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BADGER CHEMIST

A Newsletter from the Department of Chemistry—University of Wisconsin—Madison

Newsletter 29

December 1982

JOHN FERRY RETIRES

Still another distinguished member of the faculty joined the ranks of the retired when the spring semester came to a close. He is Canadian-born John Douglass Ferry who became Emeritus Professor of Chemistry after 37 years in the department.

During those years he has been respected by everyone for his depth and breadth of knowledge, his steady productivity in his chosen field of the chemistry of macromolecules, and his leadership qualities. Although not prone to enter readily into heated discussions, he is listened to with respect whenever he speaks.

Born in Dawson, Yukon Territory, on May 4, 1912, the son of a mining engineer working in the gold country, John was, of course, a U.S. citizen. It was inevitable that he ultimately entered Stanford University where his father, mother, and an aunt had graduated earlier. His senior thesis was supervised by George S. Parks who was interested in the physico-chemical properties of organic liquids, and of the glassy state. Although John planned to do grad work with Parks, the latter's colleague, colloid chemist James B. McBain, recommended him for a fellowship in London with W.J. Elford at the Natl. Institute for Medical Research. While there in '32-34, John found he could register for courses at U of London. He combined research on the ultrafiltration of proteins with courses at the university.

On returning to Stanford in '34, he found that the courses were acceptable toward a doctorate. He undertook research with Parks on the glass transition in polyisobutylene and received his PhD in '35. Since jobs were still scarce in this depression period, John took an opportunity to work with David Spence at the Hopkins Marine Station in Pacific Grove,

100 miles from the home campus at Palo Alto. Spence was a rubber chemist who, with George Oenslager, introduced accelerators into the vulcanization of rubber. Then retired in California, Spence continued independent research in rented

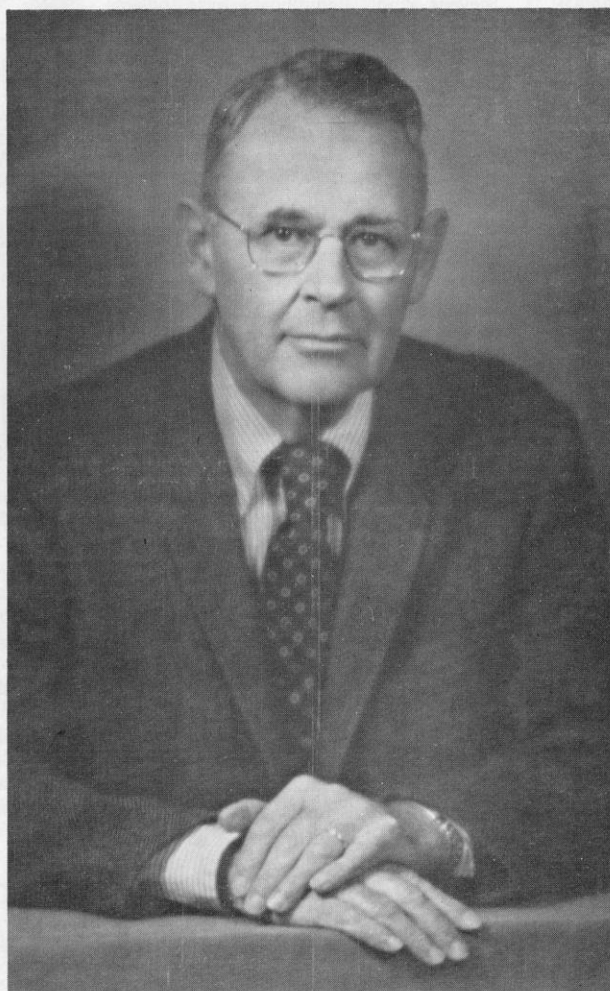
the Harvard faculty as a part-time Instructor in Biochemical Sciences, the program headed by John Edsall. In a short time Ferry also became associated with Edwin J. Cohn's laboratory in the medical school as a research associate. In '38 John was

appointed to Harvard's Society of Fellows, the society created out of the ideas of former President Lowell, in which young men of creative potential were supported for 3 years with complete freedom to pursue their own intellectual interests. During this period John was given space in Cohn's laboratory but was free to explore his growing interest in seeking an explanation of viscoelastic properties of high polymers.

As American involvement in World War II was approaching, Dr. Ferry became an associate chemist with a U.S. Navy project seeking to develop anti-fouling paints, which was based at the Woods Hole Oceanographic Institution. It was here that he met Barbara Mott, who would become Mrs. Ferry in 1944.

Although John retain an association with the Navy project until war's end, he was soon back at Cohn's laboratory as research associate on Cohn's program dealing with the fractionation of blood plasma and study of the characteristics of the isolated proteins. John was particularly interested in the fibrinogen fraction. In association with Badger Chemist, John L. Oncley, PhD '32, measurements were made of dielectric dispersion in protein

solutions. It was during this period that Ferry became acquainted with Prof. J. W. Williams of the UW. Since Williams' group had also been studying the physical chemistry of protein fractions, and since Oncley had taken his doctorate under Williams, there naturally was communi-



JOHN D. FERRY

kyerson Studio

space at the marine station with modest funding from B. F. Goodrich. Spence and Ferry explored cross-linking and molecular scission of natural rubber by various reagents, in a search for better understanding of vulcanization.

In '36 there was an opportunity to join

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BADGER CHEMIST

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OVERVIEW 1982

During the past year enrollment continues to break records (43,000 at Madison this fall), budgets remain uncomfortably tight, the political climate is uncertain as a general election approaches, the state's economy is unstable (but great compared to neighboring Michigan).

State of Wisconsin

Wisconsin politicians were shaken last spring when Governor Lee Dreyfus announced that he would not run for a second term because he was offered the presidency of Sentry Insurance Co. of Stevens Point. Republicans were shaken into action because they had simply assumed that the Dreyfus' red vest and personal charm would assure them the governorship for another four years,

despite the shaky condition of the state budget which had already caused the governor successfully to press the Democratic legislature to add 1% to the sales tax even though he had sought election in '78 on a promise not to increase taxes.

A contested Republican primary in September was won by Terry Kohler, a Sheboygan industrialist whose grandfather and father had been Wisconsin governors in '29-31 and '51-57 respectively. Three Democrats sought the nomination with Anthony Earl, a former assemblyman and Secretary of the Dept. of Administration, and then Secretary of the Dept. of Natural Resources, winning his party's nod. At the moment, voters are barraged with vigorous appeals for their votes. There are also strongly contested races for US Senate (the seat once held by Joe McCarthy and held steadily by Bill Proxmire since '57), 10 House seats, all seats in the State Assembly, and half of the State Senate. Predictions are guarded at the moment.

The September primary also carried a referendum question calling for a multi-lateral freeze on proliferation of nuclear weapons. The referendum was debated vigorously and led to a larger-than-normal voter turnout. The freeze was supported by a 3-1 margin.

The state's economy has unemployment somewhat above the national average, attributable particularly to the slowdown in heavy industry (especially auto assembly plants in Janesville and Kenosha) with resultant slowdown in those industries supplying parts. Milwaukee's breweries are also in a chaotic state and are deeply involved in merger moves. Schlitz was acquired by Stroh's in June for nearly one-half billion. BC 28 reported that Schlitz was acquired by G. Heileman of La Crosse but that merger was later voided on anti-trust grounds. Meantime, Pabst has sought to merge with Olympia while avoiding being taken over by Heileman. Only Miller, second only to Anhauser-Busch in production, appears to be on a sound base. Of course, Milwaukee production is no longer as strong as in the past since even Milwaukee-based companies have large breweries in other states.

City of Madison

Madison continues to have problems which are endemic with many communities which have reached a population of a quarter million within a few decades, from a level less than a third that size. Madison is still a nice place to live but it has lost much of the charm of a half century ago.

The community was badly shaken in recent months by two vicious murders: a 10-year-old schoolgirl was enticed into an

(Continued on page 7, col. 1)

THE EDITOR SPEAKS

Continue Help!

The Editor was able to pay the printing bill last year without a plea to the faculty for a bailout — the usual down-on-knees appeal which, over the years, has kept him out of debtors' prison. Please continue your generosity (or sympathy) for another year so that we can get this one paid for and plan for another. All contributions to the noble cause are appreciated. Remember that the editor jumps for joy whenever a \$25 check is received! He is now too decrepit to click his heels but still manages for checks that are larger.

Endowment Fund Grows

As indicated a year ago, an endowment fund for *Badger Chemist* was started with the hope that eventually it might be built up to the point that income might become sufficient to support the cost of the annual issue of the newsletter without the annual plea (see above) for support from the alumni and faculty.

Response during the first year produced a "nest egg" of \$1300, mostly in \$100 contributions with a few company matches. Others pledged \$100 to be paid in \$25 annual installments.

The response to last year's editorial was particularly gratifying and has built the fund up to \$4800. One alumnus, Vernon Steinle, PhD '24, persuaded his pre-retirement employer, S. C. Johnson of Racine, to not merely match his own contribution,

but to contribute \$1000 as a sign of appreciation to the department for the excellent training of the Badger Chemists in their employ over the years. Patty Meloche also sent a generous check in Mel's memory.

We trust that others will feel motivated to help build up this fund to a goal of at least \$25,000, a sum believed about adequate to pay the annual printing bill and associated costs (which last year came to \$1885). However, remember to keep making your usual contributions to the operating fund since we plan not to use earnings from the endowment fund for operations until the fund is complete. Until then, earnings will be added to principal.

Warning — Last Year Report

Five years ago we decided, for the sake of obtaining a truly active mailing list, to drop names of Badger Chemists who have had no communication with us during that period. This policy was adopted, in large part, because the postal service no longer returns undelivered mail, nor do they notify us of address changes. Since chemists are highly mobile we are certain that many of our addresses are no longer correct and those copies are simply destroyed.

All communications from you are recorded on the back of your address card, with date. Hence, we have a good idea that your address is correct if we heard from you recently but we question addresses more than five years old. Please give us a note if you haven't been in touch recently.

A.J.I.

This 'n' That About Our Alumni

Ye Ed finds it increasingly difficult to keep things available when he needs them and to keep them in alphabetical order. Hence, forgive the appearance of two sets of This 'N' That, each in approximately alphabetical order. If you fail to find a particular name in this set, look in This 'n' That-2. It may be there.

Ryoichi Akaba, PD '79-81 with Nelsen, is now in a postdoctoral position with M. Fox at U of Texas at Austin and enjoys being father of a new daughter. In June he participated in the Gordon Conference on Radical Ions, along with **Luis Echegoyen**, PD '74-75.

Donald P. Ames, BS '44, PhD '50, is currently Vice President at McDonnell Douglas Research Laboratories. In 1978, he received an LLD from the University of Missouri-St. Louis.

One of the "Lost Ones," **J. N. (Newt) Ashworth**, PhD '48, has been found in Berkeley at the Cutter Laboratories where he is Vice President, Scientific Affairs, Biological Products. He credits his being found to **Fred Schremp**, PhD '48 of Fullerton, CA. Newt credits the origin of his work (40 yrs.) on products processed from human plasma to meeting our Jack Williams at Harvard Med in 1942. The work there, which pioneered the process of plasma protein fractionation, also brought him in contact with John Ferry under whom Newt did grad work at the UW.

Robert C. Atkins, PhD '70, is associate professor (organic) at James Madison University in Hattiesburg, VA.

Paul R. Austin, BS '27, at U of Delaware reports the publication of an invited paper on Chitin in *Science*. The coauthor of this paper is **John E. Castle**, PhD '44.

Gilbert H. Ayres, PhD '30, who is Professor Emeritus at Texas-Austin, writes that he enjoys retirement.

Norbert S. Baer, MS '62, sends information on the conference on Conservation of Historic Stone Buildings and Monuments. He served as chairman of the steering committee and reports that a book containing the papers is being published by National Academy of Sciences Press. Norbert is Professor and Co-chairman of the Conservation Center of the Institute of Fine Arts, New York University.

Jean Nau Baernstein, BS '47, continues teaching second grade in Upland, CA. She and Dorothy Gosting, widow of **Louis Gosting**, PhD '48, had a two week trip up the California coast, through the wine country and Yosemite. Jean and Dottie were college friends.

George C. Bailey, BA '09, MA '14,

(PhD '16 Yale), reports getting along fairly well. George must be one of our earliest living alumni. We'd enjoy hearing from others of that era. Ed.

Marcia Fisher Bailey, PhD '65, is teaching at Central Michigan U and doing crystal structures. **Bob**, PhD '65, is a group leader in Environmental Science Research at Dow.

Merton D. Baird, PhD '69, keeps busy with teaching and research at Shippensburg State College, PA.

Clayton L. Baldwin Jr., MA '40, reports a pleasant two weeks in Hawaii, including a meeting with his Cornell roommate. The Baldwins continue to live in Corona, CA where Clayton is retired from Sunkist.

Robert L. "Buzz" Baldwin, BA '50 (PhD '54 Oxford), reported deep interest in the last issue with Dr. Meloche's life story and Joe Hirschfelder's retirement. Buzz gave a macromolecules seminar at the UW on April 4. His subject, "Prediction of Protein Structures and the Mechanism of Protein Folding."

Richard J. Baltisberger, PhD '63 (Ed King), is professor of chemistry at the University of North Dakota, Grand Forks.

Linda and Richard Bateman, PhD, both '69, are both with Polymer Products Dept. of du Pont in Wilmington. They report having two children.

Fred Baudais, PhD '78, is at the U of Guelph teaching analytical chemistry and doing research in surface science and gas phase photoelectron spectroscopy.

Jean Stern Baum, BS '47, of Ixonia, WI keeps busy showing horses all over the country. Two of her children are vets, the third is in aeronautics.

Lyman A. Beeman, BS '18, continues to be a super supporter of *Badger Chemist*. He reports success with a new method for pulping wood.

Mary Leutzow Bernard, BA '49, of Aurora, IL saw the closure of the high school where she had been teaching but has transferred to another. She also welcomed her first grandson.

Steven H. Bertz, BS '73, presented a seminar at the UW last April in "Chemical Consequences of Molecular Complexity." After doing a senior thesis under Prof. Casey, Steve earned his PhD at Harvard under Robert Woodward. He is now at Bell Labs.

Robert W. Bickes, PhD '70, reports that he is still at Sandia National Laboratory. He recently transferred from the Intense Neutron Generator for Cancer Therapy Project to an investigation of hot wire ignition of secondary explosives.

Robert Byron Bird, PhD '50, has been awarded the first 5-year John D. McArthur Professorship of Chemical Engineering. On the UW faculty since '52, he has held a Vilas Professorship for the past decade and will continue to do so in the future.

Rodney E. Black, PhD '42 with Holt, retired from his position at U of Kentucky in '81 after 30 years there.

William B. Blanchard, BS '67 (MS '72 Purdue), at Process Research and Development at Eli Lilly informs us that there are many other Badger Chemists there: **Richard T. Rapala**, PhD '49 (Johnson), **Martha C. Stamper**, PhD '52 (Adkins), **Ian G. Wright**, PhD '65 (van Tamelen), **Mary K. Peters**, BS '73 (PhD '77 MIT), **William C. Vladuchick**, PhD '78 (Trost), **David L. Varie**, MS '81 (Vedejs), **Preston C. Conrad**, PD '80-81 (Vedejs), **R. M. Schweitzer**, MS Chem E '78.

Toby F. Block, PhD '76 (Fenske), sends news from Georgia Tech in Atlanta where she is the lab manager for the general chemistry laboratory program. She and her husband Jerrold Greenberg (PD molecular biology) are the proud parents of a son, Mark.

Clyde H. Bloedorn, BS '28, added some fuel to the BC fire. He sends no news from Flat Rock, NC.

Susan Boettger, BS '74 (PhD '79 Cornell), writes from Syracuse where she is now a research chemist in the Industrial Division of Bristol-Myers. She is involved with development work on beta-lactam antibiotics. She hopes the Badger football

(Continued on page 7, col. 3)

50-YEAR MEMBERS, ACS

CEN for June 7, '82 carries the names of the following Badgers who have been members of the Society for a half century. If we have missed anyone, please scream.

Bertie L. Browning, PhD '28, Appleton, WI

Waldemar Dasler, BS '32 (PhD '38, Biochem), Chicago, IL

John D. Ferry, Madison, WI

E. Leon Foreman, PhD '40, Hemet, CA
Frederick F. Morehead, MS '51, PhD '53, West Chester, PA

Charles R. Naeser, BS '31, Falls Church, VA

Earl W. Scott Sr., BS '17, Southern Pines, NC (deceased 4/3/78)

Henry M. Stark, PhD '29, Salem, UT

Frank M. Strong, PhD '32, Madison, WI

Clarence H. Winning, BA '27, PhD '32, Wenonah, NJ

FERRY RETIRES

(Continued from page 1)

cation between the Harvard and Wisconsin workers.

When the war came to an end in August, 1945, universities began to plan for post-war expansion. John Ferry received and accepted an offer of an assistant professorship at Wisconsin. He joined the faculty in January '46, quickly sunk roots into the community, and developed his own program on the physico-chemical characteristics of high polymers. His promotion to associate professor came in June '46, to full professor a year later. He succeeded Farrington Daniels as chairman of the department in '59 and continued in that position for 8 years, while keeping his research program active. From '73 until retirement he has been Farrington Daniels Research Professor.

Research on Viscoelasticity

John Ferry's research, from the beginnings at Stanford, has had the goal of obtaining a more precise understanding of the behavior of polymeric materials, whether they be rubbery or glassy, and ranging from natural polymers such as rubber to purely synthetic polymers, and including such macromolecules as proteins and nucleic acids. When polymers are exposed to oscillating distortions, the oscillation energy is partially stored and partially dissipated as heat. Behavior is related to frequency of oscillation as well as to temperature, pressure, concentration, etc. The research has sought to relate modes of molecular motion to mechanical and other physical properties.

For more than three decades his laboratory at Wisconsin has seen a steady flow of talented graduate students who have gone on to make significant contributions in industrial and educational circles. His research group has generally included visitors beyond the doctoral level for both short and long periods and included numerous students and associates from 20 different countries.

Anyone interested in pursuing Ferry's work in greater detail is referred to the following publications:

A paper by JDF in *Contemporary Topics in Polymer Science*, vol. 1, *Macromolecular Science, Retrospect and Prospect*, R.D. Ulrich, ed., Plenum Publ. Corp., New York, 1978, pp. 63-68.

J. D. Ferry, "Probing Macromolecular Motions through Viscoelasticity," *Rubber Chem. and Technology*, **54**, G72-82 (1981) (The Goodyear Medal address.)

A biographical piece in *Modern Scientists and Engineers*, McGraw-Hill, New York, 1980, vol. 1, pp. 367-8.

Awards and Honors

John Ferry's work has led to international recognition and to numerous awards. In '46 he received the ACS Award in Biological Chemistry, sponsored by the Eli Lilly Co. The Bingham Medal of the Society of Rheology followed in '53; the ACS Award in Colloid Chemistry (The Kendall Co.) in '60; the High Polymer Physics Prize of the American Physical Society in '66.

In 1959 John was elected to the National Academy of Science and in 1968 he was Honorary President of the 5th International Congress on Rheology, held in Kyoto, Japan. In '72 he was named Honorary Member of the *Groupe Francais de Rheologie*. He also served as chairman of the ACS Division of Colloid Chemistry in '55.

More recent awards include: Colwin Medal, Institution of the Rubber Industry (UK) '72; ACS Award in Polymer Chemistry (Witco Chem. Corp.); Technical Award, International Institute of Synthetic Rubber Producers, '77; and the Charles Goodyear Medal, Rubber Division (ACS), '81.

John has also held visiting appointments in institutions in Brussels, Strasbourg, London, Grenoble, Kyoto, as well as in the U.S.

He has been President of the Society of Rheology ('61-63), Chairman of the International Committee on Rheology ('63-68), consultant to NSF and Harvard, joint editor of *Advances in Polymer Science*, as well as serving on editorial boards of 5 journals and on advisory panels of at least 5 government agencies.

His book, *Viscoelastic Properties of Polymers*, Wiley-1961, has had new editions in '70 and '80.

Chairmanship

In 1959 John responded to his colleagues' favorable recommendation to Dean Ingraham that he succeed Prof. Daniels as chairman of the chemistry department. He held the post for eight years, the fourth longest chairmanship in the department's century-old history. His resignation resulted, not from dissatisfaction in the department, but from John's wish to spend more time on his research program and his teaching. He was succeeded by Irving Shain, now Chancellor.

