The purpose of the AIUC is to maintain close ties between the current and past members of the Department of Chemistry at Bloomington. Members include present and past faculty, non-academic staff, postdoctorals, graduate students, chemistry majors, and others who have close ties with the Department. The annual Newsletter is produced to implement this purpose. The cost is borne by an anonymous gift and the AIUC Fund which is maintained through contributions from the alumni.

Social Hours at ACS Meetings

April, 1972
Statler-Hilton Hotel, Boston

The Spring meeting of the ACS saw the Social Hour for the AIUC held on Wednesday, April 12, at the Statler-Hilton Hotel. The local faculty was conspicuously missing but we were fortunate that Bob ROWELL (PhD'60) had planned to attend and was willing to serve as coordinator and host. It was a congenial group of thirteen who had a good chance to visit together and the conversation was good. Those attending were Eli ARONOFF (PhD'54), Glenn BERCHTOLD (PhD'59) from MIT, Max BROCKMAN (PhD'46) of the U. S. Army Natick Labs, Mary K. CAMPBELL (PhD'66) on the faculty at Mount Holyoke, Al COLLINS from Sam Houston State University, Ronald COLLINS (PhD'62) and John MOORE, faculty from Eastern Michigan University, William HODES (PhD'52) from Polaroid, Joe LEAL (PhD'53) from Celanese, Rodney MOSS (PhD'51) still with Dow, Brown MURR (PhD'62) from Johns Hopkins, and Anthony WILDE (PhD'59) from the Army Research.
Center. Dr. Day and some other members of the faculty were unable to attend owing to the conflict with the FASEB meeting at Atlantic City. Other faculty members either could not leave Bloomington or they had to return before the Social Hour was held.

August, 1972
Belmont Plaza Hotel, New York

The Fall ACS Meeting Social Hour at the Belmont Plaza Hotel in New York on August 29 attracted a larger group of AIUC members and friends gathering for news and conversation. Among those dropping by were J-Bson BREDBURG (Post-PhD'61-62) who continues his affiliation with Neste Oy in Finland, George BULBENKO (PhD'58) from Biomedix, Inc., Mary K. CAMPBELL (PhD'66) from Mt. Holyoke, Joseph DEC (AB'36) who is with Johns-Manville Research, Wilson DECCAMP (BS'60) who is now at the National Research Council in Ottawa, Bruce DUNLAP (PhD'68) who is teaching at the University of South Carolina, Jerome GENZER (AM'48) from Warner-Lambert, Jack GILL (PhD'63) who has moved to Autolab/Spectra Physics in San Francisco, Stanley GOLDBERG (PhD'57) from Louisiana State University in New Orleans, Frederick JACOBY (MS'53) from Eastman Kodak, Philip KELLER (PhD'66) from the University of Arizona, Ted LARGMAN (PhD'52) from Allied Chemical, Joe LEAL (PhD'53) from Celanese Research in Summit, Fritz MARQUARDT (PhD'60) who now lives in Summit, John McDowell (PhD'60) and his wife from Arlington, Texas. Wendell MEYER (PhD'62) from Dow also found his way to the gathering, as did Robert ROWELL (PhD'60) from the University of Massachusetts, Stewart SCHNELLER (PhD'68) and his wife from the University of South Florida, Richard WEDDLETON (PhD'65) from General Electric, Kenneth West (PhD'68) from St. Lawrence University (Canton, N. Y.). Ruth and Dale FISHER (PhD'57), AIUC President from Oak Ridge, were present as were Drs. Day, Cordes, Carmack, and Wenkert to represent the current faculty and Sharad Sathe and B. L. Mylari representing the current students. It was also a pleasure to have A. P. Lien with Allied Chemicals, and a long-time friend of the Department visit our Social Hour.
about the Department are the annual listing of Scientific Publications of the Department of Chemistry and the brochure Chemistry which is used at approximately two year intervals.

The former is particularly useful as a convenient and comprehensive record of virtually all the scientific journal articles and books and book chapters produced by the faculty, students, and others associated with the Department. The first issue was in 1952. The latter gives general information concerning the faculty, opportunities for study and research, and resources both in the Department and in the total academic community.

Interested AIUC members and others are invited to request copies.

**AIUC Newsletter Staff**

Several persons contributed to the preparation of this Newsletter. Those who are most responsible for omissions, errors, and some delay in getting it finished before the end of 1972 are Elizabeth Greene, Editor, and Harry G. Day, Consultant and Contributor.

**Treasurer's Report**

The Treasurer’s report continues to be not very encouraging concerning the receipt of contributions to cover the costs of producing the newsletter. It is only through the help of an anonymous donor and the Department reproducing it that we can send you this issue of the Newsletter.

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Election of Officers for 1972-73

At the New York meeting Ted LARGMAN (PhD'52) became the President, Richard WELLS (PhD'62) was made President-Elect, and Dale FISHER became the immediate Past-President. H. G. Day was continued as Secretary-Treasurer and Elizabeth Greene was continued as Editor of the AIUC Newsletter.

**FACULTY NEWS**

In 1971-72 there were 45 members of the faculty. Four (DAY, MERRITT, SCHAAP, SHULL) also served in administration positions in the University. Two (ANDERSON, TEBBE) were visiting professors. No new faculty were appointed and none retired.

After serving five years in the chairmanship, Dr. Riley SCHAFFNER was granted relief and Dr. Eugene CORDES became the chairman in July. Dr. CORDES came to the Department as Instructor in 1962. This was within a few months after receiving his Ph.D. degree at Brandeis. Within six years he became full professor and he has distinguished himself in various ways. He was soon given a USPHS Career Development Award and in due course the University gave him special recognition for outstanding teaching. Surely he is one of the most dynamic, resourceful, and productive chairmen in the University today, and he is only 37.

Nearly all the faculty members have been uniquely productive and active in teaching, research, or in some other way this year. But only a few instances will be reported at this time:

Adam ALLERHAND has been having outstanding success in the application of nuclear magnetic resonance and relaxation to chemical and biological systems. Among his various contributions in this area was his lecture in October at the University of Illinois on **13C Fourier Transform NMR in Chemistry and Biology**.

Ernest CAMPAIGNNE is serving on the National Academy of Sciences Committee on IUPAC, and the International Ex-
change of Persons Committee. This fall the IUPAC responsibilities took him to Europe for three weeks. The trip included the presentation of a paper at the Third European Medicinal Chemistry Symposium in Milan.

Harry G. DAY ended his year as President of the American Institute of Nutrition. This included active participation in the Western Hemisphere Nutrition Congress at Miami in September, 1971, and the International Nutrition Congress in Mexico City in September, 1972. Also, his activities included an appearance before the House Appropriations Subcommittee on Labor, Education, and Welfare in May to testify on the appropriations bill for the National Institutes of Health. Because he reached the age of 65 he retired from his associate deanship in the Office for Research and Advanced Studies.

Henry R. MAHLER has continued to be a mainspring of thought and action in mitochondrial biochemistry. Looking forward, in January, 1973, he will be a speaker in the Distinguished Scientists Series of the Virginia Commonwealth University at Richmond. His topic will be Biogenetic Autonomy of Yeast Mitochondria.

Harrison SHULL gave up his deanship of the Graduate School and became Vice-Chancellor for Research and Development at the Bloomington campus. In spite of his heavy administrative responsibilities he continues to be active in computational theoretical chemistry.

V. Jack SHINER became the U. S. Project Officer for the U. S. Public Health sponsored project for a Foreign Currency Credit Award. The European director of the project is Dionis Sunko from the Institut Ruder Boskovic, Zagreb. Dr. Sunko is to spend the second semester as visiting professor in the Department.

Ernest WENKERT, the first Herman T. Briscoe Professor and the first faculty member in the Department to receive an award administered by the ACS, continues to be a recognized lecturer. In a series of three lectures on $^{13}$Carbon Nuclear Magnetic Resonance Spectroscopy at the University of Illinois in November he spoke on Recent Advances in $^{13}$C NMR Spectroscopy in Natural Products Chem-

received the Marlow Medal of the Faraday Society. In 1970 he was the first holder of the Frank C. Mathers Lecture-ship. His four lectures were on "The Transition Elements in Biochemistry."

