with pleasure of the successes of some of the U.S. participants, successes which are becoming more pronounced now that the U.S., only a participant in recent years, has gained some experience. (See guest article).

Awardees Sherri Fugate and Robert Lopez with Dr. R. A. Bartsch, Departmental Awards Banquet.

Dr. Robert Holwerda and some ACS Symposium awardees, Departmental Awards Banquet. Front row (L to R): Rabi Prusti, Joseph Martz, Don Kyle, Woo-Young Jeong. Back row (L to R) Holwerda, Steve Wagy, Ray Cunningham, and Boyd Gafford, with Nihal Obeyesekere, superior TA performance awardee.

Local High School Teacher Wins Southwest Regional ACS Award

Royce E. Aikin has won the 1986 Southwest Regional ACS Award in High School Chemistry Teaching. Royce is the chairman of the Science Department at Lubbock High School. Readers may remember that Royce won the South Plains Section Outstanding High School Chemistry Teacher Award in 1985. This year he won also the 1986 Presidential Award for Excellence in Science Teaching. The SW Regional ACS Award was made during the regional ACS meeting in Houston in November.

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

Outstanding High School Teacher: **Mr. Macky McWhirter.**

Special Service Award for the Teaching of Chemistry: **Ms. Jeanelle Culp** (Monterey High School), **Mr. Edgar Jarman** (Coronado High School).

Awardees, Departmental Awards Banquet. Front row (L to R): Ingrid Dearmore, Karin Strout, Sean Dennis, and Mark Corwin. Back row (L to R) Jeffry Nichols, Brian Simmons, Charles O'Rear, and Danny Smith.

Scholarships and Awards to Undergraduate Students, 1986

The Samuel Hunt Lee Memorial Award (to an outstanding freshman chemistry major), **Brian Simmons**.

The William Barnett Guerrant Award (to an outstanding student in organic chemistry), **Sherri Fugate** and **Stacy Weedon**.

The CRC Press, Inc., 39th Annual Freshman Chemistry Achievement Award (to an outstanding student in freshman chemistry), **Rush Spencer Wells**.

American Chemical Society Student Affiliate Scholarship (to an outstanding sophomore chemistry student), **Shawn Roach**.

The Texas Institute of the American Institute of Chemists, Student Award for outstanding accomplishment in a baccalaureate program in chemistry or chemical engineering, and potential as a professional chemist), **Caren Caffrey**.

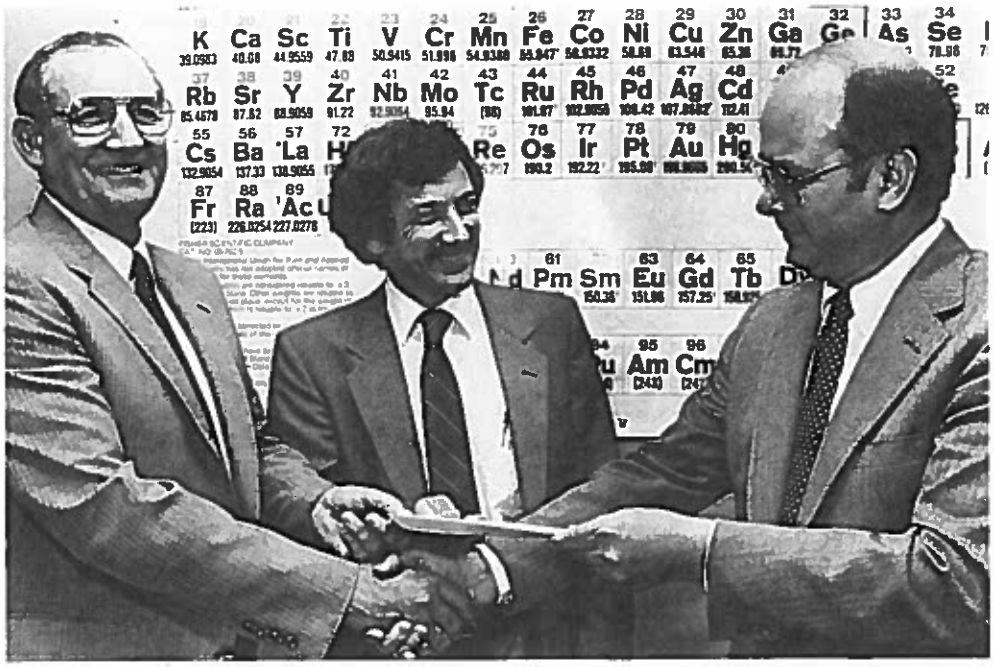
The Merck Index Award (for outstanding achievement by a graduating senior), **John Mings**.