The Ferry chairmanship was one of massive changes in the department. The University was growing rapidly. Although the new Research Unit (Mathews Bldg.) was planned and started during the Daniels' chairmanship, it was completed during Ferry's chairmanship. The Tower Unit (Daniels Bldg.) was planned and largely built in the Ferry period. The combined units brought a scattered department together once more. Particularly important, the new facilities provided three large lecture rooms serviced by a prep

room with direct access to all three. There were well-planned undergrad labs, plenty of discussion section rooms, and TA rooms in which students could be met in semi-private conditions — a contrast with room 151 (the Bull Pen) in the former Chemistry Building.

Planning for research facilities was also done in a thoughtful manner, with extensive consideration for instruments and for the instrument makers and the glassblower.

The faculty grew steadily during this period. Thirty new appointments were made. Four (Zimmerman, Bernstein, Emery Fisher, and Kotch) came with tenure. Of the remaining 24, fourteen are presently active members of the faculty. Of those appointed during the Ferry chairmanship, 10 who reached tenure were later lost — one by death (Fisher), the remainder to attractive offers elsewhere. During the period, six members of the earlier tenured faculty were lost — two to retirement (Klein and McElvain); those who went elsewhere were van Tamelen, King, Margrave, and Alberty. The department's success in retaining talented faculty during the period was generally good, considering the period as one of nearly reckless expansion of college faculties and considering that the UW faculty has traditionally been subject to raiding by prestige institutions. The chem department had been successful in resisting such raids of tenured professors until Johnson was lost at the end of the Daniels' chairmanship.

Seen in retrospect 15 years later, the Ferry chairmanship is seen as one of rapid but stable expansion in facilities and faculty. John deserves a great deal of credit for this. His reserved but thoughtful management served as a model for his successors.

Personal and Family

As noted above, John married Barbara Mott in 1944. She was a graduate of Radcliff College, with a chemistry major as a student of Harvard's Gregory Baxter. At the time she and John met she was analytical chemist on the Navy's anti-fouling paint project at Woods Hole.

The Ferry's have two children, Phyllis and John Mott. Phyllis attended the UW and is now a geologist in Denver. The junior John is a graduate of Stanford with a PhD in geology from Harvard. He is currently associate professor of geology at Arizona State U in Tempe.

Barbara Ferry did not pursue her chemistry after marriage but turned seriously to an alternative and early interest — art. She has done notable work in both sculpture and painting since settling in Madison as well as playing a leading role in the Madison art community.

Future Plans

The Ferry's plan to remain in Madison
(Continued on page 5, col. 1)

ABOUT THE FACULTY...

Arthur B. Ellis reported at the Las Vegas ACS meeting the development of a photoelectrochemical semiconductor which emits light in varying colors in the presence of a photocurrent. In the research in his laboratory, his group is searching for better understanding of the processes taking place when semiconductors are exposed to light. Their work was done with a crystal having a surface made up of pure CdS with pure CdSe at a depth of 2 micrometers. See CEN (4-26-82) p. 23 for greater detail.

Fleming Crim was an invited speaker at two Gordon Conferences, one on Molecular Energy Transfer and another on Dynamics of Molecular Collisions. He was also a speaker at the Berlin Conference on 50 Years of Dynamics of Chemical Reactions. Professor **Hirschfelder's** work figured prominently at the latter meeting. Fleming has also given invited lectures at Johns Hopkins and Minnesota.

A surprise party recognized **Glen Dirreen**, PhD '72, for his continued contributions to the General Chemistry Program since 1972. Glen has been director of the freshman chemistry laboratory during these ten years.

Dennis H. Evans spent 10 weeks research leave at the Electrochem. Labs at the U of Southampton in fall '81. During the past year he presented lectures at the International Soc. of Electrochem. meeting in Dubrovnik, Yugoslavia; U of Ulster in N. Ireland; Queen's U of Belfast; and U of Minnesota. He reports that five of his students held a reunion in Waukegan last May. They were **Dennis Corrigan**, PhD '79 (at GM); **Paul Dekker**, MS '76

(Abbott) who was host; **Patrick Kinlen**, PhD '78 (Monsanto); **Richard Van Effen**, PhD '79 (Dow).

John D. Ferry gave invited lectures at the Society of Rheology meeting in Louisville in Oct. '81; at Northwestern last February, and was after dinner speaker at the Conference on Molecular Biology of Fibrinogen and Fibrin at the NY Academy of Sciences in June. In July he was co-chairman of the Gordon Conference on Polymer Physics. For other news, see "Ferry Retirement."

Joe Hirschfelder was hospitalized last spring for heart bypass surgery. He recently told the editor that he is now feeling great and has his old enthusiasm for theoretical chemistry problems. On Oct. 19 he left to spend the winter in Santa Barbara.

Did you notice that **Gretchen** and **Les Holt** were pictured on page 16 of the March/April *Wisconsin Alumnus*? They were part of a group of pictures taken at the Founders Day celebration. Emeritus Professor of Pharmacy, Louis Busse, PhD '40, was also included in the picture.

Aaron J. Ihde, PhD '41, was the wind-up speaker at the Tenth Peter A. Leermakers Symposium held at Wesleyan U last May. This symposium was not only the tenth such meeting but coincided with the 150th Anniversary of the founding of Wesleyan U in Middletown, CT. The annual symposium honors Peter A. Leermakers (1937-1971), a Wesleyan graduate who returned to the Wesleyan faculty after completing his doctorate with W. Doering at Yale. He died early in his career in an automobile accident. For a brief period he was associated with the department at Wisconsin. Theme of this year's symposium was "Intellectual Foundations of Modern Chemistry." The panel of speakers included: Linus Pauling, Gerhard Herzberg, E. Bright Wilson, Alexander R. Todd, Wm. N. Lipscomb, Jr., and F. Albert Cotton. Ihde's title was: "Reflections on the Intellectual Foundations of Modern Chemistry." He was introduced by **Albert J. Fry**, PhD '64, who is a member of the Wesleyan faculty. It was also a pleasure to review friendship with **Peter Whorton** who left the UW faculty in the late sixties to teach at Wesleyan.

Edwin M. Larsen continues his association with the nuclear engineers on campus. Last May his paper based on **Mark Ortmann's** thesis at the National Meeting of the American Ceramic Society in Cincinnati was selected as a candidate for the Nuclear Division's best paper award. The selection has not been announced at this date, but being selected for candidacy is according to Dr. Larsen "a tribute to Mark's hard work and diligence on a dif-

ficult problem. Most chemists feel that inorganic lithium chemistry surely must be all cut and dried, but working at 1711 degrees Calvin is difficult with any system." Dr. Larsen continues to serve as associate chairman of the chemistry department under **Phil Certain**.

Stephen F. Nelsen attended the 3rd Int. Symposium on Free Radicals in Freiburg in September '81, lectured at a symposium on electrochem. in Minneapolis (5/81), on Conformational Analysis at Durham, NH (6/81), as well as giving invited lectures at several midwestern universities.

Marion O'Leary spends much of his research effort on the borderline area between biochem. and plant physiology examining carbon isotope fractionations in enzymes and in whole plants. He has been in collaboration with investigators in the Australian Natl. U, Canberra. He was an invited lecturer at the 13th International Botanical Congress in Sydney (8/81). During the present semester he is in Australia, on a Guggenheim Fellowship, as a Visiting Fellow in Environmental Biology and Physics. His wife, **Betsy Kean**, PhD '74, is a visitor in the School of General Studies at ANU where she is finishing a book and working on computer programs for chemical education. They will spend January '83 at U of Bogor in Indonesia as senior science advisors. U of Bogor and UW have had a long-standing exchange program. How many Badger Chemists saw his picture at the piano in the May/June *Wis. Alumnus*? His piano playing approaches concert standards and he frequently plays with chamber music groups.

Hans J. Reich was organizer of the "Organoselenium Chemistry and Synthesis Symposium" held at the Las Vegas ACS meeting. He was also a speaker at the symposium as well as giving seminars at Ohio State, Illinois, and the Lederle Laboratories. He taught a portion of the ACS course on "Frontiers in Organic Chemistry" organized by **Barry Trost** and held in Madison. Other speakers in that short course were **Charles Casey**, **Danishesky**, **Houk**, **Dudley Williams**, and **Bergman**.

(Continued on page 6, col. 1)

Ferry

(Continued from page 4)

where Barbara will continue her activities in the field of art. John plans to continue his research with the assistance of several post-doctoral fellows.

Biographical Pieces

In addition to the literature recommended above, we call attention to two more strictly biographical papers.

J. L. Schrag, "John D. Ferry, Charles Goodyear Medalist-1981" in *Rubber Chem. Tech.*, 54, G72-75 (1981). These are the presentation remarks made at the Goodyear Medal dinner by onetime post-doc and present faculty colleague, John Schrag.

Robert F. Landel, "Professor John D. Ferry," *J. Polymer Science, Physics*, in press. Landel, PhD '54, is Section Manager, Materials Res. and Biotechnology in the Jet Propulsion Laboratory, Cal-tech.

The Greek Tragedy — Act IV

Last year's review reported that the Board of Regents voted on Sept. 11, 1981 that Prof. Walter Blaedel should retire on October 1, 1981. Walt requested permission to continue use of his office and laboratory until Dec. 31, 1981 in order to complete experiments and writing then in progress. This was denied by the department. The locks on Blaedel's facilities were then changed and access could be had only through L&S Dean E.D. Cronon.

Faculty...

(Continued from page 5)

Bassam Shakhshiri continues to be in heavy demand as speaker and demonstrator in connection with chemical education programs. His final lecture in Chem 104 received a feature review in the Dec. 12, '81 *Capital Times*. Besides his regular students, guests included students from grades 1, 2 and 3 from Van Hise School, and assistants included Santa Clause, Bucky Badger, and Mayor Joel Skornica. Bassam was featured in the review as The Wizard. He was cited in April by the Wisconsin Society of Science Teachers for his outstanding contributions to chemical education at the local, state, and national level. The award presentation was made at the Convention of the Wisconsin Society of Science Teachers when they met in Madison.

The *Wis. State Journal* recently carried a report on **C. Harvey Sorum**, '82, and his tennis activities. He not only plays daily with Emma Lou, his wife, but participates in tournaments for players in his age group. Since 1979 he has participated in the tournament in Charlottesville, NC where he has won a consolation trophy and received national ranking (17th in '79, 16th in '80). Harvey began to play when he was a grad student in '24. He not only taught himself to play a strong game but later coached many others, including his children, Jean and Paul, and his wife. Jean became a nationally ranked junior player and is now the top ranked woman in the 35-year division of the Missouri Valley Tennis Assn. Besides tennis Harvey, who was a favorite chemistry teacher to four decades of Badger Chemists, keeps a hand in chemistry. A year ago the 6th edition of his widely used *How to Solve General Chemistry Problems*, was published with R.S. Boikess of Rutgers as a coauthor.

Barry Trost received the Leo H. Bakeland Award of the New Jersey ACS section in October '81. Speakers at the symposium associated with the award included Wm. S. Johnson (Stanford), L.A. Paquette (Ohio St.), and S. Danishefsky (Yale). In March '82, Barry was Royal Society Centenary Lecturer, with additional lectures at universities in Liverpool, Edinburgh, Sussex, Swansea, Sheffield, and Bath. Other symposia: 1st IUPAC Symposium on Organometallic Chem. directed toward Organic Syntheses (Fort Collins, CO); US-Japan Joint Seminar on Asymmetric Synthesis (Stanford, CT). Other lectures in US universities and industrial labs are too numerous to include. Also of importance was Barry's election to the American Academy of Arts and Sciences in May.

Worth Vaughan organized the 1982 version of the annual spring canoe trip on the Namakagan and St. Croix Rivers last June. Other Badger Chemists included Profs. **C. Dan Cornwell**, **Don Gaines**, and Bob Bird of Chem. Engr. Worth also received notice in the local news some time ago as one of about 30 life masters (in Bridge) in the Madison area.

John Willard, PhD '35, was busy during the pre-primary election period as a speaker supporting a "yes" vote on the nuclear freeze referendum. He also keeps busy in the chemistry field. Last winter he gave several ACS lectures on the Chisholm Circuit.

John Wright has written the chapter on "Lasers in Chemical Analysis" for the book *Lasers in Chemistry*, Theodore Evans, editor, which is being published by Wiley Interscience this fall. He has also been named co-chm. of the 1984 International Luminescence Conference, was an invited lecture at the Europhysics School Quantum Electronics held this past summer in San Miniato, Italy, and organized a colloquium for the Division of Chem. Ed. for their State of the Art Series; the colloquium is entitled: Counting Molecules—Approaching the Ultimate Limit.

Hyuk Yu went to France in June to work at the Commissariat a l' Energie Atomique with former research associate Michel Delsanti. Later in June he lectured at a NATO Advanced Study Inst. in Maratea, Italy on "The Application of Laser Light Scattering to the Study of Biological Motions." At the end of July he was in Korea to consult at the Korean Advanced Science and Technology Institute, a trip arranged by his former research associate, Dr. Chung Yup Kim.

Howard Zimmerman was in Japan last fall under a Japanese Soc. for Promotion of Science Fellowship for a series of lectures which included, as well, the main lecture at the Annual Japanese Symposium on Photochem (Soppero) and a plenary lecture at the Ann. Symposium on Synthetic Organic Chem. (Kyoto). In summer he gave a plenary lecture at the Canadian Inst. of Chem. meeting in Toronto, and a series of lectures in Germany at Giessen, Marburg, and Frankfurt. While in Europe he also attended the IUPAC Symposium on Photochemistry in Paris, France. Howard is now included in Garfield's Institute of Scientific Information List of 1000 Most Cited (scientific) Authors. The list only includes 49 organic chemists internationally. Three of his foreign post-docs have completed two years in his lab and have returned home: Pedro Campos to Oviedo, Spain; Jian-Hua Xu to Nanjing; and G-sheng Wu to Shanghai.

INTRODUCING: PAUL F. SCHATZ, EDITOR DESIGNATE

Those who read mastheads conscientiously will notice a new name — that of Paul F. Schatz who will take over the editorship after the 1983 issue (No. 30) has been published. In the meantime, he is serving as associate editor, writing part of the copy, learning the various responsibilities of editorship, and participating in decision making. This should lead to smooth transition when the present editor steps down in '83.

Paul knows the modern Wisconsin scene very well. He came to Madison as a graduate student in organic chemistry in 1966. When he completed his doctorate in 1971 he remained on the instructional staff of the chemistry department as Director of the Organic Laboratories.

This position, which is the equivalent of the Directorships held by Glen Dirreen, PhD '72, for general, Bob Lavine for quant, and Ed Turner for physical, carries responsibilities for the smooth operation of the division's undergraduate courses, particularly the laboratories.

As Director of Organic Labs, Paul trains grad students for teaching in the organic lab courses — topics covered, safety practices, lab techniques, experimental details, evaluation of student performance; instructs students in use of instruments (nmr spectrometers, I-R spectrometers, UV-Visual spectrometers, gas chromatographs); administration — assign grades in collaboration with TAs and faculty, purchase chemicals, instruments, and other supplies; supervision of stockrooms; maintenance of instruments; develop new experiments.

These duties were customarily carried by members of the professional staff, in particular by Mike Klein. Expansion of the student body and faculty makes the old system impractical and, when Prof. Shain became chairman of the department in 1967 he brought in Bob Lavine to direct the quant labs. The practice has since been extended to the other divisions.

Paul was born in Cincinnati on August 24, 1944. He received the BA from Colgate U in '66, with honors including the Phi Society and the Lawrence Chemistry Prize. In his grad work with Howard W. Whitlock, PhD '61, he studied "Reductive Alkylation and its Use in the Synthesis of Polycyclic benzenes." The results were published by Whitlock and Schatz in *JACS*, **93**, 3837 (1971). Paul has also published a number of papers dealing with problems in chemical education and has given numerous lectures and demonstrations to chemistry education groups. He was an organizer of the 1980 symposium,

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Overview

(Continued from page 2)

apartment on her way home from school, assaulted, and strangled; a UW coed was murdered in the Stadium area around midnight while walking from a bus stop to her apartment after having served as a waitress in a State Street restaurant. The murderer of the child is serving a long prison term; there are not even any clues of the other murderer.

One positive item. The Dangle Lounge will close its doors shortly after the end of the football season. The two brothers who have operated the Dangle on Main Street, a half block from Capitol Square, since 1968 have entered into an agreement with the city to end nude entertainment while the city drops its pursuit of a legally invincible ordinance against such entertainment. The owners justify their operation on the grounds that: (1) the public is entitled access to adult entertainment, and (2) it provided a college education for numerous coeds who were merely willing to strip in public.

The Board of Education continues to close public schools in the light of decreasing enrollments while parents continue to protest the closing of neighborhood schools which then results in extensive busing of their children.

University of Wisconsin System

The System has been suffering badly for several years as the target of economics forced on the System after state budgets have been set by the legislature and governor. In more than one year, state agencies, including the University, have been forced to cut expenditures by certain percentages in the middle of a budgetary

Schatz...

(Continued from page 6)

"Teaching Laboratory Techniques for Organic Chemistry — A Symposium in Honor of Louis Feiser" held at the ACS meeting in Houston.

Paul is married and has two children. His decade and a half of contact with the department, particularly his intimate contact with grad students and undergrads in organic, and his extensive involvement with modern ideas in teaching and research make him an ideal choice for the succession in the BC editorship. He is working with the present editor for two years before taking over full responsibility for No. 31 in 1984. He has the best wishes of the department in this endeavor.

period. In meeting such cuts, the University has been forced to eliminate certain activities in order to maintain funds for certain expenses which are fixed. The Library, for example, has suffered disproportionately compared to many other activities. The explosion of subscription rates for research journals has almost eliminated the purchase of newly published books. For example, look at the cost of *Chemical Abstracts* at the library rate.

Particular concern of administrators has been the steady deterioration of state support. This has led to yearly increases in tuition but this device is having the effect of pricing the university out of the reach of poor students, while straining the resources of all except the very affluent.

A recent study reveals that the UW System now receives 18% of the state's tax revenue, compared to 25% in 1973. The System's budget for teaching and support activities has become "underfunded" from 1973 levels by \$54.6 million, primarily because of inflation and forced budgetary savings. Budgeted cost per student has declined from \$1,902 in '72-'73 to \$1,659 in '81 (based on '72 dollars). Wisconsin was 6th among the states in state and local dollars spent in higher education in '72. In '81 it was 36th.

University of Wisconsin-Madison

The Madison administration is seriously worried about the Brain Drain going on when faculty stars are being attracted elsewhere by more affluent institutions seeking to build an instant reputation. As of last winter, 64 leading faculty members had left for more attractive offers elsewhere.

According to Chancellor Shain, the average outside offer being made to professors was \$17,000 higher than their UW salary.

A study released in late August '82 by the National Center for Education Statistics and published in the *Chronicle of Higher Education* revealed that: while the UW-Madison ranked among the top 10 public institutions in the country in academic reputation, and the top 10 in receiving research money, in professional salaries the UW ranked 10th.

Schools ranked in quality of academic reputation in 1st to 10th order were: Cal-Berkeley, Michigan, Wisconsin-Madison, Illinois, Cornell, Indiana, UCLA, Purdue, Ohio State and Texas. Among these, the top average salary of full profs. at Berkeley was \$42,800; the UW was ninth at \$35,500. Northwestern, a private university, paid its full profs an average salary of \$41,600. At lower ranks, UWM shows similarly low relative rankings.

This 'n That...

(Continued from page 3)

and hockey teams continue their winning ways.

Edward G. Bohlmann, BS '39, MS '41 (Willard), has retired from Oak Ridge National Laboratory after 37 years. He and June enjoy life in Lake Tansi Village near Crossville, TN.

David A. Brant, PhD '62 (Alberty), is chairman of the chemistry department at U of California-Irvine. He notes that their faculty includes two other Badger Chemists, **Robert Doedens**, PhD '65 (Dahl) and **Larry Overman**, PhD '69 (Whitlock). He sent us an attractive booklet describing chemistry at UC-Irvine.

Nila Bremer, MS '75, sends sweetener but says, "No news to report."

Robert Briody, PhD '64, of Corpus Christi, TX, sent a nice contribution but no news of his activities.