James E. MAY, Professor Emeritus May died July 22, 1972 at LaGrange, Illinois where he had lived the past two years. He received his A.B. degree from I.U. in 1904 and his M.A. degree at I.U. one year later. In 1908 he received his Ph.D. degree at Columbia University. From that time until his retirement in 1954 he was a member of the chemistry faculty at I.U. Most of his teaching was in introductory organic chemistry. Physicians and dentists throughout Indiana and many chemistry majors for several decades remember him for his rigorous requirements and his extensive use of "road maps" in teaching classical organic synthesis. His principal research contributions were in sugars, dyes, terpenes, and analytical biochemistry. He is survived by his son, Charles, two daughters Elizabeth Boardman and Margaret Forster, and one brother Wyatt E. May. His wife Frederica Kirby May died in 1971. A memorial service was held in Bloomington on July 25.

Kenneth H. SHULL, AB'50; PhD'55 Harvard U., died July 31, 1972 while vacationing in Athens, Greece. He was associate research professor of pathology and of biochemistry in the School of Medicine at the University of Pittsburgh. The survivors include the widow, Natalie; a son, George, and a daughter, Lisa, both at home; and a stepson, Stephen, in California.

Leslie J. TODD, AB'24, Muskingum College, AM'28, PhD'31, Columbia U., died September 25, 1972. He was professor emeritus of chemistry at Kent State University. During 1946-49 he was associate professor of chemistry at I.U.

Wayne E. THOMPSON, AB'50, IU, died November 6, 1972 while at work at Eli Lilly and Company, in Indianapolis. The survivors include the widow Marie, and five sons, William, Michael, Robert, James, and Joseph, all of Indianapolis. Wayne was responsible for the development of Darvon into a commercial product. He was much involved in community affairs during his years at Lilly.

Publications About the Department

The principal regular publications giving information
whose names have been added since the last Newsletter was prepared include: Dian WAKEFIELD (PhD'67) who is teaching at St. Olaf College, Northfield, Minnesota; Paul DORAIN (PhD'54) from Brandeis University; Nick TIMM (BS'71) who is now a second year medical student at IU; Mel SMITH (MD '72) from Elkhart, Indiana; Ram Dev BEDI (PhD'60) who brought his wife and twin sons back to see the old school from Southfield, Michigan. Also visiting us were William PHILLIPS (MA '46) from Commercial Solvents, Terre Haute; Charles O'BANNO (BS'47) from UGC Industries in Seabrook, Texas; Jeanne YOUNG (AB'47) from Marion, Indiana; Merton BROOKS (AM'49) from Royal Oak, Michigan; Herbert RELLER (PhD'52) from Procter and Gamble, Cincinnati; Richard MCCARTY (PhD'72) from Worthington, Ohio; Bliss PHILLIPS (AB'68) from the Northern Regional Laboratories in Peoria; James ROOLEY (PhD'51) now living in Hermitage, Tennessee; Merle KRIDER (AM'43) from Philadelphia, Robert MEEKS (BS '69) from Nashville, Tennessee; William FORGEY (AB '64) from Gary and Ludwik BASS who was a visiting professor here a few years ago and is now at Queensland University, Australia.

NECROLOGY

Each year marks the end of life for some who have meant much to the Department of Chemistry. During the past year six that we know about have died and thus their names become recorded in our Book of Memory. Each will be remembered with appreciation and admiration.

Mrs. Orah Cole BRISCOE, AB'29, AM'34, died on April 10, 1972 in her home in Sarasota, Florida. She was the widow of the late vice president and dean of faculties, Herman T. Briscoe. The surviving children are Mrs. Stephen G. Ayers (Catharine) of Omsted Falls, Ohio; Robert of Sudbury, Mass., and William of Annandale, Virginia.

John S. GRIFFITH, AM'53, Sc.D.'61, Cambridge U., died of cancer on April 23, 1972 in Cambridge, England. He held the rank of professor in this Department from 1968 to 1971. In January 1972 he joined the Institute of Immunology in Basel, but after only 10 days illness determined that he should return to his home in England. He was a distinguished theoretical chemist and biophysicist. Three definitive books and many journal articles attest to his productivity and the high quality of his work. In 1961 he

Sabbatical leaves

During the second semester of 1971-72 three faculty members had sabbatical leaves. C. S. PARMENTER was working in the Department of Theoretical Chemistry at Cambridge University and V. J. SHINER went to the University College (London) to use the mass spectrometry facilities of the laboratory of Professor Allan Macoll. His work involved measuring $^{13}$C deuterium and chlorine isotope effects in nucleophilic displacement reactions.

D.G. PETERS was in the Department of Mathematics at the University of Queensland in Brisbane. He lectured on his research at the Australian National University in Canberra and he visited the New England University at Armidale, Australia.

Throughout 1972-73 S. HAGSTROM will be in the laboratory of Professor Kimio Ohno in the Faculty of Sciences, Hokkaido University, Sapporo, Japan. R. SCHAFFER will spend the second semester with Professor Heinrich Noth at the University of Munich, Germany. Also, during the second semester R. WENTWORTH will work with Professor R. J. P. Williams at Oxford University, England.

Industrial Professorships

In 1968 the Department initiated a novel program designed to improve the interface between the academic and industrial worlds. This program consists of the appointment of industrial chemists to industrial professorships within the Department. The initial appointment was Dr. Harold ZEISS (B.S.IU.'38), of Monsanto Chemical Company in Zurich, Switzerland. Dr. Zeiss has visited the Department many times during his appointment and has contributed to it in a number of ways. Given the success of the initial venture the Department has elected to greatly expand the program. There are now four industrial professors. In addition to Dr. Zeiss they are: Mr. Jack Frazer, of Lawrence Livermore Laboratory, Mr. Max MARSH (BS'47), of Eli Lilly and Company, and Dr. Harmon Brown, of Varian
Inc. Mr. Marsh has already made several visits to the Department and is interacting fruitfully with a number of faculty and students. Mr. Frazer has made his initial visit to the Department and will develop a collaborative research effort with Professor HIEFTJE. We are anticipating the first visit of Dr. Brown in the near future.

The Department generally remains strongly committed to improving our relationships with industrial chemists as well as our understanding of industrial chemistry. In the fall of 1973 the Department will offer a course in industrial chemistry, organized by Professor Schaeffer with lectures to be given by a series of industrial chemists. We welcome any comments or suggestions concerning either the industrial professor program or the industrial chemistry course from alumni of the Department.

**Special Recognitions**

Probably the most notable recognition concerned with the Department in 1972 was the selection of Jack FRASER, one of our four part-time industrial professors, to receive the ACS Award in Chemical Instrumentation. He is leader of the general chemistry division at the Lawrence Livermore Laboratory of the University of California, Livermore.

The award will be made for Mr. Fraser's inventiveness in bridging the gap between computer and chemistry. He has provided leadership in the development of concepts, apparatus and systems in computer automation of laboratory experiments and programs.

AIUC members will remember that the Award in Chemistry Instrumentation was received in 1969 by the immediate past-president of AIUC, Dale J. FISHER (PhD'51). Also, in 1971, Ernest WENKERT, our Herman T. Briscoe Professor, received the Ernest Guenther Award in the Chemistry of Essential Oils and Related Products.

**STAFF NEWS**

Many of the older alumni would be astonished by the growth of the Department as shown in the number and character of supportive services, most of which are provided by non-academic staff members. At this time 75 persons

Robert ROWELL (PhD'60) was in charge of the very successful Colloid Symposium which was held at the University of Massachusetts June 19-21, 1972.

A letter last spring told us that Marit and Jens TRAETEBERG (Post-PhD'62-64) are still in Trondheim. Marit is now Associate Professor of Chemistry at the University of Trondheim and Jens is at Sintef, an industrial research organization associated with the Norwegian Institute of Technology.