The Weymouth-Campbell Scholarships: for superior performance (as a freshman chemistry major) **Mark Corwin, Brian Simmons**; (as a sophomore chemistry major) **Jeffry Nichols, Charles O'Rear, Raymond Smola**; (as a junior chemistry major) **Ingrid Dearmore, Sean Dennis, Daniel Smith**; (as a senior chemistry major) **Karin Strout**.

Dow Chemical Company Scholarships for outstanding achievement (as a sophomore chemistry major) **Sherri Fugate**; (as a junior chemistry major) **Robert Lopez**.

An Update on the Biochemistry BA/BS Program

In our last newsletter we announced the change in the Department's name and the turn toward a greater stake in biochemistry. A new BA/BS-degree program in biochemistry was unveiled. In its first year one student (Carol Davenport) was graduated with a BA degree. We bet that Carol may not be aware that her name will be a historical marker in the Department's annals. To date there are 52 majors in the program, from which it is anticipated that seven will graduate in 1987.



Larry Wright, V.P. of Texas Operations, Dow Chemical USA, and Ric Massey (center) present a $5000 unrestricted grant to Dr. R. A. Bartsch.

Teaching Assistant Awards to Graduate Students

Texas Tech University Outstanding Graduate Student Teacher Award: **Bal Ram Singh**.

Department of Chemistry and Biochemistry Award for Superior Performance as a Teaching Assistant: **JungKap Choi, Nihal Obeyesekere, Edmund Ndip**.

South Plains Chemical Research Symposium Awards

For outstanding presentation: **Rabi K. Prusti** (graduate); **Joseph C. Martz** (undergraduate). For excellent presentation: **Raymond T. Cunningham, Woo-Yeong Jeong, Don Kyle, Timothy Ward** (graduate); **Steve Wagy** (undergraduate).

International Chemistry Olympiad, South Plains Section Finalists

Chris Smith (Lubbock High School, Mr. Royce Akin, teacher and coach); **Alan Golightly** (Coronado High School, Mr. Edgar Jarman, teacher and coach); **Clayton Turner** (Levelland High School, Mrs. Tommie Jo Hunt, teacher and coach); **Ronny Wall** (Plains High School, Mr. Macky McWhirter, teacher and coach).

Jeanette and Joe Dennis Scholarship Endowment

It is a pleasure to report the endowment of a scholarship fund in the Department by Professor-emeritus, and long-time former head, Joe Dennis and Mrs. Dennis. The Dennises have given the University $6000, the interest on which is to fund scholarships for undergraduate students pursuing a major in chemistry or biochemistry with any degree objective. We can also report the further good news that the University will match the Dennises' award from its Capital Campaign, boosting the endowment to $12,000, immediately.

We record here the Department's thanks and gratitude for the unceasing interest shown in it and its students by Professor and Mrs. Dennis.

Postdocs and Research Associates

Dr. James Allaway (postdoc with Dr. Bartsch 1974-76) is a Senior Scientist in the Polymer Research Department of S. C. Johnson and Son, Inc., Racine, WI.

Prof. Witold A. Charewicz (visiting faculty member 1981-82, 1985, from the Technical University, Wroclaw, Poland) has been appointed coordinator of a country-wide Polish research program in the hyrdro-, electro- and bio-metallurgy of non-ferrous and rare metals, for the period 1986-1990.

Dr. Michael M. Chau (postdoc with Dr. Kice, 1976-77) has been named to the position of Senior Research Associate by the Coatings and Resins Group in the Research and Development Center of PPG Industries, Springdale, PA.

Dr. Bronislaw Czech (postdoc with Dr. Bartsch, 1982-86) is a Senior Scientist with Technicon Instruments, Tarrytown, NY.

Prof. Vinay K. Gupta (postdoc, 1986, with Dr. Dasgupta) has returned to his post in Ravishankar University, India. In August, he presented an invited paper on "Trace Atmospheric SO_2 Determination" in Leningrad, USSR. Not so well known is the fact that Prof. Gupta is an accomplished badminton player and judge, and will, in fact, be an umpire in the Seoul Olympics in 1988.

Dr. Hoon Hwang (Ph.D., TTU 1985, postdoc, 1985-1987, with Dr. Dasgupta) left in February, 1987, for a faculty position at Kang-Wan University, South Korea.

Dr. Tae Yoon Kim (postdoc, 1986, Dr. Song) is now a visiting scientist in the Department of Immunology, UT.