Laura Drescher Burg, departmental secretary in the thirties, had compliments for the pieces on Meloche and Hirschfelder in BC 28. She refused to believe that Mel died at 86 until she realized that she left the department 43 years ago. She sent us a clipping from the *Appleton Post-Crescent* showing inductees into the Wisconsin (Sports) Hall of Fame in Nov. '81. **Victor Reinders**, PhD '35, who was a faculty member at UW-Milwaukee before retirement was honored for his skills as a trapshooter. His fellow Hall of Famers included Bart Starr, present coach of the Green Bay Packers and star quarterback of the Packers during the Vince Lombardi glory days; Ray Nitschke, star linebacker on those same Packers and now coach of the Cincinnati Bengals; and Don Gehrmann, talented long distance runner for the Badgers around '50. Laura is the wife of Badger chemist **Cliff Burg**, BS '37.

Howard Burkett, PhD '42, and Lucille were Madison visitors in May '81. Howard was a participant in the De Pauw commencement when he escorted a former student who received an honorary degree.

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Department of Chemistry

The chemistry department has a new chairman. No new faculty members were added this year while two professors were lost — Ferry to retirement, Walters to St. Olaf College. Fleming Crim was promoted to associate professor. A number of faculty visitors are helping with the teaching again.

The number of entering grad students is down again this year.

CERTAIN BECOMES NEW CHAIRMAN

The departmental chairmanship passed from Barry Trost, chairman since July, 1980 to Phillip Certain, PhD '70, on August 15. Edwin M. Larsen continues as associate chairman. Phil had been chairman of the Physical Division since 1980 and Acting Director of the Theoretical Chemistry Institute since the retirement of Prof. Joseph Hirschfelder a year ago.

The recent changes arose out of a lucrative offer to Prof. Trost from University of California-Berkeley. Chancellor Shain reacted by persuading the Board of Regents to create a Vilas Research Professorship for Trost. Such professorships are funded, in part, by the estate of Wm. F. Vilas (1840-1908) and provide not only salary for the professor, but funds for support of his research program. Professor John Willard held a Vilas Professorship from 1963, when he resigned as Dean of the Graduate School, until his retirement in 1979.

Phillip Certain was born in Savannah, GA on September 21, 1943. He took 2 degrees at Emory University, BS '64, MS '65, before joining Prof. Hirschfelder for study in the department's Theoretical Chemistry Institute where his PhD was completed in '69. After spending a year at Manchester for postdoctoral work with Wm. Byers Brown, Phil returned to the UW as assistant professor of chemistry and member of TCI. Promotion to associate professor with tenure came in '76, a full professorship in '80. He is the fourth departmental alumnus to serve as chairman, his predecessors having been Louis Kahlenberg, BS '92, MS '93, J. Howard Mathews, BS '03, MA '05, and John Willard, PhD '35. Phil is the first Southerner

This 'n That...

(Continued from page 7)

Howard became Professor Emeritus after 36 years of teaching at his alma mater. All four children were home for the occasion.

John M. Buschek Jr., PhD '73, has returned to Edmonton, Alberta for a second postdoctoral with R. S. Brown.

Warren F. Busse, PhD '27, is active in the Academy of Lifelong Learning sponsored by the U of Delaware, participating both as teacher and student.

to hold the chairmanship and the first theoretician.

During a dozen years on the faculty Certain has carried heavy teaching and research responsibilities with distinction and has sunk roots deeply in the institution. His teaching has included the basic courses in physical chemistry, both lecture and lab, three turns with the freshman 103, as well as advanced courses in thermodynamics and quantum chemistry. His research has dealt with calculation of atomic resonance state energies, autoionizing resonance energies, and with the molecular quantum mechanics of the hydrogen molecule ion (H_2^+ and its isotopic variants). The work has resulted in more than 50 publications and has included the work of 10 candidates for MS and PhD degrees. His research has been aided by a number of grants including an Alfred P. Sloan Fellowship ('74-78), a Fulbright-Hays Fellowship and a Guggenheim Foundation Fellowship.

Phil is married and has three children. His wife Melinda has a Wisconsin PhD in mathematics and is a lecturer in the math department. The children are: Andrew, 11; Heather, 7; and Laura, 4.

James E. Carnahan, PhD '46, writes from du Pont Central Research that he is involved in the department of a group for basic research in neurobiology and will soon start a gerontology group. He confesses this to be a large step away from catalytic chemistry with Homer Adkins but finds it step-wise, logical, and exciting. Homer would probably agree. Ed.

R. Vincent Cash, PhD '74, writes in his Christmas note that he retired from Central Connecticut State College and has moved to sunny Florida. He was made Professor Emeritus and given a Distinguished Service Award by the College.

Chia-Chun Chang, MS '79 (Woods), is a grad student in analytical at Minnesota.

Walter E. Clark, PhD '49 (Holt), has retired from Oak Ridge National Laboratory and moved to Route 1, Stuart, VA.

Jennings E. Cline, PhD '76 (Dance), has now joined the Nuclear Division of Union Carbide at Oak Ridge after a postdoc with Professor John Corbett at Iowa State.

Ralph Connor, PhD '32, sent some fuel with the request to "keep clicking."

Kelsey D. Cook, PhD '78, is asst. prof. at U of Illinois-Urbana-Champaign.

David R. Cosper, PhD '69, reports he is now a research scientist in the Corporate Research Department of Nalco Chemical Co. in Chicago. His work in the past year is related to air pollution and water treatment.

Milford A. Cowley, PhD '33 with Schuette, liked the tribute to Mel in No. 28. "He was the last of the great professors whom I remember well from my years at the University."

Guido H. Daub, PhD '49, writes that after eleven years as Chairman of the Chemistry Department at U of New Mexico he is stepping down. He will continue teaching and doing research until his planned retirement in June '83. His eldest son, Bill, is in his fourth year on the faculty at Harvey Mudd College. His youngest son, John, was to finish his PhD with **Robert Ireland**, PhD '54 (Johnson), in '82 and then a postdoc with **Jerry Berson**, faculty '63-69. His daughter, Betsey, plans to reenter MIT to continue her work towards a PhD in biochemistry. Mrs. Daub is the former **Katherine Powell**, MA '48.

Jeffrey P. Davis, BS '68, PhD (Pharmacy '71) (MD Columbia '77), is a fellow in corneal surgery at Presbyterian Hosp., Pacific Medical Center, San Francisco. In his last contact with us he hoped to establish a practice in the Madison area. His letter had a strong endorsement for Prof. Bender who had been particularly helpful during his student years at the UW.

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Phil Certain and Melinda, Andrew 11, Heather 7, Laura 4

In Memoriam

We list below deaths which have come to our attention during the past year. Some have been picked up from CEN, *Science*, *Wisconsin Alumnus* and *The Hexagon*. We particularly appreciate notices sent in by survivors since we are able to include more information. Following recent precedent, we include not only bona fide Badger Chemists but persons associated with Wisconsin and known to numerous alumni.

Penrose Strong Albright, MS '29, PhD '36, died January 11, 1982 in Wichita, KS. He was a student of Prof. Williams. For 18 years he was on the chemistry faculty of Southwestern College, Winfield, and from '43-61 he was head of the physics department at Wichita State U. Two of his students took doctorates in chemistry at Wisconsin: the late Louis Gosting, '48, and son John G. Albright, '63, of Fort Worth, TX.

John Brice Allen, PhD '70, died in Wilmington, DE in 1977.

Albert S. Carter, PhD '27, of Fort Lauderdale, FL died on September 27, 1981. He took his degree with Richard Fischer. In 1963 he retired as research director of du Pont's Elastomer Chemicals Department. In 1940, while still a research chemist, he received the Modern Pioneers Award from the National Association of Manufacturers for his contributions to the production of Neoprene.

Robert B. Doremus, associate dean of the L&S College from 1950, died of cancer on August 1 at age 67. He joined the UW English department in 1940, fresh from a Harvard doctorate. Dean Ingraham selected him as associate dean and he served under four successors. His role, which involved problems associated with both teaching and research, brought him into contact with many of the science professors, particularly in connection with funding of research programs.

James B. Evans, MS '54, PhD '58 with Willard, was killed on Feb. 28, 1982 when the motorcycle he was riding was hit by a car. He was with the Rocky Flats Plutonium Division of Rockwell International near Boulder, CO at the time of his death but had taught earlier at U of Colorado. Jim will be remembered among his contemporaries as a practicing magician who once performed at a departmental Christmas party.

Harry L. Fevold, PhD '28 under Kahlenberg, died April 6, 1981. Since 1951 he held research and administration positions at Baxter-Travenol Labs., Morton Grove, IL. Previously, he had held biochemical positions at Harvard, the USDA Western Regional Lab (Berkeley), and the Quartermaster's Food and Container Institute.

He was involved in early separations of pituitary gonadatropic hormones and was the first to crystallize the egg-white protein, lysozyme.

William M. Fowler, BS '20, died on April 29, 1981. His education at the UW was interrupted by assignment to the Chemical Warfare Service where he was involved in the preparation of activated charcoal for gas masks. After graduation he soon became involved in the formation of Chicago Dietetic Supply which he served as president from 1924 until retirement in 1978. His wife, a dietician, was associated professionally with the corporation which was active in the development of low-calorie foods for diabetics before insulin became available. In later years the firm developed foods for persons suffering from allergies, low-sodium foods, and dietetic foods for other special conditions.

Ray C. Gralow, BS '34, died October 24, 1981 according to *The Hexagon*.

John T. Hale, BS '26, died July 2 at his home in Fort Lauderdale, FL of an apparent heart attack. He had been with du Pont for 38 years before retiring in 1967. He started his own dance band during his student days and later played with outstanding jazz bands in the Midwest before joining du Pont. In Wilmington he directed the Rhythm Doctors and was also active in the Wilmington Drama League and the Robin Hood Theater.

Lester A. Hansen, BS '28, PhD '34, died in Olympia, WA on February 12, 1981. He taught at Rensselaer Poly before becoming technical director at Behr-Manning Co. In 1963 he moved to Olympia where he served as chief of industrial hygiene for the Department of Labor and Industrial Hygiene until retirement in 1973. His widow, Vanessa, sent a check in his memory for the BC Endowment Fund since he "always enjoyed the *Badger Chemist*."

Margaret N. H'Doubler, who introduced the major in dance in the UW Phy. Ed. department in 1926 and was famous nationwide for her innovations in modern dance, died March 26, 1982 at age 92. Upon graduation from the UW in 1910 with a major in biology and chemistry she joined the women's Phy. Ed. faculty. In 1917, after grad work at Columbia, she returned to Wisconsin with a new theory of dance instruction which led to dance classes in the department and, a decade later, to a major. She received many honors during her career, including induction (1939) in the Dancer's Hall of Fame alongside such innovators as Ruth St. Denis, Martha Graham, and George Balanchine. She was a firm believer in a

chemistry requirement for phy. ed. majors and many former TAs in the freshman course will remember the dance majors in their sections as seldom blessed with profound chemical insights but never lacking in zest for life.

Ernest A. Hesse, BA '32, instructor in chemistry from 1942 until 1948, died in Portland, OR on October 2, 1980 of a coronary attack at age 82. Ernie became interested in chemistry while completing a major in history; he undertook grad work during the thirties but left without a degree to take a teaching position with **G. Brooks King**, PhD '31, at Washington State. In 1942, Professor Walton brought him back to Wisconsin when **John Willard**, PhD '35, took a leave to work on the Manhattan Project. Hesse spent the next six years in the department carrying heavy teaching responsibilities in freshman courses. He was a dedicated teacher who was not only available to students in his office but routinely provided voluntary review sessions before exams. His sections regularly showed the highest exam averages. However, he was temperamentally unable to face the discipline of graduate studies toward the doctorate and was released from the staff in 1948. He spent the next quarter century as a chemistry teacher at Multnomah College in Portland. His retirement years were spent in frequent travels between Alaska and Mexico.

Kathleen Hickson, BS '50, died in Superior, WI in February '82.

Frank C. Hildebrand, MS '33, is deceased according to *The Hexagon* of April 1982.

Tze-Ching Huang, BS '24, died last summer according to a note from Chancellor Shain. Huang was professor of chemistry at Beijing U (Peking) for many years after completing his PhD at MIT. He was at Wisconsin in the early twenties when nearly a dozen Chinese students took degrees here. Dr. Huang did his senior thesis under Farrington Daniels.

Marvin J. Johnson, 75, died October 1. He was a member of the UW biochemistry faculty from 1940 to the time of retirement as professor emeritus. Born in Superior, WI, he took degrees as a student of Prof. Wm. E. Peterson. Following a year at NRC fellow in Prague he returned to Wisconsin as a Research Associate in '33. In '40 he was made a member of the departmental faculty. He was a leader in development of fermentation methods and had an important role in the improvement of submerged culture methods for production of penicillin during World War II. The Marvin J. Johnson Professorship in the Biochemistry Dept. is held by Wm. W. Cleland.

John Arthur Keenan, BA '30, (PhD Biochem '34), of Fort Madison, IA, died

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In Memoriam

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in March '82. He was retired from the presidency of Speidel, a Textron company. Art was a member of the varsity crew in '28-30 and in '57-58 served as president of the Wisconsin Alumni Association.

Kathryn Korting Noland, BS cum laude '74, died November 16, 1981 of a heart attack during surgery in Memphis, TN. Following receipt of her chemistry degree she was a Knapp Fellow in Curriculum and Instruction where she took her MS. She taught chemistry at Watertown (WI) HS, served as faculty assistant in the UW Minority Assistance Program in Chemistry and taught at Bentonville HS after moving to Arkansas with her husband, Thomas Noland. In Arkansas she was also a consultant to the education department at the University.

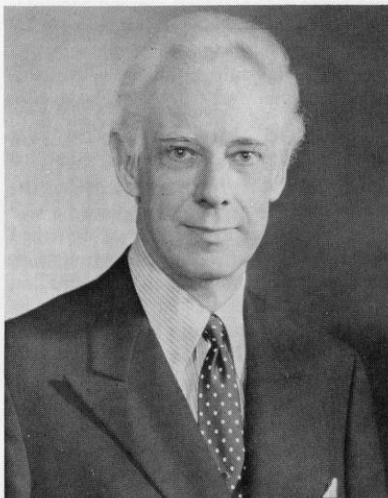
Elizabeth Feldman Link, widow of the late biochemistry professor, Karl Paul Link, died on April 24, 1982 after a lengthy illness. For many years she was active in organizations working for peace and freedom. Her home in The Highlands was willed to the Jane Addams Peace Association for use as a peace center.

Herbert J. Lueck, BS '21, of Berkeley is reported dead in the *Alumnus*.

Helen McElvain, the widow of the late Professor S. M. McElvain, died as the result of a stroke on August 1, 1982. She was born Helen Roth in Madison in 1899. She graduated from the university's commerce course in 1921 and taught in the school for several years prior to her marriage to Dr. McElvain on June 16, 1926. Later she was an accountant with a Madison law firm and was active in several civic organizations. Dr. McElvain died in 1973. Survivors are two daughters, Anne who is Mrs. William R. Frazier of Princeton, NJ and Jane who is Mrs. Carl E. Jenkins of Bath, OH; there are also six grandchildren and three great grandchildren. Helen will be remembered to many Badger Chemists as a warm, friendly person and a gracious hostess.

Stanford Moore, PhD '38, who shared the 1972 Nobel Prize with Christian Anfinsen and William B. Stein, was found dead on August 23, 1982. Several suicide notes were found in his Manhattan apartment. He was suffering from the incurable nerve and muscle disease, amyotrophic lateral sclerosis — Lou Gehrig's disease. Moore, who was born on September 4, 1913 in Chicago, took his BS at Vanderbilt in '35, then received one of the first WARF fellowships at Wisconsin where he was a chemistry major under Homer Adkins. However, his research on the identification of carbohydrates as benzimidazole derivatives was directed by Karl Paul Link of the biochemistry department. In 1939 he

became an associate at the Rockefeller Institute for Medical Research (now Rockefeller U) where he studied the composi-



STANFORD MOORE

tion of proteins, particularly enzymes, by microtechniques such as those he learned from Link (who had learned them earlier from Fritz Pregl in Austria). At Rockefeller, Moore was closely associated with Stein in the determination of the exact amino acid sequence of ribonuclease which is composed of 124 acid units. This was the work on which their Nobel Prize was based. Besides the Nobel Prize, Moore was the recipient of numerous awards and honors for his perceptive work on biologically active proteins; these included an honorary ScD from Wisconsin in '74.

James H. Peterson, PhD '30 with Walton, died on March 30 in Clearwater, FL where he was living after retirement from du Pont.

Edward Albert Prill, PhD '32, was reported deceased by the *Wisconsin Alumnus* in winter '82. He lived in Fredericksburg, TX.

James A. Reid, BS '30, died in 1981 according to the *October Hexagon*. He was manager of the research division of Phillips Petroleum in Bartlesville at the time of retirement in '73.

Alfred C. Robertson, PhD '25. Inquiry to Alumni Records revealed that he is deceased, but death date is unknown. He received the BS in '22 at Oregon State and subsequently worked with Professor J. H. Walton for his MS and doctorate. During most of his career he was associated with Eastman Kodak.

Paul W. Simonds, BA '20, MS '21, died in January '82 in Columbus, OH. He retired in '55 as asst. chief chemist with the IRS in Washington, DC.

Leslie A. Wetlaufer, MS '27, is reported dead in winter '80 by *The Hexagon*. He worked with Professor Kemmerer.

Reports of deaths which came to our attention while in press are included below, generally without full information.

Walter H. Bauer, PhD '33 (Daniels), 3-30-80.

Orville J. Dahl, BS '41, died on 9-14. He had been with B. F. Goodrich for 39 years before retirement.

Arthur A. Dunkel, BS '14, in 1977.

Richard W. Evans Jr., BS '32, 4-12-80.

Walter B. Griem, MS '24, 5-17-80.

Clifford E. Gustafson, BS '27, no date available.

Walter J. Ingram, BA '21, Dec. '78.

George Dewey Phillips, BS '21, died recently. He was a realtor in St. Germain, WI.

Martin Tosterud, PhD '24, (Lenher), died in 1950 according to his daughter who teaches in Eau Claire. He was with Aluminum Co. of American until 1945 when he retired to Minnesota on account of poor health. He served with Chem Warfare Service in France during WWI.

George B. Lyons, BS '21 (Kahlenberg), no death date. Taught science in 4 Wisconsin highs for nearly 40 years. Retired in '60 as head of the science department at Kohler.

Leroy Schaefer, BA '30, MD '39, died on April 8. He had been pathologist and director of labs at the Lewiston Hospital in Pennsylvania.

Jalmar A. Rogstrom, BS '26, of Cincinnati, died on June 5, '81.

This 'n That...

(Continued from page 8)

Robert De Kosky, PhD '72 (Hist. of Science), has been promoted to Assoc. Prof. of History at U Kansas. Bob, Debbie, and the Ihdes had a pleasant day together at the recent ACS meeting in Kansas City.

Richard DeMallie, MS '61, again sent fuel from Pittsford, NY without news.

James D'Ianni, PhD '38, reports that life is a little less hectic since completing his ACS presidency.

Ed Dismukes, PhD '53, continues his work on electrostatic precipitation at Birmingham, AL. He inquired about his namesake, **Gerard C. Dismukes**, PhD '75, and wonders if he might be a distant relative. Ed recently learned about another namesake who took a doctorate at Illinois. Gerard Charles took his PhD with Willard and, after a postdoc at Berkeley, is now in Princeton, NJ.

Carl Djerassi, PhD '45 (Wilds), has
(Continued on page 11)

ICE

The Institute for Chemical Education is in process of development by Prof. Bassam Shakhshiri who has been a member of the chem. dept. since 1970 when he moved from U of Illinois to become Coordinator of the General Chemistry Program. While at Wisconsin he has gained a national reputation for his innovative ideas in teaching general chemistry.

The proposed institute will seek to develop an ongoing program for upgrading chemistry teaching at all levels from elementary and secondary schools and in colleges and universities. In part, it will fill the void created when the National Science Foundation abandoned its support of institutes for science teachers, the program which was so successful in the post-sputnik years. However, ICE is looked upon as a more comprehensive program which will serve as a clearing house for not only upgrading chemistry teachers, but for development of innovative ideas and techniques.

The prospectus reads: "ICE will serve chemical educators in the chemical sciences (chemistry, chemical engineering, biochemistry, etc.) at all educational levels by (a) strengthening the links between the chemical sciences and other disciplines and technologies, and by applying new techniques and methods, such as computer science, to chemistry and chemical education; (b) fostering continuing education and professional growth in the chemical sciences; (c) sponsoring the development and dissemination of creative ideas and practical methods for conveying chemical knowledge and information; and (d) providing a national center for identifying and addressing critical issues in chemical education."