Robert TREADWAY (PhD'36) was elected Vice President of the Potato Association of America last summer at their annual meeting. Before becoming an administrator at the Eastern Laboratory he was active in research on potato starch and the food science connected with potato processing. Dr. Treadway attended the class of 1932 reunion last spring (the year of his AB) and was well pleased to visit with many of his former classmates, including Luther ROEHM, now Senior Vice President of Merck and Company, George T. GIFFORD in Biochemistry at the IU Medical Center, Virgil H. HUNT, administrator at the Medical School. Dr. Treadway is Assistant Director, U.S. Department of Agriculture Research Service at Philadelphia.

Ted WARNER (PhD'63) has been granted a sabbatical year from the Naval Research Laboratory, Washington, D.C. He is now at the Scripps Institute of Oceanography, LaJolla, California, learning "something about what real oceanographers know" and "doing a little research in a different area". Oceanography seems to have its own type of fringe benefits. Ted and his family are living in "a house up on a bluff overlooking (almost) the ocean." At work, "when the surf is up they take lunch hour in the waves."

Bernard WOLNACK (PhD'43), president of Bernard Wolnak and Associates in Chicago, in a recent article in Food Product Development has lamented the rapid growth of the "health" food segment of the food market. He has proposed new approaches in food advertising and by federal agencies to promote more rational selection and uses of foods. His views have been favorably recognized in the Journal of Nutrition Education (Fall, 1972).

Alumni who come to the AIUC office in Bloomington (Day and Greene) are invited to sign the AIUC register. Those
versity of California (San Francisco) in pharmaceutical chemistry. He is enjoying his work and has already completed his preliminary examinations.

Chemistry alumni are making significant contributions to the ANNUAL REVIEW OF BIOCHEMISTRY. Jerard HURWITZ (AB '49) is a member of the editorial committee and Ludwig BRAND (PhD '60) is the senior author of a review on "Fluorescence Probes for Structure" in the 1972 issue.

A clipping sent to us last Spring reported on the fine job Gerald KIRKMAN (MA '61) is doing in teaching chemistry at North High School in Evansville.

Dr. Katherine L. KNIGHT (PhD '66) received a Career Development Award from the NIH and has been promoted to associate professor at the Department of Microbiology, U. of Illinois Medical College in Chicago.

In a special article on laboratory courses in C&EN (October 9, 1972) a striking picture of Brown L. MURR (PhD '61) is used to help illustrate innovations in teaching at Johns Hopkins where he is a member of the chemistry faculty.

Ed NEISS (PhD '61; MD '67 U. Penna.) is now head of clinical pharmacology at Merck, Sharp, and Dohme.

Elsa (Proehl) PAULSEN (AM '45; MD '54 U. Minn.) is the first lady in the School of Law at the University of Virginia since her husband is the dean. Besides looking after her family, she serves on the faculty in the School of Medicine. One of her special interests is the Holiday Trails Camp for the medically handicapped, at Charlottesville. She is vice-president of the Board.

Dr. Gucker tells us that Gus FULIDO (PhD '61) is now President of Central Philippine University. This University was founded in 1905 by Baptist missionaries and has grown to its present size - 6,300 students attending classes on the 50-acre campus in Iloilo City.

Maxwell RICHTER (Post-PhD '58-59) has moved from McGill University, Montreal to the Department of Pathology, University of Ottawa, Ontario.

David ROTHROCK, Jr. (AB '26), assistant to the Vice President for Corporate Ventures at Rohm and Haas chose early retirement this year.

are in this category. This does not include the many part-time student workers.

Names that will be familiar to many of the older alumni include: Sylvester BROWN (Chemical Scientific Stores), Arthur CLOUSE (Magnetic Resonance and Mass Spectrometry Laboratories), Lois CRUM (Chairman's office), Robert ENSMAN (Instrumentation Specialist), Fred HARDY (Assistant to Director of Laboratories), Shirley (ARNOLD) HUMPHREY (Business Office), Earl SEXTON (Glass Shop), William STREIB (Director of Laboratories), Maurice WILLIAMS (Machine Shop) and Elizabeth GREENE (Academic Counselor, Secretary, Placement Service, and Editor of the Newsletter).

And many of you will remember Harvey BECK who first came to the Department as custodian and then joined Glen Hepley in the Chemical Stores. In recent years he has been working through the Machine Shop on many of the repair jobs for the Department. In 1972 Harvey completed his twenty-fifth year with the University and joined Earl and Fred as one of the "old timers."

The comprehensive array of modern instruments in the Department's Research Services Facilities and instructional programs could not be used without the skill and dedication of the specialized staff. During the past year two staff members (Clouse and Williams) were coauthors of papers published in chemical journals.

Research Associates

At this time 37 postdoctoral workers are associated with 16 different members of the chemistry faculty in full time research. Such workers were co-authors of at least 30 scientific publications from the Department in 1971-72. A few are working while searching for suitable regular positions in chemistry, but after receiving their degrees elsewhere a large proportion came to the Department for opportunity to be associated in research with specific faculty members for limited periods of time.

Mathers Lectureship

The Frank C. Mathers Lectureship in Chemistry for 1972 was held from October 25-26. Professor William N. Lipscomb, the Abbot and James Lawrence Professor of Chemistry
at Harvard University, presented three lectures, "Orbitals in Polyatomic Molecules," "New Developments in Boranes and Carboranes," and "Why do Enzymes Work so Fast?"

The Lectureship was established in 1970 through an anonymous gift of money from a former student of Professor Emeritus Frank C. Mathers. Professor Mathers, at 95 years of age, still comes to his laboratory in the Chemistry Building and he attends many functions at the University. He appreciates hearing from the alumni.

Special Bequests for the Department

Many alumni and friends make gifts to the University for use in the Department. All are appreciated and, we believe, effectively used. Recently three major bequests have been received. They are $50,000 from the estate of the late Mrs. Marie M. Grim in memory of her husband Reuben J. Grim; $58,923.24 under the Ira E. Lee Residual Trust; and $100,000 from the estate of the late Earl Blough.

Also, there have been some special smaller, but especially valuable gifts by living alumni. Identification of the contributors will be made in due course, but not before specific authorizations are given.

The bequest provided by Mrs. Grim was designated to be used for scholarships in Chemistry, but it is being used for majors in Chemistry who have high academic records and substantial financial needs. Dr. Grim received his Ph.D. degree here in 1941. The awards will be known as the R. J. Grim Memorial Scholarships.

Mr. Ira E. Lee received his A.B. degree in 1911 and his A.M. in 1912. The bequest specified that the income derived from the distribution to Indiana University is "to be used for scholarships in chemistry." Within a short time the first awards will be made. All the awards will be designated the Ira E. Lee Memorial Scholarships.

Mr. Earl Blough received his A.B. degree in Chemistry in 1899. His lifetime of 95 years was marked by singular accomplishments in the aluminum industry and continuing interest in his alma mater. The income from the bequest will be used as a salary supplement or research assistance for a chemistry professorship to be known as the Earl Blough Professorship.

visiting with AL BORDERS (PhD '37), Richard WEN (PhD '62), Norman SWEENY (AM '51), and John PEAKE (AB '31 and a former member of our faculty) while he was in Minneapolis at 3M recently. They are all quite active and happy. John is now 3M Director of Educational Services.

Vice President Merritt saw S. K. DATTA (PhD '58) in Delhi this summer. He is looking for a job now in the USA, preferably an academic job but would also take an industrial job. He has been working on plastics, primarily vinyl chloride polymers and compounds and on the technical service and development end of the business. His latest address is c/o NOCIL T. S. Laboratory, Rajan House, Off Veer Sarankar Morg, Prabhadei, Bombay, India 400025.

Joseph DEC (AB '56) after many years in New Jersey with Johns-Manville has moved to their new Johns-Manville Research Center about twenty miles southwest of Denver. That must be a major change in climates for the Decs but I am sure it must be an interesting and challenging change.

Dr. Vincent FERNANDEZ (Post-PhD '60-62) is now at the National Chemical Laboratory at Poona in research and development. He is the proud father of two small children, a boy and a girl.