Dr. Kenneth Lin (postdoc with Dr. Redington, 1968-69) is Chairman of the Chemistry Department, National Taiwan University.

Dr. V. K. Rajasekhar, from Freiburg University, Germany, has joined Dr. Song's research group.

Dr. Eun-Sook Rhee (Ph.D., TTU, 1986) has stayed at TTU as a postdoc with Dr. Shine.

Dr. Jae-Seong Rhee (Ph.D., TTU, 1986) has stayed at TTU as a postdoc with Dr. Dasgupta.

Dr. T. Krishnan "Venku" Venkatachalam (Ph.D. Queen's University, Canada) has joined Dr. Shine's research group.

Two former Ph.Ds—Dong Hak Bae ('82) and Bill Heilman ('62)—and Charlotte Kaslik, Human Resources Administrator, from Pennzoil, Houston, with Dr. Shine, April 10, 1986.

Dr. Ibrahim Yilmaz (Ph.D., TTU, 1980) has returned to Tech for postdoctoral research with Dr. Shine. Dr. Yilmaz is on leave from his position as Assistant Professor in Bogazici University, Turkey.

Postdocs joining Dr. Bartsch's research group are **Dr. Philip R. Brown** (Brigham Young University), **Dr. Elzbietha Luboch** (Polytechnical University, Gdansk, Poland) and **Drs. Bozena and Jerzy Strzelbicki** (Technical University, Wroclaw, Poland).

Joining Dr. Dasgupta's research group in 1986 are **Dr. Kazimierz Jurkiewica** (Marie Curie Sklodowska University, Poland), **Dr. Syamasri Gupta** (Jadavpur University, India), **Dr. Samir K. Roy** (Bankura Christian College, India), **Dr. Hideharu Shintani** (National Institute of Hygenic Science, Japan), **Dr. Yoshiharu Hisamatsu** (Tokyo Institute of Public Health, Japan), **Dr. Janal A. Sweileh** (University of Alberta, Canada), and, as a Dow Chemical Research Fellow, **Mr. Kaj Petersen** (Technical University, Lyngby, Denmark).

Undergraduate Degrees

Bradley L. Bufkin (BA, cum laude)
Caren C. Caffrey (BS)
Carol A. Davenport (BA, Biochem)
Dean J. Fisher (BA)
Roger A. Howard (BS)
Cye S. Jeckel (BA)
Jerry D. McLaughlin, II (BS, cum laude)
John M. Mings, V (BA, summa cum laude)
Winford R. Murray (BS Chem/ Microbiol.)
Catherine M. Polocek (BS)
Raymond E. Savage (BS)
Robin L. Teague (BA)

Chem Majors Accepted for Medical/Dental School, 1986

Brad Bufkin, Baylor Medical School
Carol Davenport, UT Houston
Jerry McLaughlin, UT Houston
John Metzler, University of New Mexico Medical School
Abdul Thannoun, UT Houston
Parvin Dinyerian, UTSA Dental School

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

raduate Degrees, 1986

Ala M. Alak (Ph.D., August, Dr. rmstrong) "Cyclodextrin Stationary hases: Synthesis, Characterization, id Applications in Liquid hromatography".

C. Victor Cason (M.S., December, r. Bartsch) "Functionalized Crown hers as Ionophores in Ion Selective ectrodes".

Michael Davidson (Ph.D., May, Dr. naff) "Studies on Flavocytochromes om Photosynthetic Sulfur Bacteria".

A. K. M. Mansurul Hoque (M.S., ay, Dr. Shine) "Cation-Radical duced Oxidative Chemistry of zoalkanes and Arylhydrazones".

Don Kyle (Ph.D., December, Dr. arx) "Studies on the Synthesis of ccidentol and Phytuberin".

William L. McDowell (M.S., May, Dr. asgupta) "Determination of S(IV) at ow Parts per Billion Levels with nthranilic Acid".

Nihal U. Obeyesekere (M.S., ugust, Dr. Walkup) "Synthesis of ovel Malonaldehyde Derivatives for se in Organic Synthesis".

Cindy Peach (M.S., May, Dr. Knaff) Calcium Transport in Photosynthetic urple Bacterium *Chromatium inosum*".

Michael J. Pugia (Ph.D., December, r. Bartsch) "Macrocyclic lultidentate Ligands for Metal Ion omplexation".