ICE plans regular support of 6-8 residential Fellows on a revolving basis. Projects will usually involve development of instructional materials (syllabi, video tape modules for self-instruction, computer programs for drill exercises, lab experiments, lecture demonstrations, and teacher training programs). Dissemination of ideas will include educational workshops (1-4 weeks) for pre-college and college teachers.

Support for the Institute includes creation of an endowment or other support funds from industry, foundations, and government. The importance of the Institute is rapidly becoming apparent because of the rapid decline of numbers of new teachers being graduated who are educated for teaching of chemistry, physics, and math. This trend is exacerbated by the continued attrition from the pool of older teachers who are leaving teaching for more attractive science work in industry. For example, in some Wisconsin high schools biology teachers are being asked to take over the chemistry course

because they had one or two chem courses in college.

Anyone interested in having more details about ICE may request material from Prof. Shakhshiri at the UW Chem. Dept.

NIEDERHAUSER RUNS FOR ACS PRESIDENCY

Warren D. Niederhauser, PhD '43, is a candidate for the position of President-Elect in this year's election for officers.

If elected, he would become president of the ACS in 1984. Dr. Niederhauser has been with Rohm & Haas since completing his doctorate in organic at Wisconsin. In his early years in industry he was involved in research on plastics and surfactants. From '55 to '59 he was at the Redstone Division in Alabama where he worked on rocket propellants. On returning to the Philadelphia area he was successively research supervisor, assistant director of research, and since 1973, director of pioneering research.

He joined the ACS when he was a grad student and has been active in Society affairs at the local, divisional, and national levels over the years. His services to the Society and his policy statement are detailed in CEN (Sept. 20), pp. 55-56. He has a deep interest in the professional and economic status of chemists. (He won! Ed.)

This 'n That...

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been announced as the next recipient of the ACS Award in the Chemistry of Contemporary Technological Problems. The award is sponsored by Mobay Chemical Corp. and is based upon Djerassi's contributions toward solution of technological problems such as development of oral contraceptics, attempts and solutions to birth control problems, the development of biological agents for control of insect pests, and the promotion of research in countries with less developed scientific capabilities. He is professor of chemistry at Stanford and President of Zoecon Corp.

Robert Doban, PhD '52 (Wilds), sends a generous contribution, both financial and informational. He is presently Senior Vice President, Science and Technology, at Owens-Corning Fiberglas, a member of the corporation's Senior Policy Committee, a Director of the Sherwin-Williams Company, and a Director of the Greater Toledo Educational Television Foundation.

John Dodd, PhD '69 (Zimmerman), is

CHOC

Besides ICE, another chemistry-related alphabetical agency is the Center for History of Chemistry. Aaron Ihde, who taught history of chemistry at the UW from 1946 until his retirement and now sees the course continued by Robert Siegfried, PhD '53, is very happy that the ACS Board voted last December to support the creation of the Center. This is a move which has been long desired by historians of chemistry who have watched enviously the earlier creation of agencies for preserving historical materials and sponsoring historical activities related to other sciences (pharmacy, physics, biochemistry, computer sciences).

The Center for History of Chemistry is being located at University of Pennsylvania where the Edgar Fahs Smith Collection has been in existence for many years. U of Penn is providing physical facilities and is matching the ACS level of funding for the next five years, after which it is hoped that industrial and foundation funding will also be available. Director of CHOC is Arnold Thackray, British-born and educated historian of chemistry who has been on the Penn faculty since receiving his PhD.

CHOC, although it is located at Penn where there is already an excellent collection of books, papers, pictures, medals, and other memorabilia, is not intended to be a repository for personal papers of famous chemists, or a museum of chemical artifacts, but will serve in part as a clearing house for advising chemists about available repositories for such materials and will serve as an information source for locating desired information. The Center also hopes to play a role in supporting appropriate historical projects such as the conduct of oral interviews of leading chemists, the training of historical workers and archivists, and the support of appropriate historical studies. The Center publishes CHOC NEWS as a vehicle to publicize its activities. Interested chemists will be placed on the mailing list upon sending a request to CHOC, Edgar Fahs Smith Hall D-6, U of Penn, Philadelphia, PA 19104.

with Conoco Oil according to Prof. Shakhshiri who met him last January at the Oklahoma Conference on Chemical Education. Other Badgers at the meeting were: **Edmund J. Eisenbraun**, PhD '55 (McElvain), and **John Gelder**, MS '71 (Treichel), both professors at Oklahoma State U.

Margaret Draeger, BA '70, MD '74, writes from Ranstein Air Base in Germany that she has become certified by the American Board of Obstetrics and Gynecology.

(Continued on page 12, col. 3)

WALTERS TO ST. OLAF

John P. Walters, a member of the departmental faculty since 1965, has resigned from his professorship in the analytical division in order to take a faculty position at St. Olaf College in Northfield, Minnesota. This unusual move from a major university research-oriented department to a small liberal arts college emphasizing undergraduate teaching was taken after considerable reflection, John says. His reason, "I wish to develop the Christian aspects of my teaching."

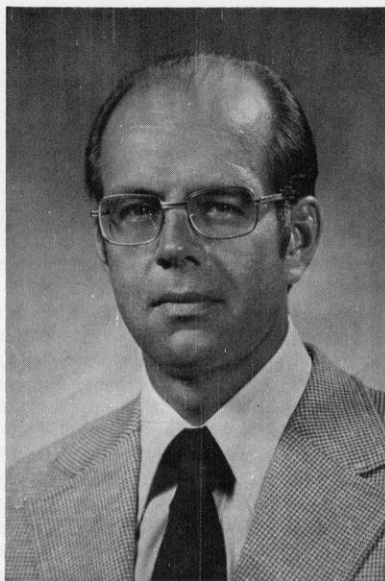
John was born in Elgin, IL on July 4, 1938. He took his BS at Purdue in '60, his PhD at Illinois in '64 where he was a doctoral student of Badger Chemist **Howard Malmstadt**, PhD '50. After a postdoctoral year with Malmstadt, John joined the analytical division as assistant professor. He was promoted to associate professor with tenure in '69, to professor in '72. From '71 to '73 he held an Alfred P. Sloan Research Professorship.

During his years at Wisconsin John has been deeply involved in both teaching and research. Until '78 he held frequent responsibilities for introductory quant courses, since then he has taught the instrumental analysis course. His research field is spectroscopy, particularly high voltage spark-discharge spectroscopy. He and his students have published more than 60 papers based on their work; two of these papers have led to the Wm. F. Meggers Award for excellence, another—in 1980, received the Lester W. Strock Award. John also received the ACS Analytical Division Award in Chemical Instrumentation in 1979. WARF is assignee of seven patents generated from his research. He has, while at Wisconsin, served as the thesis director of 10 seniors (5 of whom went on to PhDs elsewhere), 14 MS candidates and 17 PhDs, and he has been host to 6 postdocs and professional visitors. John's talents have been widely sought for professional lectures, including three Gordon Conferences.

In deciding to leave the UW, John asserts that he welcomes the opportunity to teach in the atmosphere associated with a small, church affiliated college. Baptized in the Congregational Church, John turned to Methodism while a Christian Witness in high school; in college he was an agnostic; as assistant professor, a Unitarian. He and his family are now Lutherans. He was profoundly shaken during the student riots of the late sixties and feels that the problems of that period caused him to conclude that teaching needs to be done in an environment of love rather than in one based exclusively on scholarship.

On the "Day of Reflection" during the riots he read the following passage from

Descartes to his students and asserts that it reflects his own position. "Good sense is of all things in the world most equally distributed, for everybody thinks himself so abundantly provided with it, that even those most difficult to please in all other matters do not commonly desire more of it than they already possess. It is unlikely that this is an error on their part; it seems rather to be evidence in support of the view that the power of forming a good judgment and of distinguishing the true from the false, which is properly speaking



JOHN WALTERS

what is called Good Sense or Reason, is by nature equal to all men. Hence too it will show that the diversity of our opinions does not proceed from some men being more rational than others, but solely from the fact that our thoughts pass through diverse channels and the same objects are not considered by all. For to be possessed of good mental powers is not sufficient; the principal matter is to apply them well. The greatest minds are capable of the greatest vices as well as of the greatest virtues, and those who proceed very slowly may, provided they always follow the straight road, really advance much faster than those who, though they run, foresake it."

He holds that, "as I came to know these young people at a personal level, I realized that it was possible for me to teach out of love, as Christ taught, even though my subject was chemistry."

John is married to Barbara Ann Auble. Son John Anthony, 19, is a student at UW-Eau Claire in Business and Computer Science. Thomas Philip, 14, is a 6'2" high school student who is fascinated by the outdoors and presently forms part of the defensive line of the Northfield freshman football team.

This 'n That...

(Continued from page 11)

cology and has been promoted to major. "Viel dank" for the generous contribution.

Luis Echegoyen, PD '74-75 with Nelsen, began service as a rotator at NSF where he directs a Dynamics Program, replacing **Ken Hancock**, PhD '68.

Carl Eggert, BS '31, of Elgin, IL, was saddened by Mel's death, but had many fond memories brought back by the obituary notice.

David C. England, PhD '43 (Adkins), notes that he is still doing organic fluorine chemistry at the bench in Delaware.

Dorr H. Etzler, BS '35, retired from Chevron Research in Richmond, CA in May 1980. He and Louise recently visited South America.

(Continued on page 13, col. 1)

We join in extending our best wishes to John in his new career at St. Olaf.

St. Olaf College and the UW have had numerous connections through the years, although the flow of St. Olaf graduates to Wisconsin has dropped off in recent years. The first to undertake grad work in Madison was **Emil O. Ellingson** (1877-1968), BS '06, who became a student of Prof. Kahlenberg in 1909. After taking his PhD in '12, Ellingson remained at Wisconsin as an instructor. In '19 he returned to St. Olaf as professor of chemistry and after '24 was head of the department. By the time of his retirement in '52, 52 chemistry graduates had taken doctorates in 14 universities, including 14 at Wisconsin. Among the latter we find the names of: **C. Harvey Sorum**, '27, and **M. Leslie Holt**, '30, who remained at Wisconsin in the general chem faculty; **Nels Minne**, '32, who taught at Winona State and is now retired as emeritus president of the college; **Roland A. Trytten**, '41, a faculty member at UW-Stevens Point; **Paul K. Glasoe**, '38, Wittenberg College; and **Conrad R. Waldeland**, '32, Washington & Jefferson College. Paul S. Lavik, '43, took his degree in biochemistry, '43, and went to Western Reserve U. Industry became the workplace of the remaining chemistry PhDs from St. Olaf: **Harry Fevold**, '28, whose death is reported in "In Memoriam" (Baxter Labs); **Harold W. Knudson**, '39, (Hollingsworth & Voss); **Elmer C. Larsen**, '39 (Sylvania); **Willard Madson**, '31, **James H. Peterson**, '30, and **Donald A. Swalheim**, '41, all went to du Pont.

We are wondering if John Walter's affiliation with St. Olaf may initiate a new influx of Ole's to the UW.

This 'n That...

(Continued from page 12)

Morton Fefer, BS '50, helps ink the press of *Badger Chemist* from Houston, TX.

Robert N. Feinstein, BS '37, retired from Argonne National Laboratory in 1980. He has started a new career as a "non-scientific" writer and notes that although he is enjoying it, it is not particularly lucrative.

Garry N. Fickes, PhD '64 (Goering), enjoys *Badger Chemist* at the University of Nevada in Reno and sends tangible thanks.

Richard C. Franklin, PhD '40, retired from du Pont in 1978 and has kept busy with gardening, grandchildren, and travel.

Stephen E. Freeman, PhD '35, appreciated the write-up of "Mel" Meloche, his major professor. Steve is retired from the presidency of Freeman Chemical, the firm which he founded in Port Washington, WI in '49, but remains active on their Board. Vice-President and Director of Research is **Glenn Svoboda**, BS '52, PhD '60.

Albert Fry, PhD '64, professor at Wesleyan U in Connecticut, introduced Aaron Ihde at the Peter Leermackers Symposium last May and served as his faculty host.

Robert J. Gander, BS '40, MS '42 (PhD Illinois), sends no news of his activities. He is with Johnson & Johnson.

Stephen George, PhD '77 (Hist. of Science), has taken a position with Richmond Community College in Decatur, IL.

J. Calvin Giddings, Res. Assoc. under Williams, '55-56, gave an analytical seminar on Nov. 19, 1981; his subject: "Separation and Characterization of Macromolecules and Particles by Field Flow Fractionation." He is research professor at U of Utah, his PhD alma mater, '54, where he has been a faculty member since '56.

John H. Giese, BS '51, who is a planning consultant for Shell Oil in Houston, sent a check for the Endowment Fund in memory of Prof. V. W. Meloche.

Jeffrey M. Gold, BS '78, has completed his PhD at Duke University where he worked with E. M. Arnett. His dissertation is titled, "A Search for Chiral Discrimination in Phospholipid Aggregates." Jeff is now with Xerox in the Polymer Sciences Area.

Paul Gold, MS '77 (Reich), has recently moved from an organic research lab to environmental control at Upjohn in Kalamazoo, MI.

Douglas E. Goldsack, PhD '66, sent sugar for BC from Sudbury, Ontario.

Jack Graybeal, PhD '55 (Cornwell), expresses a new sympathy for the editor

TROST NAMED VILAS PROFESSOR

This summer Barry Trost was named Vilas Research Professor. Barry has been the recipient of numerous awards and honors in recent years and even the most casual reader of the *Badger Chemist* will be familiar with his name. As director of a vigorous research program, he collaborates with a large number of undergraduate students, graduate students, and post-doctoral associates.

His research has focused on developing new methods of stereospecifically creating new carbon-carbon bonds. Many of the papers describing his research have a characteristic flair, describing both the new synthetic method and the synthesis of a challenging naturally occurring compound demonstrating the new method. Recently, he and his research group have been exploring the use of palladium metal and complexes in organic synthesis.

of BC now that he is national director of the Phi Lambda Upsilon *Register* (2500 copies) which is published twice each year.

Gary L. Grunewald, PhD '66, continues enthusiastic support of *Badger Chemist* and notes that he edits a similar newsletter for the Department of Medicinal Chemistry at the U of Kansas.

Jay Gruskin, MS '78, sends news and thanks from Kearny, NJ where he works at Engelhard Industries, Electronic Materials Division. He finds the Big Apple great.

Frederick Gustafson, PhD '78 (Wright), is working in the Central Research Analytical Laboratories of 3M in St. Paul, MN.

John L. Haack, BS '77, reports surviving grad studies with Prof. Herbert O. House at Georgia Tech. He has joined Union Carbide in Tarrytown, NY as research chemist.

James Hagen, PhD '78 (Vedejs), is now at U of Nebraska-Omaha.

James Hall, PhD '39, keeps busy in retirement by helping preserve our natural heritage. He works with the West Virginia Highlands Conservancy and serves on the Board of the West Virginia Chapter of Nature Conservancy. He also notes in his letter that the weight of the combined issues of the *Badger Chemist* to date is three pounds.

Chris Hamlin completed his PhD in history of science last August and has taken a position with Lyman Briggs College in Michigan State U in East Lansing. L.B. College is the science arm of the university where Chris is teaching courses in history of science and technology. Chris' degree is the 91st completed in the

VILAS PROFESSORSHIPS

The professorships carrying the name "Vilas" were generated out of the bequest left to the University by William F. Vilas (1840-1908), Madison lawyer, politician, and philanthropist. His family settled in Madison in 1851, migrating westward from Vermont. William studied at the small UW, BA '58, and took a law degree at the Albany (NY) Law School, LLB '60. During the Civil War he was a captain in the 23rd Wisconsin Volunteer Infantry. On returning to Madison he established a law practice and was a professor of law, '68-85. An active Democrat, he served in the first Cleveland cabinet as Postmaster-General and, briefly, as Secretary of the Interior. He became U.S. Senator '91 for a single term. On returning to Madison in '97 he abandoned active politics to concentrate on his law practice and his investments in pine lands and paper mills. Twice he was a regent of the UW ('81-85 and '98-05).

The UW was designated as beneficiary of his estate, to become fully available only after the death of his wife and daughter. In the meantime the estate, in the hands of designated trustees, was to be appreciated to \$20,000,000 by reinvesting half of the earnings, and to \$30 million by reinvesting a quarter of the earnings. When the daughter, Mrs. Mary Esther Vilas Hanks died in 1959, the appreciated estate came fully to the UW.

The Vilas will provide for a theater (now a part of the Vilas Communication Hall), for fellowships and for 10 professorships intended primarily for research. Although Vilas specified salaries up to the then magnificent level of \$10,000 for each research professor, he failed to anticipate inflation. The Vilas estate provides \$10,000 toward the salary of each Vilas Professor but the university must fund the bulk of the salary from budgeted sources. The professorship also provides additional funds which are made available for the use of the Vilas Professor.

UW history of science dept. since the first was completed jointly in chemistry and history of science by **Robert Siegfried** in '52 (awarded '53). Coincidentally, both the 1st and the 91st degrees went to students of Aaron Ihde.

Larry B. Handy, PhD '64, visited Dr. Dahl on 8/5. He is now a dentist at Fort Dodge, IA.

William H. Harned, BS '66, is a project leader in the Agricultural Chemicals section of Uniroyal Chemical.

Inez Low Hartwell, BS '53, writes from St. Andrews, Scotland after receiving her
(Continued on page 16, col. 1)



Don Plazek, PhD '56, and Nick Tschoegl, PD '61-63. Don's daughter painted the portrait which was presented to John. Don is at U of Pittsburgh as Prof. of Metallurgical and Materials Engr., Nick is Prof. of Chem. Engr. at Caltech.

JOHN FERRY HAD A PARTY

On Friday, July 9, 1982 the colleagues, students, and friends of John and Barbara Ferry gathered at the Madison Club for a recognition banquet. The event was planned by a departmental committee made up of John Schrag (chm.), Tom Record, and Hyuk Yu. After dinner, a program presided over by Prof. Schrag included remarks by colleagues and former students, some slides carrying John from childhood to the present, the presentation of a thick volume of letters from colleagues, students, and friends, the unveiling of a portrait painted by the daughter of Donald Plazek, and gifts. Pictures were taken on the occasion by Gary Schultz, university photographer. We share a few of these with you. Degree dates are given for students.



Norio Nemoto, PD '75, presently in Kyoto; Dennis Massa, PhD '70, with Kodak; Robert Moore, PhD '62, Kodak.



John Ferry, Robert Marvin, PhD '49, with NBS until retirement, Thor Smith, PhD '48, with IBM at San Jose. Thor was John's first PhD.



Helen McElvain, Irving Shain, Bassam Shkhashiri



Harvey Sorum, John Ferry, Stuart Cooper, Prof. of Chem. Engr. at UW.



John Schrag serving as MC; around table, June Dahl, Robert West, Irving Shain, Robert Moore, PhD '62, with Kodak.



Joe Hirschfelder, Bob Marvin, Betty Hirschfelder.



John and Barbara Ferry, John and Adelaide Willard.

DAHL IN THE FAR EAST

Lawrence F. Dahl's recent foreign travels have included a 3-week trip to New Zealand-Australia (May, 1981), a 2-week trip to China (June, 1982), and a 1-week trip to England (July, 1982). In New Zealand he was a plenary lecturer at the 10th Conference on Coordination and Metal-Organic Chemistry held at Queenstown; in Australia he gave talks at Adelaide U, U of Melbourne, Monash U (Melbourne), Australian National U (Canberra), U of New South Wales (Sydney), and U of Queensland (Brisbane).

Last June he returned to the People's Republic of China as a participant at the Second China-Japan-USA Symposium (held in Shanghai) on Organometallic and Inorganic Chemistry. His tour included a revisit for 4 days at Nanking University (a sister institution of UW-Madison) where his interpreter for two semesters again was Mr. Zhu Zhong-He.

This former Visiting Scholar, who spent two years (Oct. 1979-Dec. 1981) with Dahl's group, also was his interpreter when Dahl presented two seminars at Nanking University three years ago (May-June, 1979) when he and his wife, June (an associate professor in Pharmacology, UW-Madison, at the 77th anniversary of the founding of Nanking University. It is noteworthy that Mr. Zhu, a champion in table tennis both at Nanking University and at UW-Madison, provided advanced table tennis lessons to Dahl in exchange for his training at UW-Madison in metal-cluster synthesis and modern structural determinations by single-crystal X-ray diffraction and spectroscopic methods. Both Mr. Zhu and Mr. Huang Jin-shun, another Visiting Scholar (Sept. 1979-June 1981) with Dahl's group from Fujian Institute of Research on the Structure of Matter (Fuzhou) attended the Shanghai Symposium.