Charles FROHMANN (BS '48), biochemist at Lafayette Clinic in Detroit, was the key figure in a Chemical World column of C&EN for January 31, 1972. He and his co-workers have isolated and partially characterized an enzyme whose absence from the brain, they believe, may precipitate the onset of schizophrenia.

Minos GEORGADIS (PhD '64) has accepted a university appointment in Greece. He and his family plan to leave Montreal and return to their homeland early in 1973.

Amanda (McKee) GILLUM (BS '69) writes that husband Bill is out of the Navy. They are both continuing graduate work on fellowships at MIT.

James L. GROFF (PhD '63) moved from the Sterling Winthrop Research Institute to a teaching position in Doraville, Georgia.

Michael HASEMAN (MS '71) entered medical school at the University of Florida this fall.

Steven HURT (BS '71) visited Dr. Campagne's laboratory this summer after a year in graduate school at the Uni-
American Chemical Society this past year were Chester AMICK (Am'21), Cecil V. KING (Ab'19), and Frank GUCKER, former chairman of the Department and former Dean of the College of Arts and Sciences.

In our mail this past year, we received an advertising brochure from Bionomics Corporation of Waukesha, Wisconsin--Richard BAYER (PhD'59) is its president--offering a new professional service for fighting water pollution.

News has been received that Dr. Robert BOTTLE (Post-PhD '54-55) has moved to the University of Strathclyde (Glasgow) in the Department of Librarianship where he is continuing research into new approaches to uses of the library for the research chemist.

The Hexagon Magazine in a recent issue has a fine article on Michael BLEW (Ma'15) who is Colonel, Medical Service Corps (Retired). He retired in 1947 but has been almost as active and busy since as before his retirement. At the time of his retirement he was selected to head up the Chief of Engineer's Office Water Supply Section of the US Anti-Communist Congress and the US Radio Free Agency. He is Chief of Engineer's Office Water Supply Section of the Security Council Advisory Board. His major concern, however, is the promotion of the United States Conversion to the Metric System. He is Vice President, Publicity for the Metric Association, Inc.

It was noted in a summer issue of C&EN that two investigators at the University of California (Irvine), Caryl Lynch and Carl COTMAN (PhD'68) have produced a new theory on brain damage. They feel that damaged portions of the brain don't die; they become reorganized and "rewired." Their findings from experiments with rats may force a revision of current theories about the brain's capabilities.

Lawrence E. COX (PhD'70) and Margaret M. COX (PhD'70) are moving to Los Alamos, New Mexico, where LE has a job at Los Alamos Scientific Laboratory.

Dr. Campagne visited the State University of New York at Buffalo this fall and visited with Leo FEDOR (PhD'63) who is now an Associate Professor in the Department of Medicinal Chemistry there. Dr. Campagne also tells us of

Blough Professorship in Chemistry. This use of the bequest has been approved by Mr. Blough's daughter, Mrs. Curt Muser.

Chemistry Library

In an effort to keep pace with dwindling shelf space and increased chemical publications, the Chemistry Library has recently acquired staff and equipment for a complete microforming operation. Several pieces of hardware have been installed, including a 16 mm camera manufactured by the 3M Company. With three specialized machines for converting the microfilm to diazo microfiche, the unit is completely operational at this time. However, special darkroom equipment will soon be acquired to speed up the turn-around from exposure to delivery.

Five Bell and Howell lap readers have been received, and five more Kodak Ektolyte table top readers are on order.

Immediate applications of the microforming capability include microforming rarely used back issues of journals, and filming and duplicating output from the newly established Chemical Information Network.

In the library this will result in a totally new concept. Personal copies of microformed documents can now be obtained for the cost of reproduction, only pennies more than the Xerox cost for one page. This means loaning of microformed materials will probably never occur. And since the diazo reproducer and developer is located in the library, waiting time will not be an important factor. Library patrons can be assured that the microform they want is actually in the library when they want it.

The Chemistry Library now occupies almost 6,000 square feet. It is staffed by two professional science librarians and several part-time student assistants. The head librarian, John M. KNEGO, has become a major contributor in the development and use of the new microforming capabilities.

Undergraduate Education

The most recent development in the Department in the teaching of chemistry at the undergraduate level has been initiated by Professor E. J. BAILR. He has developed a
series of general chemistry laboratories which are innovative in terms of both content and structure. The entire project falls into the category of computer-assisted instruction and is designed to improve the student’s appreciation of the experimental process itself as well as his ability to make rational deductions from experimental observations. At the conclusion of the experimental exercise students will select and order several statements from a large number of possible statements about the results and their interpretation. These will then be submitted to a computer which is programmed to evaluate both the quality of the experimental result itself and the thought process of the student involved in arriving at conclusions from the data. Each student will get immediate feedback from the computer concerning his performance and will then have the opportunity to rethink the significance of his observations and to revise his conclusions. By giving immediate feedback, by providing an impetus for his personal reevaluation of the success of his experimental efforts and of his own conclusions drawn from them, we anticipate that the real benefits to be gained from a laboratory experiment will be realized.

This program will be initiated during the spring semester of 1973 in our Chemistry 105 course and will be expanded to other general chemistry courses as rapidly as possible. As the success of this program meets our anticipation it may well have a national impact on laboratory instruction in chemistry.

Honors Banquet

The long-established custom of recognizing the outstanding undergraduate and graduate students with a banquet in their honor was continued this year. The event occurred on April 24, 1972. Those attending were entertained by a vocal group organized and led by one of our chemistry undergraduates, William LUCHTMAN, who has considerable musical talent.

Three freshmen were honored as tops in the general chemistry courses for majors. They were: Mary Kaye EDWARDS from Evansville, Scott FAUTH from Park Ridge, Illinois, and Carol TREAT who’s family live in Cincinnati, Ohio.

Society Award in Chemical Instrumentation (as readers of the Newsletter will remember). He is a member of the Editorial Board of CHEMICAL INSTRUMENTATION and of the Advisory Board for the Chemical Analysis Series of Monographs or Wiley-Interscience.

His memberships give us a clue to at least one hobby—archaeology—he has participated in several site surveys. He has a wide and varied list of interests including photography, music (violin), art, swimming, canoeing, fishing, stamp collecting, and he is a ham radio operator (his station is W4TVK in case you also enjoy this hobby). However, I suspect his favorite pastime is the time he spends with his wife Ruth and their little daughter, Shelley Dale.

He has published extensively and has conceived and directed many research projects in the design, development, and application of new or improved instrumentation and methods. This has included instruments for emission and atomic absorption flame spectrophotometry, polarography, remotely-controlled chemical and physical analysis of radioactive materials, conductometric measurements, chronopotentiometry, noltometry, polentrometric titration, and coulometry.

He has been involved in planning several symposia for the American Chemical Society and is now working on a new book to present and develop his ideas concerning the appropriate design and use of instrument systems for measurements for research and analysis.

Dale and Ruth have collaborated in designing a summer house on a peninsula on Watts Bar Lake. It is built with much glass and heavy beams and rough-sawn cedar-post and beam structure—easy maintenance—no paint allowed.

Ruth is a piano graduate of Peabody Conservatory, Baltimore. She teaches piano, is the accompanist for the Oak Ridge Chorus and musical director of the Oak Ridge Playhouse. She has served as a member of the Tennessee Arts Commission and is now a member of its Music Advisory Panel.

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Andzej ZAWISZA completed his work with Dr. GUCKER in March and has returned to the Institute of Physical Chemistry at the Polish Academy of Science in Warsaw.