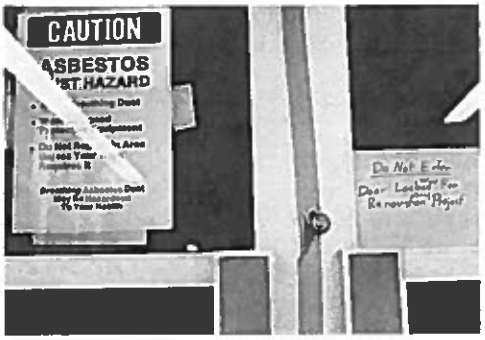
Eun-Sook Jang Rhee (Ph.D., May, r. Shine) "Heavy-atom Kinetic otope Effects and Mechanism of the cid-catalyzed o-Semidine and p-emidine Rearrangements and isproportionation of 4,4'-ichlorohydrazobenzene".

Jae-Seong Rhee (Ph.D., August, r. Dasgupta) "Peak-width Based low Injection Analysis".

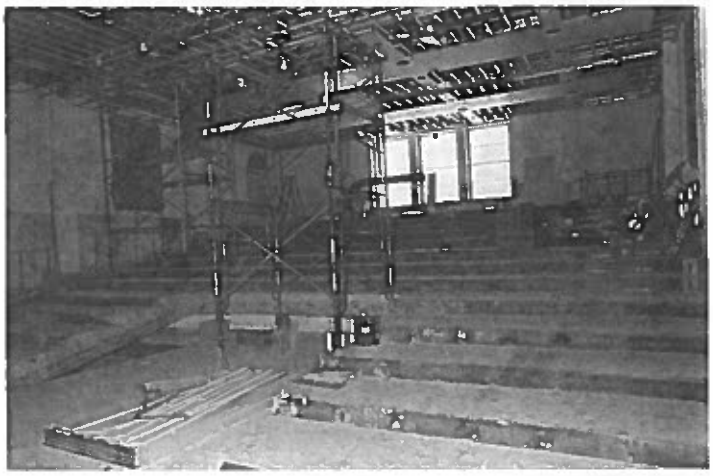
R. Max Wynn (Ph.D., May, Dr. naff) "Photosynthetic and espiratory Electron Transport hains in Purple and Green hototrophic Bacteria".

Renovation: This is what it looks like now.

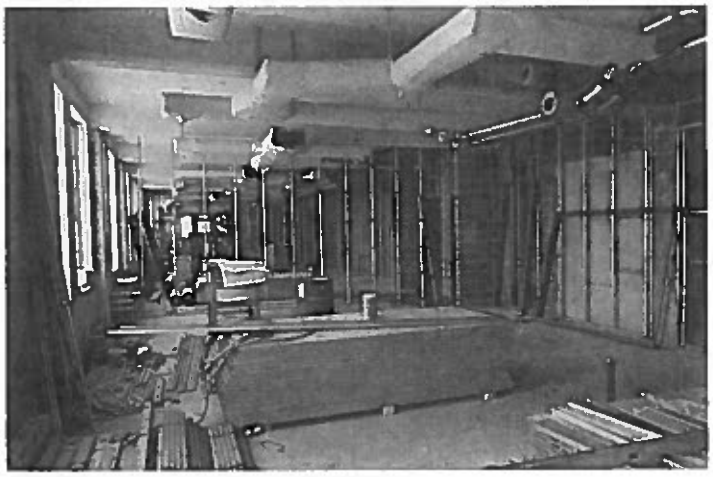
The pictures below were taken during the gutting and renovation of the old building. The places are hard to recognize now (except for the large lecture room, once called C101, later called room 12, and now called a mess). But, wait for pictures in the next newsletter. By then, we"ll be moved in. The building will still be unrecognizable, but beautiful.



The North Wing is closed off on April 10, 1986.



Large lecture room, once called C101. Section of stairs cut away for seating handicapped persons.



Second floor, north side. New laboratories for general chemistry.

Basement, below the old C101. Preparation for mechanical equipment room.

International Chemistry Olympiad

Guest Article by Dr. Michael D. Hampton

The International Chemistry Olympiad (IChO) is an event in which high school students represent their respective countries in scientific competition. The Olympiad began in 1968 when students from Hungary, Poland, and Czechoslovakia met in Prague, Czechoslovakia, for the first competition. In 1969 Bulgaria joined the competition. Romania, East Germany, and the Soviet Union joined the Olympiad in 1970. In 1974 Yugoslavia participated for the first time. In that same year Sweden became the first western block nation to enter the IChO. Austria, West Germany, and Belgium entered the competition in 1975 and Turkey and Finland joined the Olympiad competitors in 1978.