In England Dahl presented a plenary lecture at an International Conference on stereochemistry held at the University of Reading.

During the last year the inorganic-organometallic research group (presently 15 members) under the guidance of Professor Larry Dahl completed its shift in the Chemistry Building to renovated laboratories (on the 6th and 7th floors) especially suited for carrying out organometallic reactions via preparative vac-line and Schlenk-type apparatus. This work primarily has focused on the synthesis, physicochemical characterization, structural-bonding interrelationships, and chemical reactivity patterns of a large variety of new transition metal clusters, several related to biochemical systems and others of indicated or potential catalytic reactivity.

This 'n That...

(Continued from page 13)

first *Badger Chemist* in 25 years. She extends a warm welcome to any Badger Chemists who wander to that area. Inez inquired specifically about several Badger Chemist instructors known to her at the UW-Milwaukee: **Gilbert H. Koch**, BS '38 (lost to us); **Brigita Ekmanis**, BS '54, is Mrs. Alex Kore of Milwaukee; **Doris Roob MD** (lost to us); Sterling Randolph is apparently **Sterling Randall**, PhD '68, who is now at UW-Green Bay; **Donna Zwicky**, MS '58, is now Mrs. Sterling Randall and also teaches at UW-Green Bay.

John Hayes, BS '37, is spending much time during retirement traveling about the country. He reminisces about meeting Professor Meloche at the Pittsburgh Conferences and "more than once [being] expelled from a department store in Pittsburgh because Mel never could keep from lighting up that cigar." He reports frequently seeing **Jack Schempf**, BS '34. John is retired (?) from Penn State.

Louise Hellwig, PhD '78, writes "no news, but thanks for great reporting!" Louise is at Towson State U in Maryland.

Thomas E. Henzler, PhD '72, through personal contact with Prof. Larsen, informed us that he had stopped receiving *Badger Chemist*. An out-of-date address was responsible. Tom was sent a copy of #28. He lives in Rochester, NY.

Richard W. Hess, PhD '71 (Treichel), sends sugar from Wilmington, DE.

Erwin Hiebert, PhD '54-joint Chem and Hist. of Science, was in Madison in October '81 as a participant in a program on "Science and Technology as Power," a preliminary discussion aimed at development of a joint World Council of Churches—U of Wisconsin program on Faith, Science, and the Future. He was also an invited speaker at Berkeley for the celebration of Joel Hildebrand's 100th birthday. He promises to do the same for the BC Editor when Ye Ed reaches 100. Erwin, who is professor of history of science at Harvard, was elected president for '82-85 of the Division of History of Science/International Union of the History and Philosophy of Science at the XVth International Congress in Bucharest in August '81.

Gene A. Hiegel, PhD '65 (Wharton), is professor of chemistry at California State University, Fullerton. He has been there since '66 and reports that besides teaching organic chemistry courses, he is doing research in synthetic methods and natural products chemistry.

David K. Hoffman, PhD '64, is chairman of the Iowa State U Chemistry Department.

Reinhard W. Hoffmann, Visiting Prof.

'68-69, has written of his interest in receiving BC. He is professor at Philipps-Universität in Marburg.

Bruce Holmer, a fourth-year grad student with Phil Certain, has been awarded one of the three national awards to students who have been major authors of a ms published in *J. Physical Chem.* Procter & Gamble sponsors the award which carries a cash prize of \$2500. Bruce is working on scattering theory and unimolecular decomposition of molecules.

Harrison H. "Red" Holmes, PhD '34, sends thanks from Wilmington DE.

Ray C. Houtz, PhD '32 (Adkins), sends greetings and a contribution from Port Charlotte, FL.

Robert Ireland, PhD '54 (Johnson), of Cal Tech was chairman of a symposium, "Chemistry as a Life Science," to honor the memory of Willy Leingruber. It was held at Rutgers in March '82 and was jointly sponsored by the NJ Section-ACS, Hoffman-LaRoche, and Rutgers U. Leingruber was born and educated in Zurich but was a chemist at Hoffman-LaRoche.

William Jackson, BS '76, dropped by to report his Fort Atkinson, WI address. Since the Ed was not present at the time, he got away without being quizzed on his activities.

Harold A. Jeskey, PhD '42 (Adkins), is at the medical school of the University of Texas part-time since becoming Professor Emeritus at Southern Methodist. He reports that he and Marg have traveled to Germany and the British Isles, visiting the great universities. The trip to Great Britain was a gift given to them by former students at a retirement dinner.

Elmer Johnson, PhD '40 (Sorum), sends news of his activities in Brookings and notes that he is enjoying full retirement from South Dakota State with more time to hunt. He and Roberta spent a footloose summer '81 with a visit to Madison for the wedding of a niece, to Seattle to visit children and "do se do" at the National Square Dance Festival, a flight to Fairbanks with visits to much of Alaska by bus, train, and plane, and return to Seattle on the Inland Passage Ferry.

Ronald O. Kagel, BS '58, is director for environmental quality for Dow Chemical USA in Midland.

Barbara Karcher, BS '75, received her PhD in physical chem at Iowa State U according to Badger Chemist **David K. Hoffman**, PhD '64, departmental chairman. Barbara is now on a postdoc at U of Penn.

Ray Kepfer, PhD '30, reports no change in status as he approaches 80 after 19 years of retirement. Sounds as if he's going strong — 200 games of golf per year, 200 games of league bowling, blue gill fishing in Oregon, and flights back

east to visit friends. He lives in Yucaipa, CA.

Alex A. Klein, BS '75, is an analytical chemist with Inland Steel in East Chicago.

Sheldon Kopperl, PhD '70 (Hist. of Science), reports that his biography of Harvard's T.W. Richards is approaching publication. Shelly continues at Grand Valley State in MI.

John Korth, MS '40, reports that his TA in Prof. Schuette's food lab could enjoy retirement as one of his students does — saw and split wood, complete the utility room, lay a stone walk, fix the dishwasher, etc.! John lives in beautiful Maine — but his old TA notices that he also went to Bahama in February, plans a trip to the South Pacific in '82, enjoys the other seasons in Maine, enjoys his children and welcomed a first grandchild. You're not working every minute, John.

Donald J. Kouri, MS '62, PhD '65 (Curtiss), who is at the U of Houston recently received the school's Highest Teaching Award.

Ludwig Krchma, BS '31, has retired from Asphalt Marketing and Research Department of Mobil Oil, but now keeps his hand in the field by consulting. His wife Lucille promises a list of the "honors bestowed on that busy guy in the past 45 years."

Carl Krieger, MS '38 (PhD Biochem '40), writes from Wynnewood, PA, "Mel was one grand person as attested to by the fact that I had associations with him for the past 50 years."

Charles J. Krister, MA '39, continues to do limited consulting and has started a new career as a certified arbitrator as a member of a 3-person panel in New York City. He sends a poem for retirees,

I can live with my bifocals,
My dentures fit me fine
I can see with my trifocals
But I sure do miss my mind.

Walter M. Kutz, PhD '30, notes the effects of inflation in the Placement report in BS 28. In 1930 starting salaries for PhDs in industry ranged from \$2700 to \$3600.

Douglas LaFollette, PD '68-69, won the Democratic nomination for Secretary of State in the September primaries in Wisconsin, winning 49% of the votes over three other candidates, including the incumbent. Doug had been Secretary of State for 4 years when he won the Lieutenant Governor nomination in 1978 and was paired with Acting Governor Martin Schreiber for the top two state offices in the general election in November. However, the election of the Republican ticket of Dreyfus and Olson in the general election left Doug out of office for 4 years. During that time he was active in business

(Continued on page 17, col. 2)

IUPAC MACRO 82 HONORS EMERITUS PROFESSOR JOHN D. FERRY

by John Schrag

The 28th Macromolecular Symposium (MACRO 82) of the International Union of Pure and Applied Chemistry was held this summer (July 12-16) at the University of Massachusetts at Amherst. Approximately 2,500 polymer scientists from 44 countries attended the week-long meeting. A special day-long symposium, the "John D. Ferry Symposium," was held on Thursday, July 15, as part of the Viscoelasticity Microsymposium to recognize the many important and varied contributions that Emeritus Professor John D. Ferry has made to polymer science, chemistry, and the teaching profession. The special symposium consisted of twelve invited speakers, six of whom were former students or postdoctoral associates in his research group: Professor Meyer H. Birnboim, PhD '61, at Rensselaer Polytechnic Institute; Dr. Robert F. Landel, PhD '54, Jet Propulsion Laboratory of the California Institute of Technology; Professor Donald J. Plazek, PhD '56, Department of Metallurgical and Materials Engineering of the University of Pittsburgh; Professor John L. Schrag, postdoctoral associate '67-70, currently chairman of the Analytical Division of this department; Dr. Thor L. Smith, PhD '48, IBM Research Laboratories in San Jose, California; and Professor Nicholas W. Tschoegl, postdoctoral associate '61-63, Department of Chemical Engineering of the California Institute of Technology. Six additional speakers were polymer scientists that we have had close professional ties with Professor Ferry: G. C. Berry, Department of Chemistry of the Carnegie-Mellon University; W. W. Graessley, Department of Chemical Engineering at Northwestern University; C. W. Macosko, Department of Chemical Engineering of the University of Minnesota; D. S. Pearson, Bell Telephone Research Laboratories; P. Therio, Ecole Supérieure de Physique et de Chimie Industrielles de la Ville de Paris; and L. J. Zapas, National Bureau of Standards. Don Plazek, Nick Tschoegl, Bob Landel and Thor Smith served as session cochairmen, with John Schrag acting as overall coordinator and biographer.

In keeping with the diverse nature of John Ferry's interests (he has published papers dealing with such esoteric subjects as "The Differentiation of the Viruses of Fowl Plague and Newcastle's Disease," "Some Heat Capacity Data for Durene, Pentamethyl Benzene, Stilbene, and Dibenzyl," "The Ultrafiltration of Proteins

through Graded Collodion Membranes," "Studies of the Dielectric Properties of Protein Solutions," "Chemical and Mechanical Properties of Two Animal Jellies," "A Fibrous Protein from the Slime of the Hagfish," "Action of Anti-fouling Paints," and an extensive series of papers dealing with fibrinogen, fibrin, and the general question of fibrin clot formation in addition to his extensive list of publications dealing with more typical polymer research), the topics varied widely; included were discussions of the linear and nonlinear mechanical properties of polymers and polymer solutions (the general area for which John Ferry is probably best known), certain aspects of reptation in polymer melts, new kinds of instrumentation for the measurement of viscoelasticity, time-dependent properties of glassy polymers, physical aging in poly (methyl Methacrylate), a new method for measurement of "die swell" in polymers, rheological properties of multi-phase systems, high frequency viscoelastic properties of polymer solutions, and the influence of concentration on viscoelastic properties of polymer solutions. Professor Ferry described some very interesting recent work by his research group on mechanical, optical, and x-ray scattering studies of fibrin films and clots.

Of the fourteen papers representing the UW-Madison at the various sessions of MACRO 82, six described research work in our department. The General Chairman of IUPAC MACRO 82 was Professor James C. W. Chien, currently of the Department of Chemistry at the University of Massachusetts; Jimmy worked here at Madison with Professor John Willard. More than twenty former students and associates of Professor Ferry attended the IUPAC meetings, as well as approximately fifteen current and former students from other research groups in our department.

This 'n That. . .

(Continued from page 16)

and environmental affairs. Prior to election to the State Senate in '72, Doug, a chemistry PhD from Columbia, taught at UW-Parkside.

Harold Larson, BS '43, writes, "Honolulu is not on the main line, and I enjoy the Badger Chemist." Harold is at U of Hawaii at Manoa.

James J. Leddy, PhD '55 (Larsen), stopped by the office recently informing us he is still with Dow Chemical at Freeport, TX. Dr. Bender appeared on the scene to extend greetings and ask about **Al Prince**, PhD '56 with Bender, who is now back in Midland, MI with Dow Chemical in their Research Division. If it had not been for this conversation the *Badger Chemist* would have been sent to Al at Houston. (But see Prince, later.)

Samuel Lenher, BA '24, (PhD '26 Univ. College, London) writes, "I write particularly because Mrs. Lenher and I appreciated the memorial notice on Villiers Meloche. The notice was so written that it made Villiers seem alive. He had been a friend of mine for 60 years." Dr. Lenher was recently made a Fellow of the Polytechnic Institute in New York and is currently chairman of the 150th Anniversary Committee of the U of Delaware Board of Trustees.

Jerrold P. Lokensgard, PhD '67 (Lemal), is assoc. prof. of chemistry at Lawrence U in Appleton. He has been there since spending a PD year at Iowa State. Another Lawrence faculty member with strong UW associations is **Robert M. Rosenberg** who has, on several occasions including last year, spent leaves at Madison to pursue his research in physical chem. Bob, a Northwestern PhD, has been at Lawrence since '56 and is now Robert McMillan professor there.

Richard N. Lovett, BS '40, spent a year with Flambeau Paper after graduation, then took an MS at MIT in chem engineering. Since '43 he has been at Mobil Research and Development, Paulsboro, NJ.

Richard T. Luibrand, PhD '71, has been promoted to professor of chemistry at California State U-Hayward.

William Luker, PhD '55 (Schuette), checks in from State College, MS, where Bill is on the faculty.

Michael Mao, PhD '80, is now with Monsanto in St. Louis. After taking his doctorate with Prof. Trost he spent two years as a postdoc at Illinois. His wife is the former **Kit Ming Mak**, PhD '81 with Prof. Treichel.

Eldor A. Marten, BS '25 (PhD Biochem '29), after a trip to Upper Wisconsin, wonders where all the fish have disappeared.

Mary Phillips McFarlane, BS '72, is a Chemist 2 for the Wisconsin Dept. of Agriculture, Trade and Consumer Protection.

Allen J. Metzler, BS '43, has retired from NACA-NASA and lives in Middleburg Hts., OH. He couldn't resist a mild jibe at us regarding the Badgers' showing against Tennessee at the Garden State Bowl last December "On National TV yet!" But he still wants to be a Badger.

Cedric G. Mickelson, BS '35, retired from American Steel Foundries and has kept busy with travel, photography, and gardening. He reports keeping in contact with **Gene Hetzel**, BS '35.

Therald Moeller, PhD '38 (Krauskopf), has kept busy writing; *Inorganic Chemistry, A Modern Introduction*, published by John Wiley & Sons, and as an editor and contributor to the 8th Edition of *Gmelin* (Continued on page 19, col. 1)

FACULTY RELATED ITEMS

Lillian **Alberly** writes that her husband, **Bob**, PhD '47, is enjoying life as a chemistry professor once more. Bob left the UW in '67 to become Dean of Faculty at MIT. He stepped down from that position in January '82 in order to return to the laboratory and classroom.

June L. Dahl, the wife of Professor **Larry Dahl**, and a faculty member in the Medical School's Pharmacology Department, was a recipient of the Chancellor's Award last May when the University honored another group of distinguished teachers. A chemistry PhD at Iowa State U, June joined the UW faculty as a part-time instructor in 1962. Her original teaching was in introductory chemistry, but she later became associated with the Pharmacology Department and now holds an associate professorship. In 1977 she received the prestigious Pre-clinical Teaching Award.

Olive Daniels, widow of Farrington, continues her literary productivity. Her latest book is "Minnetonka Mornings and Other Memories," dealing with her own childhood and youth. It is privately published for her 12 grandchildren who told her, "Please Grandma, just jot down your memories so we can have them. Mrs. Daniels continues to reside at Attic Angel Towers, 702 Segoe Rd., Madison.

Alex Kotch who left the department in '77 to take a position in environmental science at MRI/SERI, Boulder, CO, is now Director of the Office of Research and Program Development at U of North Dakota, Grand Forks.

Byron Kratochvil wrote last November in appreciation of *Badger Chemist* 28. Although he has been away from the chemistry faculty for nearly two decades he reports that he still enjoys hearing news of the department and its alumni. He was on sabbatical a year ago at the National Bureau of Standards from his position as Professor of Chemistry at the University of Alberta, Edmonton. He was recently coauthor of *Introduction to Chemical Analysis*, published by Saunders. Byron reports that his research on spectrophotometric methods for measuring free metal ion concentrations and his work on methods for determining substances of biological interest is going well. It may be remembered that Byron took his PhD at Iowa State with Harvey Diehl who recently retired. At that time, Diehl sent Byron five boxes of old books, many dating back to the eighteen hundreds.

Jean Schuette, widow of Professor H.A. Schuette and Founding Editor of

Badger Chemist, has left her home in Maple Bluff and is now in Attic Angel Nursing Home. Many older Badgers will remember the Schuette home on the top of the bluff overlooking Lake Mendota. The home was the site of several Chem. Dept. fall receptions for grad students and their wives before the growth of the department to a size too large for receptions in faculty homes. The Schuette home will remain in the family since the eldest son, John, President of Cartridge Park, has purchased it for resale to his daughter, Paula, who is married to a managerial employee of Oscar Mayer Co.

Dorothy Dana Walton, widow of Prof. J.H. Walton, writes (Oct. 1) that she and daughter Marcia are enjoying the new opera season at Lincoln Center. They were expecting daughter Judy, now a psychiatrist in Madison, for a week's visit.

Emeritus Prof. J.W. Williams, PhD '25, continues to appear frequently at his office in the Chem. Bldg. He is still occupied in writing up material dealing with the ultracentrifuge laboratory which he directed for more than two decades. An earlier BC created some confusion regarding his address. From spring until winter he is in Madison at Attic Angel Towers, 702 Segoe Rd. His winters are spent in Pasadena, CA, at the Cal Tech faculty club.

Alice King Meloche, widow of our late Professor Meloche, sent a letter on December 1 in appreciation of the story on **Mel** in the *Badger Chemist* last year. She also liked the story about Joe and felt that No. 28 was unusually filled with news. Patty sent news about several of Mel's graduate students and a very generous check to add to the Endowment Fund with the remark, "Mel would have liked that." The check has been deposited in the fund in the names of Mel and Patty. A note was also received from Emeritus Professor John C. Bailar, Jr. of Illinois expressing interest in the story about Mel. John and Mel had many contacts through Alpha Chi Sigma and other activities. He remembered an interesting anecdote about how Mel met Patty after each of them had had numerous phone conversations about placement problems. John recalled that Mel was very active in departmental placement. Before their marriage Patty worked in the University Placement Office where their first meeting took place. John also reports that Joe Hirschfelder was born on May 27 which is his own birthdate.

Don Moore who has been associated with the Chemistry Department for 26 years, most of them in the stockroom of the freshman chemistry program, retired in February '82. A surprise retirement party was held for him on February 18 at the Elks Club.

CLAUDE WOODS AND ISOXOGEN

On 23 June 1982 Phil Certain sent a letter to the Editor of CEN regarding an extension of their Concentrate, "Radio-astronomers identify isoformyl ion" which appeared in the journal. We quote Professor Certain's letter in full.

"Perhaps your readers would be interested in the chemistry background to your brief report of the exciting astrophysical observation of the isoformyl ion, COH+ [C&EN, June 14, p. 19]. No story in science ever has a beginning, but to start this one: In 1970, chemist Bill Klemperer (Harvard) made the startling conjecture that a previously unidentified astrophysical spectral line, originating in a molecule dubbed Xogen, was in fact due to the presence of the formyl ion, HCO+, in interstellar clouds. This was an important conjecture since it could provide observational evidence for the ion-molecule chemistry that Klemperer and his colleague Eric Herbst (now at Duke) were developing to explain the chemical nature of interstellar clouds.

Klemperer's conjecture set the quantum chemists to computing the equilibrium geometry of HCO+ and a number of results, principally those of Fritz Schaefer (U.Cal.-Berkeley), provided strong support for Klemperer's idea. The issue was not settled definitively until 1975, however, when chemist Claude Woods (U.Wisc.-Madison) made the first laboratory observation of the microwave spectrum of HCO+ and proved that it was Xogen. This gave the ion-molecule theory of interstellar chemistry its first strong observational basis.