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His list of Society memberships is very impressive, including Sigma Xi, Phi Lambda Upsilon, Cagut Acoustical Society, Tennessee Archeological Society, the British Polarographic Society, and the American Chemical Society. He was selected to receive the 1969 American Chemical

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1972 GRADUATES
Bachelor Degree Candidates

During the past year 59 students were certified for bachelors degrees in chemistry. In spite of considerable effort, several of these have not given us any information about their present activities. Among those who did, the following are enrolled at the I.U. School of Medicine: William AESCHLIMAN, Steven AKEN, George ARONOFF, Steven BEAVER, Howard BRUMBAUGH, Athanasios FOSTER, Thomas GELLERSON, Gerhard LOHAUS, Tony LAUGHLIN, Frederic MILHORST, ( ) Ann PATTON, Janet RIPPY, Edward RUTLEDGE, and Alan SMELL. Others who are attending out of state medical schools include: Robert ALBERHASKY, at the University of Louisville; Kaye R. FICHMAN, at John Hopkins University; Paul LIVA, to the University of Guadalajara (Mexico); while David LOSHN is enrolled in the Washington (St. Louis) University Medical School, and Michael YONK is at the University of Chicago Medical School.

Dental schools are included in the plans of Clark BARCO, Richard JONES, and Cheryl MILLER at Indianapolis in the Indiana University School of Dentistry; while Paul ABRAMOWITZ is enrolled at the Ohio State School of Dentistry.

Law schools continue to draw a few of our graduates. Robert HUNTINGTON was admitted to the George Washington
University Law School while Mark NEFF and Neil WEIKART stayed in Bloomington to attend the I.U. School of Law.

Students who have gone on to graduate schools include: Robert SPILLMAN to the University of Illinois, Thomas EICKBUSH to John Hopkins (Biology), Steven GUST to the University of Minnesota (Psychology), Randall JORDAN staying on in chemistry at IU, Nancy KRIEGER to Stanford University (Pharmacology), Carl LAGENAUR to the University of Washington (Biochemistry), Steven R. MILLER to the Purdue School of Engineering, Douglas SPAULDING staying in Bloomington to do work in mathematics, Hazel STETTO to Cornell, and Marvin WINSTON to Rutgers University (Food Technology).

Linda BOBO, Carol Van ERMAN, Glenda DEARDORF, and Maria ONG are working as technicians in the research labs at the IU Medical Center. Janet DEICH is in the medical technologist program. Lawrence KROCK is working on a special research project with a Bloomington M.D., and Daniel RUSHING is presently working in the St. Joseph's Hospital as an orderly.

Thomas BRITTON went to work for Dow Chemical Co. this summer after holding a Dow Scholarship for the past three years.

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Among those who have completed work for graduate degree since our last Newsletter are the following:

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Don Charles BEER, completing work for the PhD under the direction of Dr. Lee TODD is now serving as postdoctoral at the University of Virginia.

George BODNER (PhD'72) accepted appointment as Visiting Assistant Professor at the University of Illinois.

Stephen L. BRENNER (PhD'72) is now Assistant Professor at the University of Kentucky.

Inc., at Harrisburg, Pennsylvania.

Henry WEBSTER who had worked under Dr. BAIR for his PhD research, became a Research Chemist at NAD, Crane this fall.

James W. MAIR, Jr., after completing his MS work under Dr. DAY in the analytical biochemistry of boron, has joined the Rohm and Haas Company in Philadelphia. His work is in methods development.

Postdoctoral Research Associates

The recent postdoctoral research associates leaving the Department have included Alfred ANDERSON who worked with Dr. SHULL. He has gone on to the Cornell University Department of Chemistry.

J. S. BINDRA, after working with Dr. WENKERT, has moved on to the Medical Research Laboratories of Pfizer Pharmaceutical in Groton, Connecticut.

Brian CHAUNCEY, who spent some time in Dr. WENKERT's laboratory, now has a postdoctorate at Australian National University.

Nye CLINTON, who spent a year working with Dr. KOCHI, has taken a position with Union Carbide in Watertown, New York.

Walter EBERHARD, who worked in Dr. SCHAEFFER'S laboratory last year, has returned to Stuttgart, Germany to continue his research.

David EDGE, who spent last year working with Dr. KOCHI, has returned to England where he is Senior Demonstrator, UMIST, in Manchester.

After Dr. Takashi KAWAMURA completed his project with Dr. KOCHI here he returned to Kyoto University, Kyoto, Japan.

After completion of a research project in Dr. WENKERT'S lab, Takanobu KUMAMOTO returned to Tokyo Institute of Technology as research associate.

Charles McPHERSON went from Ernest WENKERT'S lab to Western Electric Research Center (Princeton) as a research chemist.
Leo T. BURKA (PhD '72) who worked with J. J. GAJEWSKI now holds a research associateship at Vanderbilt University.

After Ray CHILDERS completed his doctoral work with Dr. WENTWORTH he moved down the hall to work with Dr. ALLERHAND on a postdoctoral appointment.

David COCHRAN, after completing his work for a PhD with Dr. WENKERT accepted a postdoctoral appointment at Johns Hopkins University.

Karl DAWIDOWICZ returned to Caracas, Venezuela after completing his work with Dr. MAHLER.

Quay DORTCH who had completed MS work under Dr. John HAYES, is continuing his graduate work in the Department of Oceanography at the University of Washington.

James ELY who received his PhD last year is employed in the Cryogenics Division, National Bureau of Standards, in Boulder, Colorado.

Victor GLUSHKO who has spent the last few years working on a PhD degree in Biochemistry completed his work this fall and became a Research Fellow at the Sloan-Kettering Institute.

Stephen KAHL accepted a postdoctoral appointment at the University of California, Berkeley, at the conclusion of his doctoral work with Dr. Lee TODD.

John H. KINDSVATER whose PhD work was under the direction of Dr. R. SCHAEFFER, has accepted a postdoctoral appointment at the University of Mississippi.

Elaine KIRSCHENSTEINER (MS '72) is teaching chemistry at Greenwich High School in Connecticut.

Mel LEVY, who completed his research for the PhD in Dr. SHULL'S group, has spent the last year as a postdoctoral at Johns Hopkins University; while Burton LEWIS who completed his work with Dr. WENKERT in 1971 has been working as a postdoctoral at the University of Arkansas.

Jang-Wang LIU, who completed his doctoral work with Dr. BONHAM last summer, has gone to Queens University, Kingston, Ontario.

Charles LONG left last winter to accept a postdoctoral appointment at the University of California, Riverside, after finishing his degree work with Dr. EWING.
Mike MAGUIRE, who spent the past three years in Dr. MAHLER'S laboratory, after completing work for the PhD, went on to a postdoctoral at the University of Virginia School of Medicine, Charlottesville.

Leonard MARABELLA accepted a postdoctoral at MIT at the conclusion of his degree work under Dr. EWING.

Bill MICHAELY who had completed his thesis work with Dr. CRANDALL went on to the University of California at La Jolla for a postdoctoral appointment.

Herbert PINNICK, who completed his PhD research in Dr. SHINER'S laboratory, is now serving as Assistant Professor at Southeast Missouri State University at Cape Girardeau.

Richard RIETZ who had worked in Dr. SCHAFFER'S laboratory went on to a postdoctoral appointment at UCLA last winter.

Fred M. SCHELL, Assistant Professor of Chemistry at the University of Tennessee (Knoxville), completed his doctoral work with Professor WENKERT last summer.

Barry SEARS, who finished his doctoral work with Dr. CORDES last winter, went on to a postdoctoral position in the University of Virginia Medical School and Larry SNEDDON who did his doctoral work with Dr. SCHAFFER went to the University of Virginia Chemistry Department for postdoctoral work.

Stanley SOUKA completed his work for the degree with Dr. CRANDALL and became a Research Associate in the Naval Research Laboratories in Washington.

After completing his PhD work with Dr. PARMENTER, Frederick STEIN moved on to the Division of Natural Sciences at Western State College in Gunnison, Colorado as an Assistant Professor.

Lenore SPENCER after completing an MS moved to Nashville, Tennessee where she is working in the Microbiology Department of Vanderbilt University.

Glenn TINDALL, who had done his PhD research under the guidance of Dr. CRANDALL, went to the University of Cincinnati College of Medicine as a postdoctoral assistant under Dr. Gaffney last winter.