The United States first participated in the IChO in 1984. By that time the Olympiad had grown considerably; 21 nations participated. The U.S. has continued to participate annually in the Olympiad since 1984 and is proposing to host the competition in the mid 1990's.

The Olympiad is hosted by a different nation each year. Eastern and western block nations alternate in hosting the IChO. In 1984 West Germany was the host, and Czechoslovakia hosted the Olympiad in 1985.

The participants in the IChO consist of a team of up to four students and up to two coaches from each nation.

The competition consists of a five hour theoretical exam and a five hour practical exam. The host country is responsible for preparing a set of preparatory problems, which indicate the emphasis of the competition exams, and distributing these problems to the nations which will be competing in the Olympiad. The host nation also prepares the exams which are modified as necessary, translated, and typed by the coaches (collectively functioning as the International Jury) of the participating teams. The host nation is responsible for administering and grading the exams. The coaches also grade their teams' exams and compare their grading to that of the host nation.

The nation hosting the competition provides the participants with room, board, and some spending money. Each nation is responsible for the transportation of its team to and from the Olympiad, and the host nation provides all transportation needed within the host country during the event.

The Olympiad sounds like, and is, an outstanding experience. It is also exhausting. The event is typically ten days in duration and the schedule is very full. The first day all participants check in and attend the opening ceremonies. These are very formal. The proceedings are in the language of the host nation and a high official of the host country's government is usually the featured speaker. Translators are provided for the ceremonies and are accessible through various channels receivable on a radio headset each participant is provided. Generally, English, French, German, and Russian interpreters are present.

Immediately following the opening ceremonies the demanding schedule begins. The coaches will spend two, virtually-all-night sessions translating, modifying, approving, and typing the theoretical and practical exams. The coaches will also spend many hours in sessions planning future Olympiads, grading their students' exams, and comparing grades with the host country's graders. The students will spend one five-hour session taking the theoretical exam, have a day of rest, and spend another five hour session to take the practical exam. Dispersed among the working sessions are cultural and educational events including tours, lectures, and discussions. The Olympiad concludes with a formal closing ceremony during which awards are given to both students and coaches. The closing ceremony is followed by a raucous celebration.

The United States team made the highest score achieved by any team in its initial competition in the history of the IChO in 1984. That Olympiad was held in Frankfurt, West Germany. In that competition Peter Capofreddi from Boston, MA, earned a certificate, Keith Rickert from Chicago, IL, and Aaron DiAntonio from St. Louis, MO, earned bronze medals, and Seth Brown from Pittsburg, PA, earned a silver medal. It is interesting to note that Seth was fifteen years of age at that time.

The head coach for the U.S. team in the 1984 Olympiad was Patricia Smith from the Air Academy High School in Colorado Springs, CO, and I was the assistant coach. At the IChO in 1985 I was the head coach and Mary E. Key from St. Albans School in Washington, DC, was the assistant coach.

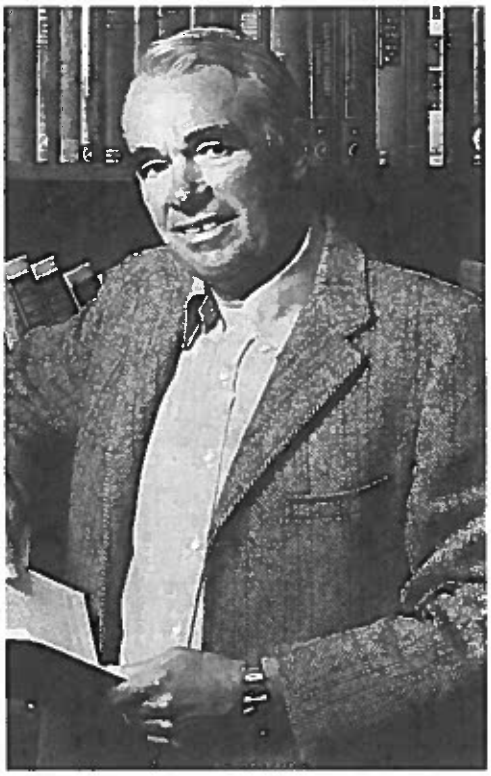
The IChO in 1985 was held in Bratislava, Czechoslovakia. In that competition Glenn Whitney from Mayfield, MA, and Eric Kelson from Bountiful, UT, earned bronze medals and Keith Rickert from Chicago, IL, and David Maymudes from Los Angeles, CA, earned silver medals.

The International Chemistry Olympiad was held in Leiden, Holland in 1986. Mary E. Key was the head coach and Walter Avila from the Air Force Academy was the assistant coach. In this Olympiad Keith Rickert earned a gold medal for the United States.