At about the same time as Woods was making his observations, another unidentified astrophysical line was found in the same general region of the spectrum as the Xogen lines, and Eric Herbst quickly proposed that this line was due to the isomer of Xogen, the isoformyl ion, COH+. This suggestion sent the quantum chemists scurrying back to their computers, and a number of calculations were reported that showed that isoXogen was probably not the source of the new line, but that it is a relatively stable ion and it was reasonable to believe that isoXogen coexists with Xogen in the interstellar medium. But what were its spectral frequencies? The radioastronomers had little chance of finding a line, let alone identifying its origin, without a laboratory measurement.

These matters stood until late last year, when Woods and his students found in their spectrometer a line which their experiments showed was due to (1) a positive ion that (2) had one carbon, one oxygen, and one hydrogen atom and (3) was not Xogen. What else could it be but iso-

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This 'n That...

(Continued from page 17)

Handbook of Inorganic Chemistry — The Rare Earth Elements.

Leta A. Mueller, MS '68, is with Xerox as a technical librarian and reports a new address, Box 263, Webster, NY.

Melvin M. Mueller, BS '39, is with Robert A. Johnston Co. Ye Ed had him with Johnson Wax last year. Robt. Johnston Co. is now known as Ward-Johnston Co. Mel makes a resolution each year to write to old classmates, then gets too busy to do it.

Charles Naeser, BS '31, fishes when he can, makes fish tackle in winter, and continues banding birds as a hobby. He started bird-banding at Madison when he operated a string of traps for Professor Wagner of the Zoology Dept.

Norman A. Nelson, PhD '52, was pictured in CEN (8-16-82) as coauthor of the Special Report on "Prostaglandins and the Arachidonic Acid Cascade." A native of Edmonton, Alberta, he took his BS at U of Alberta in '45 and his doctorate under Professor Wilds. Following post-doctoral work at MIT he joined the faculty there. He joined Upjohn in '59 and is now head of chemical research in Upjohn's cardiovascular diseases laboratory.

Ambrose R. Nichols Jr., PhD '39, not only makes suggestions (BC Endowment

WOODS

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Xogen? They alerted radioastronomer Bill Irvine (U.Mass.) who began with his associates an arduous search for the line in interstellar sources with telescopes both in the United States and Sweden. Meanwhile, the spectroscopists could not be sure of the identification of the spectrum until they had observed enough isotopically substituted species to derive a consistent set of bond lengths for the molecule. This work took several months, but finally a positive identification of the spectrum as arising from isoXogen was completed just before the exciting news came that the Irvine group had observed isoXogen in Sagittarius B2. There was even a bonus: The intensity of the isoXogen line compared to the Xogen line suggested potentially important conclusions about the abundance of the ubiquitous interstellar hydrogen atoms.

This is a beautiful story of science. It shows how contributions from many people and places, from theory and experiment, from experiment and observation, from chemistry and astronomy, from the laboratory and the center of the galaxy come together to solve one of nature's mysteries. I was privileged to be an observer and can testify that this story is true."

Fund, see BC #27, p. 2), but produces when his suggestions are implemented! Although retired from his presidency of Sonoma State College, Amby has become active in the Elderhostel Program — reports that the Wisconsin Coordinator is Ann Ostrum at UW-Madison. The Nichols have also returned from a freighter trip to North Africa.

Richard S. Nicholson, PhD '64 with Shain, now serves as Executive Director of the NSF Commission on Pre-College Education in Math, Science and Technology. His assignment began on 5-26-82 and is expected to last 18 months after which he will return to the Chemistry Division of NSF.

Stephen W. Nicksic, PhD '52, is retiring from Chevron Oil Field Research Co. but is continuing in the petroleum field as president of Stephens Chemical Service & Supply, Inc.

John Norman, PhD '54, at General Atomic Company, was featured in a recent Gulf Oil advertisement. The focus of the ad was research on water-splitting as a source of energy.

Mary Jo Nye, BA '65, (PhD '70 in history of science), writes from the Institute for Advanced Study in Princeton where she and her husband are spending a leave of absence from Oklahoma to write book manuscripts. She is working on an anthology titled *Are Atoms Real? From the Karlsruhe Congress to the First Solvay Conference. 1860-1911. A Selection of Primary Sources.*

David O'Krongly, BS '80, and **Steve Zimmerman**, BS '79, write from Columbia University where they are working on their PhD under the direction of Ronald Breslow. Ron is studying the construction of hydrophobic cavities and Steve on the transamination of synthetic pyridoxals. They sent regards "to all the fine people we came to know at Wisconsin." Dave singled out Barry Trost, his thesis supervisor for warm regards; Steve had best wishes for Hans Reich, and of course his father, Howard Zimmerman.

David H. Olson, BS '59, and **Kathryn Roberts Olson**, BS '59, live in NJ where David works at Mobil Oil. He obtained his PhD from Iowa State U in '63.

Robert J. Paradowski, PhD '72 (Hist. of Science), spent the fall semester '81 at the Linus Pauling Institute in Palo Alto where he could spend full time on his projected biography of Pauling. Bob has decided to abandon the idea of a one-volume popular biography which has been urged on him, and is proceeding with a multi-volume work dealing with Pauling's career in depth with emphasis on his scientific work. The first volume, which will bring the story through Pauling's youth and education, is nearing completion. Bob returned to his position at

Eisenhower College of Rensselaer Inst. of Technology at Potsdam, NY in late January.

Gary R. Parr, PhD '73 (Taylor), is joining the faculty of the Biochemistry Department at Clemson University.

Donald E. Pearson, BS '36 (PhD '40 Illinois), became Professor Emeritus at Vanderbilt University in '79. He remains active in fuel research, organic synthesis, and consulting. He would welcome correspondence from others in the class of '36.

Fredus N. Peters Jr., PhD '25, will be interested to know that radio station WHA is celebrating 65 years of broadcasting this year. Pete teamed with Mike Klein to become ham operators when both were grad students and Pete's wife, Helen, was secretary to Dean Louis Reber of the Extension Division, under which the primitive station was developed.

Russell W. Peterson, PhD '42, president of the National Audubon Society, learned of Mel's death through the *Badger Chemist*. He wrote, "I was sorry to hear this. He was a great friend to me," and enclosed a letter to be forwarded to Patty. Russ, who is now president of the National Audubon Society, continues to be active in preserving the environment. He spoke out vigorously against government policy in a Society meeting in Madison.

Ralph Petrucci, PhD '54, has seen his *General Chemistry* published by Macmillan in its third edition. It is being used as a text at the UW in Chem 103. Ralph is now back in his reconstructed home after the original house was badly gutted by the extensive fires in San Bernardino, CA, in '80. Another Badger Chemist and fellow faculty member at Cal State, **Lee Kalbus**, PhD '54, also lost his home in the conflagration.

William F. Pfeiffer, MS '66, is now Professor of Chemistry at Utica College of Syracuse University in Utica, NY. His research interests are changing to molecular spectroscopy and he is presently learning how to use the pulsed- and cw-dye lasers available in the laboratory of G.H. Atkinson.

Nancy Piltch, PhD '81, is a postdoctoral associate at U of Arizona.

Daniel S. Polcyn, PhD '65, left UW-Oshkosh in '80 and joined Pope Scientific Co. in Menomonee Falls, WI as Research Director. Pope is involved in development of instruments for chemical instrumentation.

Stanley W. Polichnowski, PhD '77 (Casey), presented a seminar at the UW in October '81 on "Industrial Chemicals from Coal." Stan, who is with Tennessee Eastman, played a major role in developing a catalytic process for converting methyl acetate and CO to acetic anhydride.

(Continued on page 20, col. 3)

CHEMISTRY RANKS HIGH IN NEW STUDY

The chemistry department continues strong in the most recent evaluation of doctoral programs which was published this fall. We have not seen a copy of the full report as we place this account in our printer's hands while BC is in press but we present the following from a report in the *Chronicle of Higher Education* (9-29-82, p. 8).

This most recent evaluation is the first to be made since the American Council on Education study published in 1969. The present study was made by a committee created by the Conference Board of Associated Research Councils, which includes the American Council of Learned Societies, American Council on Education, Nat'l Research Council, and Social Science Research Council. While the full study will include all areas of graduate study, the first report is restricted to math and physical sciences (chem, computer sciences, geoscience, math, physics, and statistics). Subsequent reports will include biological sciences, engineering, humanities, and social sciences.

The present study, unlike the earlier ones, does not attempt to rank schools in numerical order since such rankings have been criticized because no single ranking can properly assess overall quality of a graduate program. Instead, the study lists 16 separate criteria "related to quality" and lists the scores for each. The criteria include size of graduate faculty, number of grad students, success in finding jobs, extent of outside research support, library resources, and number of publications of faculty members. The study also includes a "reputational survey" in which peers rated faculty on scholarly competence, effectiveness in educating research scholars, improvement of programs in the past 5 years, and familiarity with the faculty being rated. The results are presented in raw scores and in standardized scores reflecting rank above or below a mean of 50.

The summary of standardized chemistry scores for 145 chem. departments having doctoral programs reveals that UW-Madison continues to rank among the elite. In "Quality of Faculty," UW had a standardized score of 69, placing it in a 7th place tie with UCLA, Chicago, and Illinois. California-Berkeley, Cal Tech, and Harvard held a top score of 74, followed by MIT (73), Stanford and Columbia (70). Other high ranking faculties were: Cornell (68), Northwestern (65), and Purdue and Yale (64).

In the category of "effectiveness in educating research scientists," the UW score of 67 placed it in an 8th place tie with UCLA, Chicago, and Cornell. Top

scores went to Cal Tech (73), Berkeley (72), Harvard and MIT (71), Columbia (70), Illinois (69) and Stanford (68).

Seventy-one departments ranked ahead of Wisconsin in "improvement of programs in the past 5 years." Its score of 49 was matched by Illinois, Washington-Seattle, and 5 other schools. In this category, many of the prestigious schools held modest scores while lesser departments scored better. UW-Milwaukee, whose doctoral program started a decade ago, scored 61 in improvement although its other scores were below the mean.

In "familiarity" Wisconsin ranked in 6th place with Cornell (70), while Berkeley (74), Cal Tech (73), and Harvard, Illinois, and MIT (each 71) ranked higher.

Copies of the full report, *An Assessment of Research-Doctorate Programs in the United States: Mathematical and Physical Sciences*, are available at \$10.50 from National Academy Press, 2101 Constitution Ave. N.W., Washington, D.C. 20036.

UW RANKS WELL IN NY TIMES GUIDE

The Madison campus received 5-star (top) rankings in Academics and Social Life, and 3-star ranking in Quality of Life in the New York Times' *Selective Guide to Colleges*, a new book that rates 265 schools in the three areas. The lower ranking in Quality of Life is attributable to housing shortages, size of the campus, and cold weather.

The *Guide* praised academics highly. "A list of first-rate academic programs at Madison would read like the college catalog."

It also says that the Madison campus offers "more diversity than practically any other institution in the nation... Moreover, quantity is matched by quality."

CAMPUS — 1982

Campus maps reveal that the physical boundaries of the UW campus are now bounded by North Frances St. on the east, Regent St. on the south (shrinking back to University Ave. at Breese Terrace), University Bay Dr. on the west, and as usual, Lake Mendota on the north. Actually, the area is shared in part with private business and homeowners in the blocks near Frances and Regent Streets, and with Forest Products Lab, the Veteran Hospital, and the WARF office tower on the west end. There are extensive parking lots and athletic fields in the University Bay area and just beyond, but not actually connected with the campus, is Eagle Heights with its extensive collection of faculty and student apartments for married students.

WEST and Si = Si

Robert West received national attention in the press last winter in connection with the successful preparation in his laboratory of a compound containing double bonded silicon atoms. The achievement was reported in *Science* (Dec. 18, 1981) by Bob, his graduate student Mark Fink, and Josef Michl of the U of Utah. According to the *New York Times*, (12-29-81), "... a colorless silicon material is cooled nearly to absolute zero. The material turns blue when irradiated with U-V light, then is transformed into an orange-yellow substance as it is warmed. The residual crystalline solid is stable and contains silicon-silicon double bonds resembling those of carbon." The compound is named tetramesityldisilene. The research is described in volume 8 of the private newsletter circulated by Bob for former and present members of his research group. Bob was also the organizer of a symposium on Organosilicon Chemistry held in the department on 6-14-82. During the past year he also presented lectures at international symposia at Graz, Austria; Budapest, Hungary; and Jerusalem, Israel. He climbed 4 mountain peaks in the Austrian Alps before the meeting in Graz.

This 'n That...

(Continued from page 19)

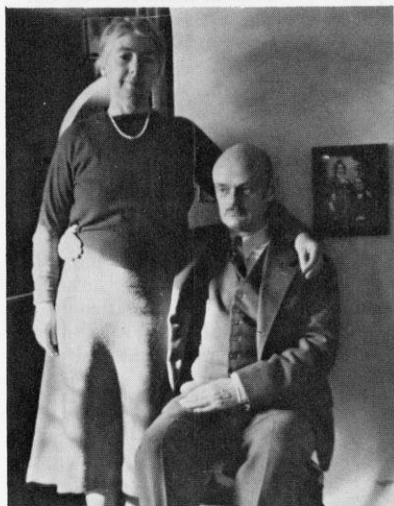
Martin Pomerantz, PD '63 (Berson), visiting professor Fall '72, spent the summer of '81 as visiting professor in the Chemistry Department of Ben-Gurion University of the Negev in Beer Sheva, Israel. He is Professor of Chemistry at University of Texas at Arlington.

Allen K. Prince, PhD '56, has become Diversification Director for Dow Chemical Europe. In this newly created position Al heads a team of project managers who are directing the development and commercialization of a broad range of new products for Dow Europe. A graduate of Wabash College, Al took his doctorate under Prof. Bender. He immediately joined Dow at Midland where he became associated with Technical Service and Development in assignments involving chelating agents and ion exchange resins. In '68 he became director of R and D for Functional Products and Systems Dept. and five years later was named director of Product Research for the Texas Division of Dow U.S.A. On returning to Midland in '79, he became project director for research in the new Innovation Development Dept. and two years later became director of Discovery Research for the Michigan Division of Dow U.S.A.

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Photos by McElvain

Following their mother's death, the McElvain daughters gave Paul Bender more than a hundred prints taken by Professor McElvain between 1937 and 1958. At the beginning of that period Mac was suffering badly from what was ultimately diagnosed as an ulcer and he undertook a hobby which might relieve some of the stresses. As was characteristic of him when he undertook a project, he strove for excellence and the results are clearly evident. We are sharing three of the prints which will have special interest to alumni of the 1940s period. The collection contains numerous prints of organic grad students in the department of '37 to '58, as well as faculty members and members of their families.



THE HALLS MOCKING THEIR VICTORIAN ANCESTORS

Norris and Alice Hall lived next door to the McElvains and were close friends. Norris had a wry sense of humor and loved to cut pompous persons and ideas back to size.

This 'n That...

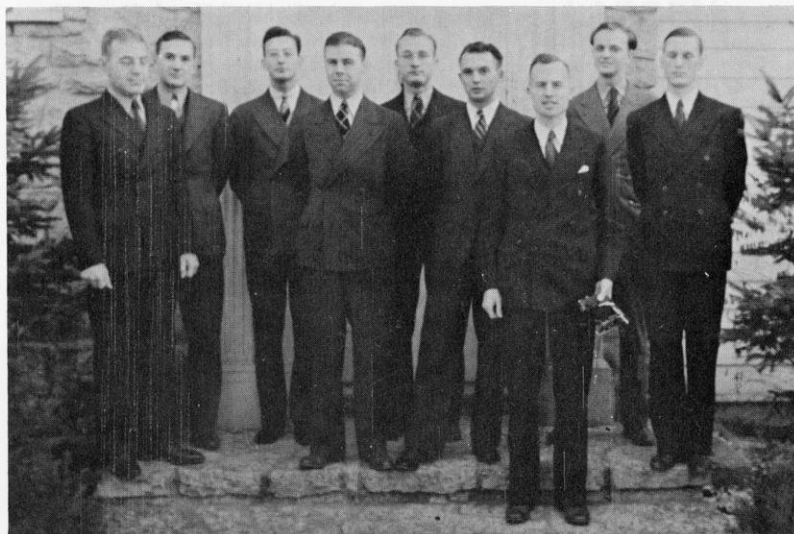
(Continued from page 20)

John Quinlan, PhD '59, sent a nice sweetener but no news about himself.

Gorman L. Quinn, PhD '51 with Dr. Bender, moved last year from Wilmington, DE to Mesa, AZ. This information comes from Dr. Bender who had direct contact with him August 10, '82.

Dallas Rabenstein, PhD '68, sent something for the BC which he always enjoys reading. Dallas is with the chem. dept. at U of Alberta in Edmonton, Canada.

O. Bertram Ramsay, PD '68-69, is the author of *Stereochemistry*, published by Heyden & Son in 1981. The volume is



THANKSGIVING AT THE McELVAINS

The picture, taken in front of the McElvain home on Thanksgiving Day, 1938, has l. to r.: Harold Jeskey, '42 A who is now retired from Southern Methodist U; Allen Schneider, '41 with du Pont (now deceased); Karl Weber, '41 M with U.S. Dept. of Commerce, later a consultant in DC area (no present address in our files); Phil Walters, '42 M with du Pont, now retired in Tucson; Gerald Whitman, '40 A with du Pont; Don Kunding, '42 A with Kansas State (now deceased); Marvin Spielman, PhD '33 Minnesota, who was asst. prof. at UW '36-40 — then at Abbott Labs (died in '57); unidentified; Wilkins Reeve, '40 with U of Maryland, now retired. Identifications by A. L. Wilds and Harold Jeskey. Major prof. identified after degree date by: A = Adkins, M = McElvain.



ORGANIC DIVISION IN 1941

l. to r., seated: S. M. McElvain, Homer Adkins, Mike Klein. Standing: Wm. S. Johnson, Alfred L. Wilds.

part of the historical series, "Nobel Topics in Chemistry," being edited by J.W. van Spronsen of Utrecht, and reviewing various chemical subjects with reference to Nobel Prizes awarded in the field. Ramsay's book gives special emphasis to the work of Nobel laureates Hassel and Barton (1969) and that of Cornforth and Prelog (1975) while relating the history of stereochemistry to the original publications of van't Hoff and Le Bel in '74. Bert is now chairman of the chem. dept. at Eastern Michigan U in Ypsalanti.

Margaret M. Rendall, BA '45, was reminded by the piece on Prof. Meloche that "most of my good professors are gone now." She worked on food chem under Prof. Schuette, then joined S.C. Johnson in Racine and is still there doing product research. She gets to Madison for football games and last fall she came to talk to some high school girls about careers in science-math.

Frederick W. Riley, BS '43, sends a

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FRESHMAN CHEMISTRY — THEN AND NOW

Enrollments in frosh chem exceeded 3,100 students in fall '82. Another 200 students were turned away because of lack of locker space. Five courses, with a total of 11 lecture sections, are being offered. The staff consists of 7 professors, 2 lecturers (Jensen and Schreiner), one lab director (Glen Dirreen) and 77 teaching assistants. The courses being offered are:

103, four credits with 2 lectures, a 1-hour discussion and a 2-hour lab weekly. There are 5 lecture groups, taught respectively by: Shkhashiri, Schreiner, Treichel, and Dahl. Students in each lecture group are divided into from 12 to 16 discussion-lab sections with the lecturer being responsible for only those students in his own lecture group. The course is open to frosh without further prerequisites.

This course is somewhat equivalent to the old **1a** taught by Walton and Krauskopf prior to '48 and by Willard, Ihde, Larsen, and others for a decade thereafter. Course 103 also includes students from engineering who were once taught by Kahlenberg, and after '40 by Holt in the course numbered **2a**. The original 1a had 2 lectures, 2 quiz sections, and 2 two-hour labs per week.

104, 5 credits with two lectures, 2 one-hour discussions, and one 3-hour laboratory weekly. Prof. Gaines gives the lectures and is responsible for the course which has 14 sections taught by TAs. The course deals with second-semester general chem and qualitative analysis and is roughly equivalent to the old **1b** and **2b**.

107, 5 credits with 3 lectures, 2 one-hour discussions, and one 3-hour lab weekly. The course is titled "Chemistry for Mankind" and deals with basic aspects of chemistry and their relation to practical human problems such as energy, environment, foods and drugs, etc. The course was introduced in '70 as an honors course by Prof. West under the title "Revolutionary Chemistry" and proved to fill a need in the curriculum. In somewhat modified form, he continues to offer the course to students who have had a year of high school chemistry. It is a terminal course for most students. There are 8 sections this fall.