When Richard ULSH completed his doctoral work with Dr. BONHAM he became Associate Engineering Scientist for AMP,
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Law schools continue to draw a few of our graduates. Robert HUNTINGTON was admitted to the George Washington
series of general chemistry laboratories which are innova-
tive in terms of both content and structure. The entire
project falls into the category of computer assisted in-
struction and is designed to improve the student's appreci-
ation of the experimental process itself as well as his
ability to make rational deductions from experimental ob-
servations. At the conclusion of the experimental exer-
cise students will select and order several statements
from a large number of possible statements about the re-
results and their interpretation. These will then be sub-
mited to a computer which is programmed to evaluate both
the quality of the experimental result itself and the
thought process of the student involved in arriving at
conclusions from the data. Each student will get imme-
diate feedback from the computer concerning his performance
and will then have the opportunity to rethink the signif-
icance of his observations and to revise his conclusions.
By giving immediate feedback, by providing an impetus for
his personal reevaluation of the success of his experimen-
tal efforts and of his own conclusions drawn from them,
we anticipate that the real benefits to be gained from a
laboratory experiment will be realized.

This program will be initiated during the spring semester
of 1973 in our Chemistry C105 course and will be expanded to
other general chemistry courses as rapidly as possible.
As the success of this program meets our anticipation it
may well have a national impact on laboratory instruction
in chemistry.

Honors Banquet

The long-established custom of recognizing the outstand-
ing undergraduate and graduate students with a banquet in
their honor was continued this year. The event occurred
on April 24, 1972. Those attending were entertained by a
vocal group organized and led by one of our chemistry
undergraduates, William LUCHTMAN, who has considerable
musical talent.

Three freshmen were honored as tops in the general
chemistry courses for majors. They were: Mary Kaye ED-
WARDS from Evansville, Scott FAUTH from Park Ridge, Ill-
inois, and Carol TREAT who's family live in Cincinnati,
Ohio.

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Alumni News

Among those celebrating fifty years membership in the
American Chemical Society this past year were Chester AMICK (AM‘21), Cecil V. KING (AB‘19), and Frank GUCKER, former chairman of the Department and former Dean of the College of Arts and Sciences.

In our mail this past year, we received an advertising brochure from Bionomics Corporation of Waukesha, Wisconsin—Richard BAYER (PhD‘59) is its president—offering a new professional service for fighting water pollution.

News has been received that Dr. Robert BOTTLE (Post-PhD ’54–55) has moved to the University of Strathclyde (Glasgow) in the Department of Librarianship where he is continuing research into new approaches to uses of the library for the research chemist.

The Hexagon Magazine in a recent issue has a fine article on Michael BLEW (MA‘15) who is Colonel, Medical Service Corps (Retired). He retired in 1947 but has been almost as active and busy since as before his retirement. At the time of his retirement he was selected to head up the Chief of Engineer’s Office Water Supply Section of Military Construction. He is very active now as a member of the US Anti-Communist Congress and the US Radio Free Agency, the American Economic Foundation and the Security Council Advisory Board. His major concern, however, is the promotion of the United States Conversion to the Metric System. He is Vice President, Publicity for the Metric Association, Inc.

It was noted in a summer issue of C&EN that two investigators at the University of California (Irvine), Garry Lynch and Carl COTMAN (PhD‘68) have produced a new theory on brain damage. They feel that damaged portions of the brain don’t die; they become reorganized and "rewired." Their findings from experiments with rats may force a revision of current theories about the brain’s capabilities.

Lawrence E. COX (PhD‘70) and Margaret M. COX (PhD‘70) are moving to Los Alamos, New Mexico, where LE has a job at Los Alamos Scientific Laboratory.

Dr. Campagne visited the State University of New York at Buffalo this fall and visited with Leo FEDOR (PhD‘63) who is now an Associate Professor in the Department of Medicinal Chemistry there. Dr. Campagne also tells us of

Blough Professorship in Chemistry. This use of the bequest has been approved by Mr. Blough’s daughter, Mrs. Curt Muser.

Chemistry Library

In an effort to keep pace with dwindling shelf space and increased chemical publications, the Chemistry Library has recently acquired staff and equipment for a complete microforming operation. Several pieces of hardware have been installed, including a 16 mm camera manufactured by the 3M Company. With three specialized machines for converting the microfilm to diazo microfiche, the unit is completely operational at this time. However, special darkroom equipment will soon be required to speed up the turn-around from exposure to delivery.

Five Bell and Howell lap readers have been received, and five more Kodak Ektoeye table top readers are on order.

Immediate applications of the microforming capability include microforming rarely used back issues of journals, and filming and duplicating output from the newly established Chemical Information Network.

In the library this will result in a totally new concept. Personal copies of microformed documents can now be obtained for the cost of reproduction, only pennies more than the Xerox cost for one page. This means loaning of microformed materials will probably never occur. And since the diazo reproducer and developer is located in the library, waiting time will not be an important factor. Library patrons can be assured that the microform they want is actually in the library when they want it.

The Chemistry Library now occupies almost 6,000 square feet. It is staffed by two professional science librarians and several part-time student assistants. The head librarian, John M. KNEGO, has become a major contributor in the development and use of the new microforming capabilities.

Undergraduate Education

The most recent development in the Department in the teaching of chemistry at the undergraduate level has been initiated by Professor E. J. BAIR. He has developed a
at Harvard University, presented three lectures, "Orbitals in Polyatomic Molecules," "New Developments in Boranes and Carboranes," and "Why do Enzymes Work so Fast?"

The Lectureship was established in 1970 through an anonymous gift of money from a former student of Professor Emeritus Frank C. Mathers. Professor Mathers, at 93 years of age, still comes to his laboratory in the Chemistry Building and he attends many functions at the University. He appreciates hearing from the alumni.

Special Bequests for the Department

Many alumni and friends make gifts to the University for use in the Department. All are appreciated and, we believe, effectively used. Recently three major bequests have been received. They are $50,000 from the estate of the late Mrs. Marie M. Grim in memory of her husband Reuben J. Grim; $58,923.24 under the Ira E. Lee Residual Trust; and $100,000 from the estate of the late Earl Blough.

Also, there have been some special smaller, but especially valuable gifts by living alumni. Identification of the contributors will be made in due course, but not before specific authorizations are given.

The bequest provided by Mrs. Grim was designated to be used for scholarships in Chemistry, but it is being used for majors in Chemistry who have high academic records and substantial financial needs. Dr. Grim received his Ph.D. degree here in 1941. The awards will be known as the R. J. Grim Memorial Scholarships.

Mr. Ira E. Lee received his A.B. degree in 1911 and his A.M. in 1912. The bequest specified that the income derived from the distribution to Indiana University is "to be used for scholarships in chemistry." Within a short time the first awards will be made. All the awards will be designated the Ira E. Lee Memorial Scholarships.

Mr. Earl Blough received his A.B. degree in Chemistry in 1899. His lifetime of 95 years was marked by singular accomplishments in the aluminum industry and continuing interest in his alma mater. The income from the bequest will be used as a salary supplement or research assistance for a chemistry professorship to be known as the Earl Blough Professorship.

visiting with AL BORDERS (PhD'37), Richard WEN (PhD'62), Norman SWEENEY (AM'51), and John PEAKE (AB'31 and a former member of our faculty) while he was in Minneapolis at 3M recently. They are all quite active and happy. John is now 3M Director of Educational Services.

Vice President Merritt saw S. K. DATTA (PhD'58) in Delhi this summer. He is looking for a job now in the USA, preferably an academic job but would also take an industrial job. He has been working on plastics, primarily vinyl chloride polymers and compounds and on the technical service and development end of the business. His latest address is c/o NOCIL T. S. Laboratory, Rajan House, Off Veer Sarankar Morg, Prabhadei, Bombay, India 400025.

Joseph DEC (AB'56) after many years in New Jersey with Johns-Manville has moved to their new Johns-Manville Research Center about twenty miles southwest of Denver. That must be a major change in climates for the Dees but I am sure it must be an interesting and challenging change.

Dr. Vincent FERNANDEZ (Post-PhD'60-62) is now at the National Chemical Laboratory at Poona in research and development. He is the proud father of two small children, a boy and a girl.