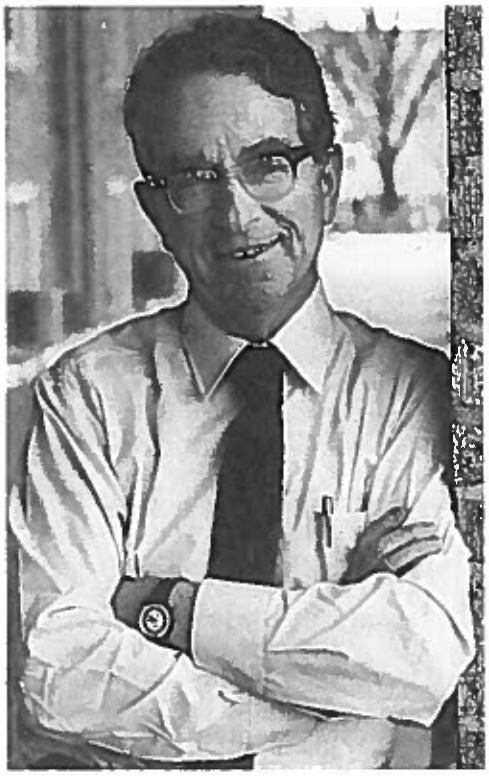
The International Chemistry Olympiad is a very impressive and important event in which the United States is performing very well. More to the point, we are building some extremely important advances toward promoting international cooperation and understanding.

)epartment Honored with Two Humboldt Senior U.S. Scientist Awards

Profs. Wilse Robinson and Henry hine were named Senior U.S. cientist Awardees by the Alexander on Humboldt Foundation, Germany. hese awards are the most restigious among the awards and ellowships given yearly by the oundation. The awards were begun 1 1972, in the Foundation's words, setting up, as an expression of ratitude to the United States of merica for the reconstruction aid iven after World War II, a program nder which highly qualified merican Scientists would be onored for internationally ecognized accomplishments in esearch and teaching, by the ranting of a German award, namely he Humboldt Award." Awards are nade by nomination only; pplications cannot be made. Jomination comes from a German Jniversity on the basis of awareness f the nominee's contribution to his ield. Nominations are evaluated by rominent scientists in Germany and n the U.S. and then considered by a oundation committee. An awardee is nvited to spend a year at one (or nore) of the German Universities or Research Institutes, with all costs rovided by the Foundation. Most emarkable in the calibre of the award s that it imposes no formal duties or equirements on the awardees; they re free to do as they wish. Awardees re encouraged to travel, within easonability, for lectures at other German and European Universities, nd are even given the opportunity to ent a new BMW at an arranged low ate to make travel all the more easy. Although there are no formal equirements by the Foundation, ome awardees use the time for writing books or papers in the office rovided by their hosts. Others carry ut research in collaboration with a ost laboratory. A year is a long time to spend away from the research going on in one's home University, so many awardees spread their award over more than one year. Shine, for example, elected to take only 7 months in Germany, divided between the summers of 1986 and 1987.



Robinson



Shine

Robinson also elected to split his award period into several parts during 1986 and 1987. Contact with the Foundation does not cease at the end of an award. The Foundation recognizes its awardees further by making them eligible to receive in their home University, younger German, Feodor Lynen research fellows, for whom the Foundation will provide partial support. Every second year, too, the Foundation hosts a Symposium for former awardees in a selected region of the U.S. By coincidence the next Symposium, in September, 1987, will be in Austin.

Department Obtains Two High-Field NMR Spectrometers

At long last the Department has been able to replace its 15-year-old, tired and worn-out Varian-XL 100 megahertz NMR spectrometer with modern instruments. The fall semester saw the installation of IBM's 200 and 300 MHz models. The AF-200 is for routine ^{1}H and ^{13}C usage, while the AF-300 is for special ^{13}C work and for other, less-commonly used nuclei, such as phosphorus and nitrogen. The two instruments cost $350,000 and were purchased with a grant from the NSF (2/3) and matching funds (1/3) from TTU. The NSF grant was awarded in response to a proposal by several members of the faculty under the supervision of Dr. Robert Walkup. Already, after about two-months of usage (at the time of writing) we wonder how we ever managed without these instruments. Their acquisition points up one of the more severe problems the Department has to live with continually, namely the shortage of funds for sophisticated instruments and their maintenance.

News of Alums

Dr. David A. Babb (B.S., '82; Ph.D., '85, Dr. Bartsch) is a Senior Research Chemist with Dow Chemical USA, Freeport, TX.