108, 5 credits for 3 lectures, 2 discussions, and one 3-hour lab per week. This course was created in the seventies to provide a terminal course for students in certain majors and has had substantial enrollments ever since (28 sections and 2 lecture groups this fall). The course has been taught by various members of the faculty, including visitors; this fall both

sections are the responsibility of William Jensen who has had extensive teaching in the department while completing his PhD with Prof. Larsen. The course is open to students who have had no high school chemistry but students with such previous chem are not excluded.

109, 5 credits for 3 lectures, 2 discussions, and one 3-hour lab per week. This course is a modification of the **4a** course created by Prof. Sorum for chemistry majors and chem engineers in '41. His course was highly innovative in that it presumed a good high school course in chemistry as well as a good understanding of math. He placed heavy emphasis on problem-solving and his problems soon found their way into his widely used book, "How to Solve General Chemistry Problems." He was also responsible for a text and a lab manual of semi-micro qualitative analysis for use in Chem **110**, the next course for majors.

When Prof. Sorum retired in '70 the first-year courses for majors were modified to include introductory quantitative analysis during the freshman year. The first semester course is the responsibility of the freshman chem staff, the second of the analytical division. The two sections of 109 are taught this fall by Profs. Yu and Weinhold. There are 6 lab-disc. sections associated with each lecture group.

ACS AWARD IN PURE CHEMISTRY

Michael J. Berry, who was a member of the faculty from '70 to '76, has been named to receive the ACS Award in Pure Chemistry next spring for his contributions to the field of laser chemistry. Mike was born in Chicago, took his BS at U of Michigan ('67) and his PhD at Berkeley ('70) where he studied under George Pimentel. His research led to the discovery of 30 chemical laser systems and their use in the study of reaction dynamics. At Wisconsin, he and his students discovered an additional 50 chemical lasers and he developed a theoretical model on the Franck-Condon principle for the determination of energy distribution among reaction products. In '76 he joined Allied Chemical at Morristown, NJ where he founded and developed a photon research department. Three years later he became Robert A. Welch Professor of Chemistry at Rice University in Houston where he is director of the Rice Quantum Institute. His work is discussed in greater detail in CEN, 9-13-82 on p. 45. His wife **Julianne** is a UW chemistry PhD '78.

The ACS Award in Pure Chemistry has been sponsored since '40 by Alpha Chi Sigma and is restricted to chemists under age 38. It originated in '31 by consulting chemist Arthur C. Langmuir and

was then known as the Langmuir Award; the age limit was then 35. Seven Badger Chemists have received the award before Berry: '34, **C. Frederick Koelsch**, PhD '31 with Adkins (now at U of Minnesota); '41, **Karl A. Folkers**, PhD '31 with McElvain (at Merck-now U of Texas); '42, **John L. Oncley**, PhD '32 with Williams (at MIT-now at U of Michigan); '44, **Arthur C. Cope**, PhD '32 with McElvain (at MIT until his death in '66); '57, **Gilbert J. Stork**, PhD '45 with McElvain (at Harvard-now Columbia); '58, **Carl Djerassi**, PhD '45 with Wilds (with CIBA, Wayne State-now Stanford and Syntex Corp.); '61, **Eugene van Tamelen**, PhD '50, Harvard with Stork (UW faculty, '50-'62-now Stanford).

This 'n That...

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4-page letter from his home in West Germany expressing enjoyment with nos. 27 and 28 and many reminiscences about staff and fellow students. He was favorably impressed by his profs at UW, except for one — who wasn't in the chem. dept. Re: The Centennial Picture of the Staff, he prefers his professors dressed in a businesslike manner. The obit of Perry Wilson struck a note since Fred enjoyed his bacto course, and that of Mel caused the recollection that, although he never had a course with him, Mel answered many questions and was very friendly. A recent visit to BASF in Ludwigshafen revealed impressive instrumental labs and beautifully landscaped grounds. BASF employs more than 52,000 people there.

Jeff Robbins, PhD '74 (Zimmerman), is at Stauffer Chemical Co. in Richmond, CA. He reports that fellow Badger Chemists, **Jerry Lisowski**, PhD '75 (Zimmerman), and **James Heather**, PhD '73 (Wilds), are there also.

Rex Robinson, PhD '29, was particularly interested in the sketch of Mel. "I owed him a lot and I have always been extremely grateful to him for all that he did for me. I feel saddened at his passing." Rex became a TA in quant in '25 when Mel took his PhD and became an instructor. Rex was still a TA when Lenher and Kemmerer died, leaving Mel to run the show. **Loren Hurd**, PhD '29 and Rex taught quant in the spring of '29 and Rex recalls **Fred Stare**, BS '31, **Konrad Krauskopf**, BA '31, and **John Dorsch**, BS '31. Rex began his long career at U of Washington in '29 (to '71). One of his students there was Irv Shain.

Gerry C. Rollefson, MS '60 (Willard), sent fuel but no news.

James Rosenow, BS '65, is a Senior Technologist at Conoco in Ponca City. He works in the Refining Technical Services Laboratory making water and oil mix. (Continued on page 23, col. 1)

This 'n That...

(Continued from page 22)

Robert W. Rosenthal, PhD '49, has begun his seventh year as Adjunct in Organic at Florida International U in Miami. The school recently added the first two years to become a four-year state university. During the past summer his family took a 9,000-mile auto trip to the Canadian Rockies and the Western U.S. His eldest son practices optometry in Tampa, the younger is a senior at Houston College of Optometry.

Donald Roth, PhD '44, and **Marie Mercury Roth**, PhD '52, have a daughter Joanne at the UW as a grad student in statistics. Marie recently completed a year at Marquette teaching two general chemistry courses, while don continues his work at the Wood VA Hospital where he heads the nephrology dept. and at the Medical College of Wisconsin where he is assoc. prof. of medicine. In her spare time Marie serves as Editor of the *Amalgamator*, the bulletin of the Milwaukee ACS section.

Robert C. Ryan, PhD '76, is a research chemist with Shell Development in Houston where Mrs. Ryan, former **Kathleen Haller**, MS '73, is a resident in internal medicine at Baylor College of Medicine.

Alexander Scheeline, PhD '78 (Walters), has left U of Iowa and is now asst. prof. of chem at U of Illinois.

Virginia Schelar, BS '47, PhD '69 (Hist. of Science), appears to be enjoying life in the sunny San Diego area, but close enough to the mountains for a hike in new-fallen snow. She is on the faculty of Grossmont College and serves as an alternate councilor for the San Diego ACS section.

Matthew F. Schlecht, BS '75, completed his PhD at Columbia in '80 where he studied with **Gilbert Stork**, PhD '45. He finished an NIH postdoc at Berkeley with Clayton Heathcock and is now with the Chem. Dept. at Polytech Institute of New York.

Louis Schmerling, BS '32, who retired from Universal Oil Products Co. in '77, has been writing on chemical subjects. His book, *Organic and Petroleum Chemistry for Non-Chemists*, was published by Penn-Well in Fall '81. The section on petroleum has a concise review of distillation, cracking, polymerization, alkylation of olefins and aromatics, isomerization, and reforming.

Henry D. Schreiber, PhD '76, is now assoc. prof. of chem. at Virginia Military Institute.

Truman Schwartz, PD with Ihde '79-80, spoke to the Minnesota ACS section last Nov. 17 on the subject, "Making Gold for Fun and Profit." Last summer Truman led a tour of science museums in England, France, and Germany.

Henry Shuey, PhD '44 (Bender), sent help from Huntsville, AL, where is with the Defense Contract of Rohm & Haas.

Mary Merritt Shultz, BS '70, is now asst. prof. of chem. at Tufts U.

Gary Simon, PhD '72 (Dahl), is Asst. Prof. of Medicine at George Washington U Medical Center.

Herbert J. Sipe Jr., PhD '69 (West), has been promoted to professor of chemistry and serves as departmental chairman at Hampden-Sydney College, VA. During '80-81 he spent a sabbatical year with Lowell Kispert at U of Alabama to work in their program of electron nuclear double resonance (ENDOR) spectroscopy.

Harold H. Snyder, BS '37, PhD '45, says, "I was fortunate to have him (Mel) as my major professor. Although retired for 3 years Hal still can't find the time to do all the reading he would like, particularly during the gardening season. He writes from Wilmington.

Ernest Spittler, S.J., PD '77-78 with Ihde, reports a busy schedule of courses at John Carroll U in Cleveland. He has been able to spend some time with **Alan Rocke**, PhD '75 (Hist. of Science) who is at Case Western Reserve.

Charlene Steinberg, BS '46, MS '48, chides the Ed. for moving her from Sheboygan to Manitowoc last year. She is definitely at UW-Sheboygan! She sent a fascinating letter about her reactions (generally unfavorable) to the '81 History of Science Congress at Bucharest. She did enjoy the post-Congress bus tour except for having a film removed from camera and destroyed because she had snapped the president's summer home. One of the fellow tourists, Shuntalo Ito of U of Tokio and a translator of Ihde's *Development of Modern Chemistry* sent greetings to the author via Charlene.

There is reference to **J. Vernon Steinle**, PhD '24, in editorial no. 3, but his letter of Dec. 7, '81 is worthy of further comment. After taking his third degree at UW, all under Louis Kahlenberg, Dr. Steinle served briefly on the faculty at Marquette, then joined S. C. Johnson & Son (Johnson Wax) in Racine. When hired, he was the entire lab staff except for 2 high school graduates. During the next 38 years the company grew by leaps and bounds and so did the lab which soon became the Research and Development Division. When Steinle reached retirement age in '63, R&D employed over 300 and Dr. Steinle was vice-president for the scientific program. Of special interest were his expeditions to Brazil, Poland, and Mexico to investigate new sources of wax, and participation in planning the Laboratory Tower created by Frank Lloyd Wright. Numerous Badgers have worked

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LARSEN REPRESENTS DEPARTMENT AT COUNCIL FOR CHEMICAL RESEARCH

Professor Edwin M. Larsen represented the UW chemistry department in the Council on Chemical Research when it met in Rochester, NY in November, 1981. The Council, for the uninitiated, is an organization chartered in Delaware in 1980, which is set up to facilitate the support and management of academic research through industrial cooperation. Membership is made up of universities (67 last Nov.) and industrial firms (19). Each member is entitled to one vote but has one delegate and three alternates. There is a governing board of 18, nine from industry, nine from the universities — an Executive Committee of 6, a science advisory board and 6 standing committees.

A Chemical and Engineering Fund will handle distribution of funds to member universities. Industry contributes to the Fund according to a formula based on number of BS, MS, and PhD employees. Universities will receive grants from the Fund on the basis of a formula based on the number of chemistry and chemical engineering graduates.

Wisconsin graduates or onetime faculty colleagues in attendance were: R. Alberty, dean MIT; J. D'Ianni, past president, ACS; Al Frisque, vice-pres., Nalco Chem; Milt Glick, chairman, Wayne State; John Margrave, v-p, Rice U; R. S. Nicholson, Head-Chem NSF; K. Schug, chairman IIT; Harry Schultz, chairman, U of Miami; and I. Tinoco, chairman, U of California-Berkeley; Don Wetlauffer, chairman, U of Delaware.

PROMOTIONS AND RETIREMENTS

Changes in faculty status voted by the Regents in June included:

F. Fleming Crim, to associate professor (includes tenure)

John Ferry, to emeritus professor

Many Badger Chemists will also recognize the names of Van R. Potter, biochemistry PhD in '38 and longtime Professor of Oncology in the Medical School's McArdle Laboratory for Cancer Research, and of Fred Harvey Harrington, on the history faculty from '37 and President of the UW from '62 until '70. Both retired in June '82.

GETTING THE TEACHING JOB DONE

As has been the norm in the last two decades, the chemistry faculty has been dependent on visiting professors and temporary appointments of local chemists for help in teaching the large number of undergraduates taking courses in the department. Among those performing such services during the past year are:

Gary Bender has taught course 221, introductory analytical, during the past two summers. Gary is on the chemistry faculty at UW-La Crosse.

Alanah Fitch is a Lecturer in analytical chemistry this fall. She has a PhD in soils.

Kenneth J. Haller is on the Specialist Staff as director of x-ray crystallography.

Kresimir Humski taught a summer session organic course and continues during the fall semester. He is a member of the faculty of the Technical University in Zagreb, Hungary.

William B. Jensen, PhD '82, served as Lecturer in the freshman chemistry program last summer and continues in this capacity this fall.

C. Marvin Lang, MS '64, (PhD Wyoming '70), taught in the freshman program last summer. He is regularly on the faculty of UW-Stevens Point.

David W. Mehaffy, PhD '81, is project assistant in the Instrumental Center.

Richard A. Porter, of the U of Idaho, served in the past year as project coordinator of the Instrumental Center.

Rodney J. Schreiner, PhD '82, stays at the UW as a Lecturer in freshman chemistry.

Lutz F. Tietze is a Visiting Professor in organic chemistry this fall. He is a faculty member at Göttingen.

This 'n That...

(Continued from page 23)

there; the present Vice-President for R&D is Donald A. Boyske, a UW biochem, PhD of '54.

Gilbert Stork, PhD '45 (McElvain), was awarded the Willard Gibbs Medal (of the Chicago ACS section) last May for "outstanding leadership in synthetic organic chemistry." This is the latest in the series of prestigious awards which have come his way for his work at Harvard and Columbia on the total synthesis of complex natural compounds, the development of unique synthetic methods, and the study of reaction mechanisms. Earlier this year he gave the Edgar Fahs Smith Memorial Lecture at U of Penn on "Problems and Progress in Organic Synthesis." Born in Belgium in '21, Gil received his early education in France, took his BS at U of Florida in '21 and his doctorate at the

UW. For a fuller amount of his life, work and influence you are referred to the two-page account of his scientific work in CEN, May 24, '82, p. 37 and to the much fuller sketch in *Aldrichimica Acta*, vol. 15, no. 1, '82, the house organ of the Aldrich Chemical Co. of Milwaukee.

Heinz Stucki, PhD '72, is with American Cyanamid in New Jersey. Thanks for you know what — Ed.

Glenn R. Svoboda, BS '52 (PhD '60 Pharmaceutical Chem), enclosed a strange piece on one Dr. Rouchas with his annual help for BC. Has anyone else encountered Dr. R.? Glenn is Vice-President for R&D at Freeman Chemical, Port Washington, WI.

Marjorie Huber Svoboda, BS '43, MS '47 (Bender), (PhD Biochem, Indiana U, '75), of U North Carolina was in Madison in June '81 to attend the Peptide Symposium but lacked time to stop by.

Alan L. Taber, BS '73, is now practicing medicine in Berlin, WI where his wife, a '71 grad, is a hospital pharmacist. Thanks for remembering the Endowment Fund.

Odell Taliaferro, BS '33, received a Martin Luther King Humanitarian Award in Nov. '81. The presentation was made at an NAACP Freedom Fund Banquet held at the Inn on the Park with more than 300 in attendance. Tally, who was department Lecture Demonstrator from '44 to '74, humbly remarked, "I was just a small cog in a wheel." However, his work for housing desegregation is well known in the Madison community. He also served as president of the Madison NAACP for a term in the 40s and two terms in the '60s.

Robert F. Taylor, PhD '41, builds on **Amby Nichols**, PhD '39, suggestion for an endowment fund by suggesting a Dollar-A-Year Club for support for BS — dues to increase by one dollar each year after graduation, income to be used in the early years for current expenses — later going into a kitty for future publications. "At today's interest rates, it should be only a short time before the editor could spend the winter in Bermuda." Sounds like a great idea! Ed. Bob showed his sincerity by enclosing a \$40 dollar check. He further remarked, "...the regimen we had in Madison was excellent training for anything we undertook. If nothing else it gave us a cadre of friends that has worn exceedingly well." Bob is Director of the Management Center at the College of St. Thomas in St. Paul.

Charles C. Templeton, PhD '48 (Hall), was a Madison visitor in August, the first time in many years. Ed Larsen and Ye Ed cooperated in giving him a Cook's Tour of the Daniels-Mathews Chem. Bldg. which he had never seen. Chuck took early retirement from Shell on account of severe arthritis but certainly keeps busy in

MOST CITED SCIENTISTS

Three members of the chemistry faculty were included in a list of 1,000 most cited scientists compiled by the Philadelphia-based Institute for Scientific Information. They are: Lawrence F. Dahl, Barry M. Trost, and Howard E. Zimmerman.

The list is a computer-generated compilation of international scientists whose publications were most frequently cited in publications of other scientists between '65 and '78. UW-Madison ranked third among world universities in number of scientists on the list with 22. Harvard had 43, Stanford 35, University of London, with several college units, also had 22.

Chemist types on the UW list included: Hector DeLuca of biochem; Nobelist Howard Temin, Van R. Potter, Paul Carbone, James and Elizabeth Miller, and Henry Pitot — all of the McArdle Institute for Cancer Research; John W. Porter of physiological chem; and David Green and Henry Lardy of the Institute for Enzyme Research.

MADISON CRIME

In recent *Badger Chemists* we have commented on the changing characteristics of Madison which is no longer the charming, easy-going, safe place of yesteryear. Some recent statistics reflect a horrendous change over the past 20 years when population has grown from 126,000 to 170,000, a rise of 35%.

Crime	1960	1980
Burglary	347	3,646
Robbery	23	244
Rape	2	75
Auto theft	162	590
Aggravated Assault	9	111
Part I Crimes	2,308	15,820

While the state as a whole shows substantial increases in these crimes, the percentage increase is strikingly less.

the Houston community. In his letter in September we were thanked for the tour and were told that, "It is a school of which I am proud to be an alumnus."

Glenn Terry, PhD '51, who is still with the Nuclear Regulatory Commission, wonders about future budgets in the agency.

S. Milton Thomsen, PhD '37, sends sugar from Pennington, NJ without news.

Joseph Timko, PD '75-77 (Trost), has been in process research at Upjohn in Kalamazoo, MI since '77. He continues to hear good comments on the IUPAC

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organic meeting in Madison in summer '80.

Laren M. Tolbert, PhD '74, is asst. prof. of chem. at U of Kentucky.

Roland Trytten, PhD '41 (Sorum), continues teaching the soph quant course at UW-Stevens Point. In recent years he has been dabbling in computer programs, slide-tape presentations of statistics and acid-base equilibria, and video-tape lectures. He retires in "Orwellian 1984."

Charles Tullock, PhD '38, still in Wilmington, has just returned from a second visit to China when BC arrived last fall. Charlie reports that their universities appear to be in full operation again — a hopeful observation.

Doyle C. Udy, PhD '50, is now receiving BC after a lapse of several years, thanks to his major professor, John Ferry. Doyle is in Boulder, CO.

Larry Viehland PhD '73 (Curtiss), is still at Parks College of St. Louis U. **Claudia (Kim) Viehland**, MS '72 (Nelsen), teaches three levels of high school chem. at Chaminade College Prep. Both are active in the award-winning St. Louis section of ACS. Kim writes a newsletter for teachers in the area; Larry coordinates a chem contest and awards night. Larry spoke at a Gordon Conference in June.

Heather (Tompkins) Vlasak, BS '70, and her husband Allan gave up city life and desk jobs to return to his family farm near Kendall, WI. They operate a 58 cow dairy farm and thoroughly enjoy life in the country.

Thomas G. Waddell, BS '66 (PhD '69 UCLA), was promoted to full professor at U of Tennessee-Chattanooga in '81 with the title of Alumni Distinguished Service Professor. He has been at Tenn Since '71, to correct a gaffe by Ye Ed last issue.

Klaus P. Wagner, PhD '74 (Treichel), is now associate (chemistry), Polymers R&D, Mobile Chemical, Edison, NJ.

Carol (Hermann) Wallace, PhD '49, had a visit with Prof. Willard in Tulsa last winter when he gave several ACS lectures on the Chisholm Circuit. The Wallaces were planning a move to the Boston area where her husband will start a private practice (Psychiatry) part time and work with a Christian halfway house. Carol has not been working in chemistry in Tulsa but has been a volunteer worker in a Christian school for handicapped children.

Philip Walters, PhD '42, send some of the useful stuff from Tucson without a single word about himself.

Sue Waraczynski, BA '75 (MD Med. College of Wis. '79), wrote last November that she is finishing her final year of residency at Indiana U and hopes to be practicing in Wisconsin by now. Several UW chem classmates of hers who went on to

MCOW (formerly Marquette U Med School) include **Dave Brown**, **Doug Jackson** and **Bob Kettler**.