Charles FROHMAN (BS'48), biochemist at Lafayette Clinic in Detroit, was the key figure in a Chemical World this week column of C&EN for January 31, 1972. He and his coworkers have isolated and partially characterized an enzyme whose absence from the brain, they believe, may precipitate the onset of schizophrenia.

Minos GEORGADIS (PhD'64) has accepted a university appointment in Greece. He and his family plan to leave Montreal and return to their homeland early in 1973.

Amanda (McKee) GILLUM (BS'69) writes that husband Bill is out of the Navy. They are both continuing graduate work on fellowships at MIT.

James L. GROFF (PhD'63) moved from the Sterling Winthrop Research Institute to a teaching position in Doraville, Georgia.

Michael HASEMAN (MS'71) entered medical school at the University of Florida this fall.

Steven HURT (BS'71) visited Dr. Campagne's laboratory this summer after a year in graduate school at the Uni-
versity of California (San Francisco) in pharmaceutical chemistry. He is enjoying his work and has already completed his preliminary examinations.

Chemistry alumni are making significant contributions to the ANNUAL REVIEW OF BIOCHEMISTRY. Jerard HURWITZ (AB '49) is a member of the editorial committee and Ludwig BRAND (PhD '60) is the senior author of a review on "Fluorescence Probes for Structure" in the 1972 issue.

A clipping sent to us last Spring reported on the fine job Gerald KIRKMAN (MA '61) is doing in teaching chemistry at North High School in Evansville.

Dr. Katherine L. KNIGHT (PhD '66) received a Career Development Award from the NIH and has been promoted to associate professor at the Department of Microbiology, U. of Illinois Medical College in Chicago.

In a special article on laboratory courses in C&EN (October 9, 1972) a striking picture of Brown L. MURR (PhD '61) is used to help illustrate innovations in teaching at Johns Hopkins where he is a member of the chemistry faculty.

Ed NEISS (PhD '61; MD '67 U. Penna.) is now head of clinical pharmacology at Merck, Sharp, and Dohme.

Elsa (Proehl) PAULSEN (AM '45; MD '54 U. Minn.) is the first lady in the School of Law at the University of Virginia since her husband is the dean. Besides looking after her family, she serves on the faculty in the School of Medicine. One of her special interests is the Holiday Trails Camp for the medically handicapped, at Charlottesville. She is vice-president of the Board.

Dr. Gucker tells us that Gus PULIDO (PhD '61) is now President of Central Philippine University. This University was founded in 1905 by Baptist missionaries and has grown to its present size - 6,300 students attending classes on the 50-acre campus in Iloilo City.

Maxwell RICHTER (Post-PhD '58-59) has moved from McGill University, Montreal to the Department of Pathology, University of Ottawa, Ontario.

David ROTHROCK, Jr. (AB '26), assistant to the Vice President for Corporate Ventures at Rohm and Haas chose early retirement this year.

are in this category. This does not include the many part-time student workers.

Names that will be familiar to many of the older alumni include: Sylvester BROWN (Chemical Scientific Stores), Arthur CLOUSE (Magnetic Resonance and Mass Spectrometry Laboratories), Lois CRUM (Chairman's office), Robert ENSMAN (Instrumentation Specialist), Fred HARDY (Assistant to Director of Laboratories), Shirley (ARNOLD) HUMPHREY (Business Office), Earl SEXTON (Glass Shop), William STREIB (Director of Laboratories), Maurice WILLIAMS (Machine Shop) and Elizabeth GREENE (Academic Counselor, Secretary, Placement Service, and Editor of the Newsletter).

And many of you will remember Harvey BECK who first came to the Department as custodian and then joined Glen Hepley in the Chemical Stores. In recent years he has been working through the Machine Shop on many of the repair jobs for the Department. In 1972 Harvey completed his twenty-fifth year with the University and joined Earl and Fred as one of the "old timers."

The comprehensive array of modern instruments in the Department's Research Services Facilities and instructional programs could not be used without the skill and dedication of the specialized staff. During the past year two staff members (Clouse and Williams) were coauthors of papers published in chemical journals.

Research Associates

At this time 37 postdoctoral workers are associated with 16 different members of the chemistry faculty in full time research. Such workers were co-authors of at least 30 scientific publications from the Department in 1971-72. A few are working while searching for suitable regular positions in chemistry, but after receiving their degrees elsewhere a large proportion came to the Department for opportunity to be associated in research with specific faculty members for limited periods of time.

Mathers Lectureship

The Frank C. Mathers Lectureship in Chemistry for 1972 was held from October 23-26. Professor William N. Lipscomb, the Abbot and James Lawrence Professor of Chemistry
Robert ROWELL (PhD'60) was in charge of the very successful Colloid Symposium which was held at the University of Massachusetts June 19-21, 1972.

A letter last spring told us that Marit and Jens TRAETEBERG (Post-PhD'62-64) are still in Trondheim. Marit is now Associate Professor of Chemistry at the University of Trondheim and Jens is at Sintef, an industrial research organization associated with the Norwegian Institute of Technology.

Robert TREADWAY (PhD'36) was elected Vice President of the Potato Association of America last summer at their annual meeting. Before becoming an administrator at the Eastern Laboratory he was active in research on potato starch and the food science connected with potato processing. Dr. Treadway attended the class of 1932 reunion last spring (the year of his AB) and was well pleased to visit with many of his former classmates, including Luther ROEHM, now Senior Vice President of Merck and Company, George T. GIFFORD in Biochemistry at the IU Medical Center, Virgil H. HUNT, administrator at the Medical School. Dr. Treadway is Assistant Director, U.S. Department of Agriculture Research Service at Philadelphia.

Ted WARNER (PhD'63) has been granted a sabbatical year from the Naval Research Laboratory, Washington, D.C. He is now at the Scripps Institute of Oceanography, LaJolla, California, learning "something about what real oceanographers know" and "doing a little research in a different area". Oceanography seems to have its own type of jive benefits. Ted and his family are living in "a house up on a bluff overlooking (almost) the ocean." At work, "when the surf is up they take lunch hour in the waves."

Bernard WOLNAT (PhD'43), president of Bernard Wolnak and Associates in Chicago, in a recent article in Food Product Development has lamented the rapid growth of the "health" food segment of the food market. He has proposed new approaches in food advertising and by federal agencies to promote more rational selection and uses of foods. His views have been favorably recognized in the Journal of Nutrition Education (Fall, 1972).

Alumni who come to the AIUC office in Bloomington (Day and Greene) are invited to sign the AIUC register. Those
whose names have been added since the last Newsletter was prepared include: Dian WAKEFIELD (PhD'67) who is teaching at St. Olaf College, Northfield, Minnesota; Paul DORAIN (PhD'54) from Brandeis University; Nick TIMM (BS'71) who is now a second year medical student at IU; Mel SMITH (MS'72) from Elkhart, Indiana; Ram Dev BEDI (PhD'60) who brought his wife and twin sons back to see the old school from Southfield, Michigan. Also visiting us were William PHILLIPS (MA'46) from Commercial Solvents, Terre Haute; Charles O'BANNON (BS'47) from UCG Industries in Seabrook, Texas; Jeanne YOUNG (AB'67) from Marion, Indiana; Merton BROOKS (AM'49) from Royal Oak, Michigan; Herbert RELLER (PhD'52) from Procter and Gamble, Cincinnati; Richard McCARTY (PhD'72) from Worthington, Ohio; Bliss PHILLIPS (AB'68) from the Northern Regional Laboratories in Peoria; James ROOLEY (PhD'51) now living in Hermitage, Tennessee; Merle KRIDER (AM'43) from Philadelphia, Robert MEEKS (BS '69) from Nashville, Tennessee; William FORGEY (AB'64) from Gary and Ludwik BASS who was a visiting professor here a few years ago and is now at Queensland University, Australia.

NECROLOGY

Each year marks the end of life for some who have meant much to the Department of Chemistry. During the past year six that we know about have died and thus their names become recorded in our Book of Memory. Each will be remembered with appreciation and admiration.