Dr. Michael S. Citak, M.D. (B.A. '82) graduated from Vanderbilt University, School of Medicine in May, 1986, and began a residency in general surgery, at the University of Louisville, July 1, 1986. Dr. Citak spent six weeks in Nigeria in the Summer, 1985, doing surgery in a mission hospital. His long-term plan is to return to Africa sometime in the future.

Dr. Alan P. Croft (B.S. '79; Ph.D. '83, Dr. Bartsch) is a Senior Research Chemist with Dow Chemical USA, Freeport, TX.

Dr. David Ewalt, M.D. (B.A. '80) is now in general surgery residency at Parkland Hospital, Dallas.

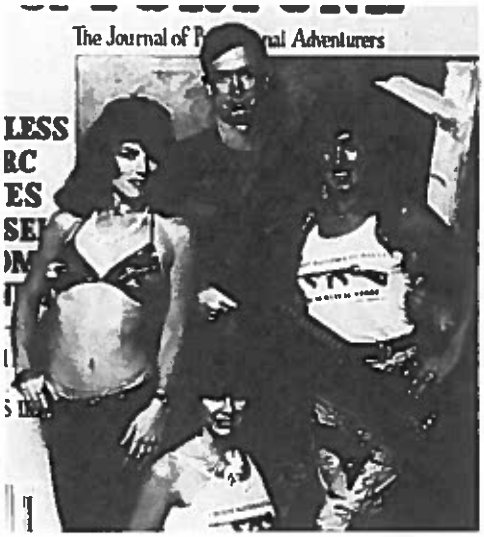
Ronnie Foster (B.S. '65; M.S. '66, Dr. Richard Thompson) celebrated his 20th service anniversary with Rohm and Haas, Texas, Inc., in Deer Park. He is currently the Quality Assurance Manager for the plant, which specializes in acrylic and methacrylic monomers.

David Hering (B.S. '84) is a sales representative with Fisher Scientific, Dallas.

Dr. Yen Long (Vincent) Hong (Ph.D., '82, Dr. Marx) sends greetings from the National Sun Yat-sen University, Taiwan, where he is an assistant professor. He is, there, also co-editor of the University's beautiful illustrated brochure.

Ewell Kenneth Jacks (B.S. Zoology, '54; B.S., Chemistry, '59) retired in 1983 from El Paso Products Co., a subsidiary of The El Paso Co., after 25 years of service, and is residing in Odessa.

Ken Gordon Jacks (B.S. '76) has been employed since 1980 as a research scientist in the Department of Petroleum Chemistry Research, Engine Fuels and Lubricants Section, Southwest Research Institute, San Antonio. Jacks is married to the former Rhonda Faye Hooper of Halfway, a graduate of Wayland Baptist College (now University), Plainview. The Jacks have a son, Kevin Michael. Perceptive readers will guess correctly that Kevin Michael is also grandson to Ewell Kenneth Jacks. More perceptive readers will note that both father (EK) and son (KG) Jacks were at Tech during the time of ye olde Editor of this Newsletter.



Intrepid warrior guards the frontiers. Capt. Gerald Walzell shows what can be achieved with an M.S. in chemistry.

Dr. Randy Johnston (B.S. '80; Ph.D. '84, Dr. Holwerda) continues as a postdoc at the Naval Research Labs, Betheseda, where he is studying ogranometallic CO_2 insertion reactions. Randy was in Lubbock recently and visited old friends in the Department.

Hossein Karimi (B.A. '53; M.S. '62, Dr. Draper) came by the Department on September 2, 1986. That was the day before this editor returned from Germany. Sorry to have missed you by one day, Hossein.

Dr. Don Kyle (Ph.D. '86, Dr. Marx) is working with Nova Pharmaceutical, Baltimore.

Dr. Ron Erickson (Ph.D. '83, Dr. Marx) is also with Nova.

Dr. Yung Liu (Ph.D. '83, Dr. Bartsch) has joined the Lubbock plant of TI as a research and development engineer.

Greg Maddux (B.A. '78) and **Susan Harris Maddux** (B.S., Nutrition '79) now live in Garland, TX. Greg is Chief Corrosion Engineer with Sun Exploration, and Susan is developing a private practice in dietetics. Their son, Clayton Nicholas, was born on November 3, 1985.

Dr. Gevork Minaskanian (Ph.D. '79, Dr. Marx) is a Senior Scientist with Nelson Research, Irvine, CA. Gevork visited the Department and gave a talk on his work, this Spring.