Mark P. Warchol, PhD '78, writes from Houston that he enjoys the BC and hopes it keeps on coming. It will. Ed. Many thanks!

Dale Warren, PD '71-72 (Ihde), sends greetings from Western State U in Kalamazoo, MI.

Paul Weeks, PhD '73 (Vedejs), is at Pfizer Central Research in Groton, CT. Other Badgers there include: **Gene M. Bright**, PhD '70; **Bruce M. Johnson**, BS '66; **Michael S. Kellogg**, BS '68; **Lawrence Melvin**, PhD '73; **Robert F. Myers**, PhD '70; and **Jeffrey A. Richards**, MS '69, PhD '75. Paul also lists S. Kadin and B.E. Tate but we fail to find them in our records — if they are truly Badgers we apologize and hope they will check in.

Donald B. Wetlaufer, BS '46 (PhD Biochem '54), has been du Pont Professor and chairman of the chem. dept. at U of Delaware since '75. Prior to that he spent 12 years on the biochem faculty at U Minnesota Medical School. He reports having fun finding out how proteins get their 3-D structure.

James Whorton, PhD '69 (Hist. of Science), recently saw publication of his second book, *Crusaders for Fitness: The History of American Health Reformers*, by Princeton U Press. Jim is Assoc. Prof. of Biomedical History at U of Washington in Seattle. His earlier book, *Before Silent Spring: Pesticides and Public Health in Pre-DDT America* (Princeton, 1974) has had excellent reviews and frequent citations.

Donald R. Williams, BS '37, writes from Sparta, WI, "When Ed Larsen and I were getting our basic chemistry education Mel was certainly my guiding light. I earned money running analyses on lake bottoms for his limnology work to supplement the support from my farmer father. It was still depression. He also helped this farm boy into Alpha Chi Sigma. I am sorry he could never completely know how his life profoundly affected many others."

John P. Williams, PD '75-76 (Treichel), is in his third year in the professorship created at U of Cincinnati from the estate of Ralph E. Oesper, longtime professor at UC of analytical chemistry and historian of the subject. John's responsibilities include managing the Oesper Memorial Lecture Series — last year the honoree was Melvin Calvin.

A letter in *The Hexagon* (July '82, p. 59) expanded on an earlier article on a foreign alumni chapter of AXE among American soldiers at Chaumont, France in 1918. Reporter for that meeting was **Robert V. Williamson**, PhD '23. Williamson returned to the UW after the war to complete his degree with Prof. Mathews.

In Madison, too, he met and married **Catherine Custis Fletcher**, MS '20 (Adkins). *The Hexagon* letter was written by Henry W. Anderson of Houston who married the daughter born to Robert and Catherine while Bob was completing his grad work in Madison. Dr. Williamson did research for du Pont, the A.O. Smith Company in Milwaukee, the Shevlin-Hixon Lumber Company in St. Cloud, CA, and the USDA Regional Lab in Peoria. He died in 1956 shortly after retirement.

Robert A. Willihnganz, BS '37 (DJ Wayne St.), writes from Rochester, NY that his principal activities are in environmental law, as corporate counsel for several industrial firms, and as a member of the Michigan Hazardous Waste Management Planning Committee. Bob inquires if we ever hear from **Eugene Brimm**, BS '38 (PhD '40 Illinois). Sorry, we don't have his whereabouts.

Jane Buttles Wilson, BS '25, reported no news but sent a check which was placed in the endowment fund. She lives at 250 East Alameda, Santa Fe, NM.

R. Scott Wilson, currently a grad student, was selected as the Alpha Chi Sigma Scholar for 1982 at the 36th Biennial Conclave of the fraternity at Columbia, MO in August.

Lloyd L. Withrow, PhD '25, was honored in Feb. '80 when he gave an invited lecture before the Engine Group at the an-



Withrow receiving 50-year membership ACS pin and certificate from chairman of the Detroit Section, 1976.

nual meeting of the Society of Automotive Engineers. The following May he was invited to speak to technical personnel of General Motors Research Labs, the laboratory with which he was associated from '26 to '63.

Robert R. Wood, PhD '78 (Curtiss), is supervisor of the basic data section of the Chem. Engineering Dept. of Shell Development. The group measures and predicts thermophysical properties for use by design engineers. Bob confesses the property calculations are somewhat different than those he made at TCI.

Gary P. Wulfsberg, PhD '71, is assoc. prof. at Middle Tennessee State U.

This 'n' That — 2

Eric J. Amis, formerly of Prof. Yu's group, returned to Madison in August from 2 years with the Natl. Bureau of Standards. He is undertaking cooperative work with Prof. Ferry and Dr. Han at NBS. Daughter Marilyn enters medical school at the UW.

Philip Boudjouk, PhD '71, is now full Professor at North Dakota State U.

Gordon Foster, BS '41, PhD '44, was a Wisconsin visitor last June when he returned for a visit to his childhood hometown of Stanley. While in Madison the Fosters saw Profs. Williams and Olaf Hougen of Chem. Engr. They also stopped at the Ihdes—Olive Ihde was one of Gordon's teachers at Stanley. After completing his work with Prof. Daniels, Gordon was with du Pont and, after '52, with Shell. The Fosters (his wife was a student of Emma Fisk in botany) live in Houston.

Sheldon Hochheiser completed his doctorate in history of science in late October, presenting a dissertation on the history of synthetic food colors. He will join Rohm and Haas at the beginning of January after he has completed his work as TA in Chem 104. Rohm and Haas will celebrate its 75th year as a corporate entity two years hence. Shelly will undertake the preparation of a history of the company.

Roberta Jacques, BS '72, is now in product development in the Surgical Products Div. of 3M. Earlier she had been involved in the development of the microfilm dust cloth.

Reese Jenkins, PhD '66 (Hist. of Science), at Rutgers and editor of the Edison Papers reports that the year saw the addition of 3 new staff members and "Little Al," a microcomputer fondly named after Edison's childhood nickname.

Russell Johnsen, PhD '51 (Adkins), reports a pleasant year with a new vacation house at the edge of St. Marks Wildlife Refuge. Their son Peter makes life exciting for his parents by doing field work on sharks. Russ has been at Florida State U since leaving Wisconsin.

Richard Juday, PhD '43, writes from U Montana, "All I know about trout fishing I learned from Mel."

Wing K. Kam, BS '70, MS '71 (PhD pharmacology and MD, Case Western Reserve), visited Prof. Willard in May '82 while enroute to the third year of his NIH fellowship at the U of California Medical School. His research is on hepatitis B virus and liver cancer.

Gary E. Keck, PhD '75 (Zimmerman), promoted to Assoc. Prof. at U of Utah.

Kenneth Keller, BS '51, writes that he has retired from the Veterans Administra-

tion Hospital (Madison). He plans on doing some freelance writing.

Robert A. Keller, BS '51, MD '58, sends "thanks" for BC and says he reads it "cover to cover."

Leon R. Kiley, MS '50 (Sorum), is manager of quality assurance with Dow USA.

Toshiaki Kitano and **Qi-jiang Gu** joined Prof. Yu's research group in '81 and **Icksam Noh**, from Inha U in Incheon, Korea left the group in August '82 after 2 years. Noh's oldest son remains in Madison as a UW freshman, Kitano is with Toyohashi U of Technology; Gu is from the People's Republic of China.

Steve Lee, PhD '81 (Wright), is a postdoc with Charles Parmenter at U of Indiana.

Bruno Linder, res. assoc. '55-57, is now a professor chemistry at Florida State University.

R. Daniel Little, PhD '73, promoted to assoc. prof. at U of California-Santa Barbara.

Arthur Lohr, PhD '43 (Adkins), sends greetings from Wilmington. Art is retired from Hercules.

James E. Mars, BS '54, sends a check from Vashon, WA, but no news.

Julie McCabe, BS '79, is a grad student in analytical chem. at Minnesota.

Keith McCallum, PhD '50, reports he treasures the last BC with its features on Joe Hirschfelder, "any my own most kindly mentor, Professor Meloche."

Gerald Ray Miller, BS '58 (PhD '62 U of IL), says "Thanks! Keep them coming!" He is on the faculty at U of Maryland.

Max W. Miller, PhD '50 (Johnson) and **Virginia S. Dickmann Miller**, MS '48, write from Storrs, CT where Max is Prof. of Medicinal Chem in the School of Pharmacy, U of Connecticut.

Nels Minne, PhD '32, sends best wishes from Winona, MN where Nels lives after retiring from the presidency of Winona State.

Stanley Mirviss, PhD '51 (McElvain), sends "lots of good wishes. . .to faculty and staff."

Marjorie Moldenhauer, BS '52, completed her endowment pledge almost at once. Thanks! She doesn't mention if she has completed her engineering degree.

Stanford Moore, PhD '38 (Adkins and Link), sent this brief note with his contribution, "An excellently edited Newsletter." We are saddened now to refer you to In Memoriam. Ed.

John H. Munch, PhD '66, didn't remember getting BC before the '81 issue. He sent a note with sweetener so we sent him some of the issues he missed. John is

with the Petrolite Corp. in St. Louis.

Philip T. Newsome, PhD '26, sends regards to Jack Williams and Harvey Sorum from Rochester, NY.

Morris Nielsen, PhD '41 (Holt), says "Let's keep it going."

Jo Ann Molin-Case Norris, PhD '67, enjoys hearing news of the department.

Dean L. Owens, BS '42, enjoys retirement, but with some consulting which permits golf, skiing, and some travel.

Richard M. Pagni, PhD '68 (Zimmerman), promoted to full prof. at U of Tennessee.

David Pelle, MS '71, who was at Ohmite Mfg. Co. is now Quality Control Mgr. at Schering-Plough in St. Louis.

Laura Porter, PhD '81 (Wright) is with American Cyanamid in Stamford.

Michael Ryan, PhD '73, recently completed a sabbatical year at U of Iowa and is back at Marquette.

Matthew F. Schlecht, BS '75, (PhD '80, Columbia) is assistant professor at the Polytechnic Institute in New York. Since his letter came from Berkeley the editor surmises that he has recently completed a postdoc there.

Willard F. Sprengman, PhD '35 (Hall), is in his 10th year of retirement from du Pont. He has become an ardent lawn bowler; spends 8 months in Wilmington, then to Florida where he plays at the Sarasota Lawn Bowling Club. He was "Sorry to learn of the death of Villiers Meloche—a fine man and a fine teacher."

Charles H. Stammer, PhD '52 (McElvain), went to Merck after graduation and worked in **Karl Folkers**, PhD '31 (Adkins) group. A desire to design his own research led him to join the U of Georgia in '62. His work on amino acid and peptide chemistry has attracted NIH funding and is leading to the design of medically useful peptides. With his wife, Shirley, and two children, Chuck has never regretted the move.

Fred Stare, BS '31, sends regards and help from Harvard without comment on retirement activities.

Jack Steehler, a grad student of John Wright, is the recipient of a one-year fellowship awarded by the ACS Analytical Division. The Division makes four such national awards to the top grad students who have demonstrated exceptional ability in creative research. Jack is developing new methods for high resolution, site selective, non-linear spectroscopies. The fellowships are sponsored by Procter & Gamble.

Laren M. Tolbert, PhD '75, promoted to assoc. prof. at U of Kentucky.

William W. Willis Jr., PhD '82 (Reich), is with Chevron Research in Richmond, CA.

NEW BADGER CHEMISTS

Listed below are the names of 29 students who received the bachelor's degree between July 1, 1981 and June 30, 1982. We do not have, at this moment, information about industrial placements, but those students who appear in continuing chemical studies at the graduate level are indicated. We have no up-to-date information about placements of MS and PhD students who finished during this period, but list them by name with their major professor.

Bachelor's Degrees

BEHLING, Patricia A.
BEINE, Laurie B.
DISKOBIING, Diane M.
BOE, Donald P.
BUTKIEWICZ, Russell E.
CHERNEY, Jeffery J.
DENISSEN, Jon F.
GEGNER, Julie A.
GRABINSKI, Archibald A.
JACOBSEN, William N.
KEPPLINGER, John P.
KUESTER, Paula L., Organic, Rochester
LARSON, Steven J.
LASSILA, Kevin R.
LAUDON, Leslie S.
LEITH, Phillip G.
LEWIS, Mark A.
MICKLE, David C.
MORRIS, Jeffrey B., Physical, Colorado

MORRISSEY, Michael M., Organic, Caltech
OGORZALEK, Rachel R.
QUALY, Richard J., UW-Madison
RASMUSSEN, Rodney J.
RIDOUT, Diane L., Organic, Illinois
SCHLAGENHAFT, Mark S.
SCHMIDT, Jeffrey R.
SCHRADER, Tony P.
SPIGLANIN, Robert J.
VINEY, Jeanette M., Medicine, UW-Madison

Master's Degrees

ARNELLE, Derrick R.	Casey
HAN, Chao-Qi	Casey
HORN, Joel S.	Weinhold
KRAUS, Richard B.	Schrag
LENTZ, Barbara L.	Wirth
MILLS, Pamela A.	Record
NAKATANI, Alan I.	Yu
NORMAN, John A. T.	West
PEARSON, Dale J.	Crim
STOCKTON, Frederick R.	Goering
TESTEN, Mary E.	Shakhashiri
VARIE, David L.	Vedejs
WIGGINS, Jonathan M.	Goering

Doctoral Degrees

BLOOD, Jeffrey C.	Zimmerman
BUNCE, Richard A.	Zimmerman
BUSCH, Robert W.	Evans
CALDWELL, Charles G.	Trost
CHAN, Dominic Ming-Tak	Trost
DAVID, Lawrence D.	West
DOLPHIN, John M.	Vedejs
FARNSWORTH, Paul B.	Walters
FIVIZZANI, Kenneth P.	Treichel

FORTUNAK, Joseph M.	Trost
FREIER, David G.	Fenske
GANNETT, Peter Mico	Nelsen
GORDON, Douglas J.	Fenske
GREER, Edward C.	Taylor
HAESE, Nathan N.	Taylor
HELMER, Bradley J.	West
JENSEN, William B.	Larsen
JOHNSON, Bruce R.	Hirschfelder
JOHNSON, Robert E.	Dahl
JORGENSEN, John A.	West
KAMYKOWSKI, Gregory	Ferry
KANTNER, Steven S.	Goering
KLUN, Thomas P.	Trost
KOMAR, David A.	Treichel
KREIL, Dennis J.	Zimmerman
LAVOIE, Alvin C.	Trost
LEE, Steven H.	Wright
LEWCHENKO, Victor	Certain
MAJ, Joseph J.	Dahl
MEHAFFY, David W.	Taylor
MEIER, Guy P.	Vedejs
NELSON, Lawrence L.	Dahl
NESTLER, F. Henry M.	Ferry
OLESIK, John W.	Walters
ORNSTEIN, Paul L.	Trost
ORTMAN, Mark S.	Larsen
PENN, John H.	Zimmerman
PIATT, David M.	Yu
PORTER, Laura C.	Wright
POWELL, Dennis W.	Vedejs
ROSENHEIN, Laurence D.	Treichel
ROSKA, Fred J.	F.
ROSSEEL, Thomas M.	Taylor
SCHMUFF, Norman R.	Trost
SCHREINER, Rodney	Shakhashiri
STEFFEK, Daniel J.	Nelsen
VANNET, Marcia D.	Treichel
WASHBURN, Donald N.	Walters
WEINSTOCK, Robert B.	Weinhold
WILLIS, William W. Jr.	Reich

LATE SUMMARIES

Politics. (Update from p. 2). Democrats regained the statehouse on November 2 by electing Anthony Earl governor. Earl's victory was impressive — over 60 percent of the vote. Democrats also took the other state offices. Badger Chemist Douglas LaFollette was returned to the Secretary of State position he held from '74 to '78. The Democratic majority in the Assembly was retained. In the State Senate there is the possibility of a 16-16 tie, depending on the outcome of a recount in one district.

At the Congressional level, there was no change in the 5-4 advantage the Democrats have held in the House of Representatives. Robert Kastenmeier, who has held the 2nd District (Madison area) seat since '58, appeared to face serious opposition but still won by a strong margin. William Proxmire continues in the Senate seat he first won in '57 in the election to fill the one made vacant by the death of Joseph McCarthy. Proxmire attracted national attention in the '82 campaign by accepting

no campaign contributions, while limiting his own expenditures to \$150 in an election in which numerous senatorial candidates spent millions.

Sports. Badgers continue to do well in the non-income sports and hockey but keep stumbling in football and basketball. The 1981 Badgers finally had a winning football season and a bowl game (which they lost to Tennessee). The season was a major success in some respects since, for the first time in history the Badgers beat Michigan, Purdue, and Ohio State in the same season, but lost to lesser teams. In '82 the Badgers lost their opener at Michigan, then beat Ohio State, the first back-to-back victories against OSU in history and the first win in Columbus since '18. The Badgers scored against OSU during their first possession, then played tight defense for three quarters. A final OSU drive was stopped when a field goal was missed with eight minutes to play. Thereupon, the Badger offense took a leaf from the Ohio State playbook — 4 yards and a cloud of dust — and ground out 8 minutes without giving up the ball.

Subsequent Saturdays have been less satisfactory as games were lost to Illinois and Indiana by field goals in the last few seconds.

Basketball and hockey have new coaches — basketball because Coffield failed to produce a winner, hockey because coach Johnson accepted an offer from the professional Calgary Flames. Steve Yoder, a successful basketball coach with Evansville (Indiana) in the Mid-America League will attempt to turn things around. Jeff Sauer will seek to maintain the successful hockey program which Bob Johnson developed over the past decade. Sauer served as an assistant to Johnson before coaching at Colorado College so he is familiar with the hockey tradition at Wisconsin (3 NCAA champions during the Johnson era).

The men's cross country team won its fifth Big Ten championship in six years at Iowa City last weekend. Wisconsin placed 5 runners in the first 9 for a winning score of 29 points; runner-up Michigan had a team score of 62, third place. Minnesota had 100.

DEPARTMENTAL HISTORY NEARING COMPLETION

Phillip Certain

The history of the Chemistry Department being written by Aaron Ihde is now at the point where the end of writing is apparent on the horizon. It will be a comprehensive book, dealing with instruction in chemistry at the UW from 1854 when S. Pearl Lathrop taught two seniors in the summer term to the near present. It deals in depth with the beginnings of the major in chemistry, the beginnings of graduate studies, the promotion and demotion of Louis Kahlenberg, the 33-year chairmanship of J. H. Mathews, and the flow of students through the department into careers in industry, education, and government. There will be numerous pictures of faculty, students, successive buildings, laboratories, and campus scenes. The book also relates the UW chemistry program to other sciences at the university, to the growth of chemical education in America, and to the role of chemistry in American industry. The analysis will end with the Daniels' chairmanship (1959), except for a terminal chapter dealing concisely with the department in the last 20 years.

The problem of financing publication of the book is not yet fully resolved but there are signs that the problem is resolvable. In order to plan in this direction it

Badger Chemist is made possible as a result of the financial assistance by friends of the Chemistry Department (see editorial, p. 2). Costs continue increasing. Your continuing financial support is not only appreciated but necessary to keep the editor from such troubles as faced debtors in the Middle Ages. Send appropriate bail offerings. Please make checks payable to Wisconsin Foundation—Badger Chemist Fund. Please also send news. If broke, send news anyhow, to:

**Aaron J. Ihde, Editor
Badger Chemist
Department of Chemistry
1101 University Avenue
Madison, WI 53706**

would be helpful if we had an idea of probable sales of the history. On the back page you will find a form which can be clipped, filled out and mailed to the department if you are interested in reserving a copy. We anticipate that the price will fall between \$20 and \$25, probably with a reduced price for pre-publication orders. Do not send money at this time. Such an indication of probable sales will be useful in negotiation of the contract for publication and should help to keep the price as low as possible.

Ihde, at the time the future of his projected history of Chemistry Department was in limbo, took what had originally been intended to be Chapter 1 — An Overview — rewrote and expanded it somewhat, and submitted it to the editor of the Wisconsin Academy *Transactions*. It was accepted and is now published as "Chemistry at the University of Wisconsin, 1848-1980" in the *Transactions of the Wisconsin Academy of Sciences, Arts, and Letters*, 69, 135-152 (1982). Unfortunately, reprints are unavailable but copies of the *Transactions* are exchanged with all state academies of science and are available in many university libraries.

DEPARTMENTAL HISTORY

Pre-Publication Order Form

Clip and return to:

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Madison, WI 53706

Do not send money at this time.

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City, State, Zip _____

Phone no. _____