Dr. Michael J. Pugia (Ph.D. '86, Dr. Bartsch) has accepted a position with Miles Laboratories, Evanston, IN.

Dr. Robert D. Reeves (B.A., '64) has responded to our inquiry in last year's Newsletter. Reeves obtained an M.S. (Tech, 1965) and Ph.D. (Iowa State, 1971) in Foods and Nutrition. He ther joined the VA Medical Center in Little Rock, Ark., eventually becoming Director of the Renal Metabolic Lab., and Assistant Professor in the Departments of Biochemistry and Medicine of the University of Arkansas for Medical Sciences. Reeves joined Kansas State University in 1977 as Associate Professor of Nutrition and became full professor in 1986. At KState he teaches nutrition, and carries out research in metabolic effects of dietary fiber on lipid and carbohydrate metabolism, and on nutritional factors regulating somatomedin, a mediator of growth hormone. Dr. Reeves and wife Sue have two sons, Alan, age 16, and Sherman, age 13, and live at 3208 Gary, Manhattan, Kansas.

David Siller (M.S. '79, Dr. Bartsch) is the Technical Regional salesman for the Southeastern U.S. region of Kenrich Petrochemicals, Inc.

Dr. Byunki Son (Ph.D. '84, Dr. Bartsch) has completed postdoctoral research at Ohio State University, an has returned to Korea where he hold a position with the Lucky Co.

Dr. Ibrahim Yilmaz (Ph.D. '80, Dr. Bartsch) is on leave from his position at Bogazici University, Istanbul, and has returned to Texas Tech to do research with Dr. Shine.

In Memoriam

Charles Stiefvater (B.S. '80) died shortly after Christmas, 1985. Charles was a graduate student at the University of Nebraska, Lincoln, at the time of his death. His famiy has established the Charles A. Stiefvater Memorial Lectureship fund through the University of Nebraska Foundation. The first lecture is planned for the Spring, 1987. Contributions can be sent to the University of Nebraska.

Dr. Gregory Kuykendall (Ph.D. '76, Dr. Mills) died suddenly on February 2, 1986 of complications related to diabetes. He had worked with Anderson-Clayton and was with Shearson-Lehman at the time of his death. A fund in Greg's name has been established at Tech, and donations are welcomed.

New Research Grants

Dr. Dan Armstrong

National Institutes of Health: "Chiral and Isomeric Discrimination with Cyclodectrins", April 1986 to April 1989; 3 years, $250,000.

Dow Chemical Company: "Polymer Separation and Analysis", April 1987 to April 1988; $10,000.

Dr. Sandy Dasgupta

Dow Chemical Co. "Membrane-differentiated Gas-phase Flow-injection Analysis". February, 1986-January, 1987; $33,600.

Shell Oil Co.: "Trace Determination of Water in High-purity Organic Solvents". October-December, 1986; $6,000.

EPA/Northrop Services: "Field Measurement of Background Levels of Formaldehyde and Hydrogen Peroxide". May-December, 1986; $39,500.

California Air Resources Board/ Environmental Monitoring Systems: "Los Angeles Carbonaceous Species Methods Study". August-December, 1986; $10,000.

USDOE: "Novel Approaches to Ionic Chromatography". November 1986-October 1987; $80,500.

Dr. Edward Quitevis

TTU/SORF (Institute for University Research, College of Arts and Sciences): "Picosecond Stimulated Raman Gain Spectroscopy of Electrode Surfaces." September, 1986-August, 1987; $3,100.

Dr. Wilse Robinson

NSF: "Role of Water and Other Solvents in Chemical Reactivity". September, 1986-April, 1988; $227,900.

Dr. Henry Shine

ACS/PRF: "Heavy-atom Kinetic Isotope Effects in Photochemical Reactions". September, 1986-August, 1988; $35,000.

NSF: "Reactions Induced by Cation Radicals". January, 1987-December, 1989; $300,000.

Dr. Pill-Soon Song

NIH: "Molecular Topography of Phytochrome". 1986-1987; $420,641.

NIH: "Aneural Photosensory Transduction in Stentor". 1986-1987; $316,430.

Dr. Robert Walkup

NIH Biomedical Research Grant Support Program at TTU: "Synthetic Approaches to Biologically-active Polycyclic Alkaloids via a Novel Aminopalladation-Aryl Coupling Reaction". April, 1986-March, 1987; $4,000.

Classnotes

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

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

Send us details:_____

_____

_____

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_____

Name_____

Class_____ College_____

Address (_____ New?)_____

_____

Where are you, alums?

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

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