Mrs. Orah Cole BRISCOE, AB'29, AM'34, died on April 10, 1972 at her home in Sarasota, Florida. She was the widow of the late vice president and dean of faculties, Herman T. Briscoe. The surviving children are Mrs. Stephen G. Ayers (Catharine) of Omsted Falls, Ohio; Robert of Sudbury, Mass., and William of Annandale, Virginia.

John S. GRIFFITH, AM'53, Sc.D.'61, Cambridge U., died of cancer on April 23, 1972 in Cambridge, England. He held the rank of professor in this Department from 1968 to 1971. In January 1972 he joined the Institute of Immunology in Basel, but after only 10 days illness determined that he should return to his home in England. He was a distinguished theoretical chemist and biophysicist. Three definitive books and many journal articles attest to his productivity and the high quality of his work. In 1961 he

Sabbatical leaves

During the second semester of 1971-72 three faculty members had sabbatical leaves. C. S. PARMENTER was working in the Department of Theoretical Chemistry at Cambridge University and V. J. SHINER went to the University College (London) to use the mass spectrometry facilities of the laboratory of Professor Allan Macoll. His work involved measuring $^{13}$C deuterium and chlorine isotope effects in nucleophilic displacement reactions.

D.G. PETERS was in the Department of Mathematics at the University of Queensland in Brisbane. He lectured on his research at the Australian National University in Canberra and he visited the New England University at Armidale, Australia.

Throughout 1972-73 S. HAGSTROM will be in the laboratory of Professor Kimio Ohno in the Faculty of Sciences, Hokkaido University, Sapporo, Japan. R. SCHAFFER will spend the second semester with Professor Heinrich Noth at the University of Munich, Germany. Also, during the second semester R. WENTWORTH will work with Professor R. J. P. Williams at Oxford University, England.

Industrial Professorships

In 1968 the Department initiated a novel program designed to improve the interface between the academic and industrial worlds. This program consists of the appointment of industrial chemists to industrial professorships within the Department. The initial appointment was Dr. Harold ZEISS (B.S.IU,'38), of Monsanto Chemical Company in Zurich, Switzerland. Dr. Zeiss has visited the Department many times during his appointment and has contributed to it in a number of ways. Given the success of the initial venture the Department has elected to greatly expand the program. There are now four industrial professors. In addition to Dr. Zeiss they are: Mr. Jack Frazer, of Lawrence Livermore Laboratory, Mr. Max MARSH (BS'47), of Eli Lilly and Company, and Dr. Harmon Brown, of Varian

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change of Persons Committee. This fall the IUPAC responsibilities took him to Europe for three weeks. The trip included the presentation of a paper at the Third European Medicinal Chemistry Symposium in Milan.

Harry G. Day ended his year as President of the American Institute of Nutrition. This included active participation in the Western Hemisphere Nutrition Congress at Miami in September, 1971, and the International Nutrition Congress in Mexico City in September, 1972. Also, his activities included an appearance before the House Appropriations Subcommittee on Labor, Education, and Welfare in May to testify on the appropriations bill for the National Institutes of Health. Because he reached the age of 65 he retired from his associate deanship in the Office for Research and Advanced Studies.

Henry R. Mahler has continued to be a mainspring of thought and action in mitochondrial biochemistry. Looking forward, in January, 1973, he will be a speaker in the Distinguished Scientists Series of the Virginia Commonwealth University at Richmond. His topic will be Biogenetic Autonomy of Yeast Mitochondria.

Harrison Shull gave up his deanship of the Graduate School and became Vice-Chancellor for Research and Development at the Bloomington campus. In spite of his heavy administrative responsibilities he continues to be active in computational theoretical chemistry.

V. Jack Shiner became the U. S. Project Officer for the U. S. Public Health sponsored project for a Foreign Currency Credit Award. The European director of the project is Dionis Sunko from the Institut Ruder Boskovic, Zagreb. Dr. Sunko is to spend the second semester as visiting professor in the Department.

Ernest Wenkert, the first Herman T. Briscoe Professor and the first faculty member in the Department to receive an award administered by the ACS, continues to be a recognized lecturer. In a series of three lectures on Carbon Nuclear Magnetic Resonance Spectroscopy at the University of Illinois in November he spoke on Recent Advances in $^{13}$C NMR Spectroscopy in Natural Products Chem-

received the Marlow Medal of the Faraday Society. In 1970 he was the first holder of the Frank C. Mathers Lecture-ship. His four lectures were on "The Transition Elements in Biochemistry."

Clarence E. May, Professor Emeritus May died July 22, 1972 at LaGrange, Illinois where he had lived the past two years. He received his A.B. degree from I.U. in 1904 and his M.A. degree at I.U. one year later. In 1908 he received his Ph.D. degree at Columbia University. From that time until his retirement in 1954 he was a member of the chemistry faculty at I.U. Most of his teaching was in introductory organic chemistry. Physicians and dentists throughout Indiana and many chemistry majors for several decades remember him for his rigorous requirements and his extensive use of "road maps" in teaching classical organic synthesis. His principal research contributions were in sugars, dyes, terpenes, and analytical biochemistry. He is survived by his son, Charles, two daughters Elizabeth Boardman and Margaret Forster, and one brother Wyatt E. May. His wife Frederica Kirby May died in 1971. A memorial service was held in Bloomington on July 25.

Kenneth H. Shull, AB'50; PhD'55 Harvard U., died July 31, 1972 while vacationing in Athens, Greece. He was associate research professor of pathology and of biochemistry in the School of Medicine at the University of Pittsburgh. The survivors include the widow, Natalie; a son, George, and a daughter, Lisa, both at home; and a stepson, Stephen, in California.

Leslie J. Todd, AB'24, Muskingum College, AM'28, PhD'31, Columbia U., died September 25, 1972. He was professor emeritus of chemistry at Kent State University. During 1946-49 he was associate professor of chemistry at I.U.

Wayne E. Thompson, AB'50, IU, died November 6, 1972 while at work at Eli Lilly and Company, in Indianapolis. The survivors include the widow Marie, and five sons, William, Michael, Robert, James, and Joseph, all of Indianapolis. Wayne was responsible for the development of Darvon into a commercial product. He was much involved in community affairs during his years at Lilly.

Publications About the Department

The principal regular publications giving information
about the Department are the annual listing of Scientific Publications of the Department of Chemistry and the brochure Chemistry which is issued at approximately two year intervals.

The former is particularly useful as a convenient and comprehensive record of virtually all the scientific journal articles and books and book chapters produced by the faculty, students, and others associated with the Department. The first issue was in 1952. The latter gives general information concerning the faculty, opportunities for study and research, and resources both in the Department and in the total academic community.

Interested AUC members and others are invited to request copies.

AUC Newsletter Staff

Several persons contributed to the preparation of this Newsletter. Those who are most responsible for omissions, errors, and some delay in getting it finished before the end of 1972 are Elizabeth Greene, Editor, and Harry G. Day, Consultant and Contributor.

Treasurer's Report

The Treasurer's report continues to be not very encouraging concerning the receipt of contributions to cover the costs of producing the newsletter. It is only through the help of an anonymous donor and the Department reproducing it that we can send you this issue of the Newsletter.

Balance, 30 September 1971  
$225.35
Deposits (contributions from alumni)  
43.00
Charges (postage, social hour, etc.)  
278.35
35.45
Balance, 30 September 1972  
$232.90

Election of Officers for 1972-73

At the New York meeting Ted Largman (PhD '52) became the President, Richard wells (PhD '62) was made President-Elect, and Dale Fisher became the immediate Past-President. H. G. Day was continued as Secretary-Treasurer and Elizabeth Greene was continued as Editor of the AUC Newsletter.

FACULTY NEWS

In 1971-72 there were 45 members of the faculty. Four (Day, Merritt, Schapp, Shull) also served in administrative positions in the University. Two (Anderson, Tubb) were visiting professors. No new faculty were appointed and none retired.

After serving five years in the chairmanship, Dr. Riley Schaeffer was granted relief and Dr. Eugene Cordes became the chairman in July. Dr. Cordes came to the Department as Instructor in 1962. This was within a few months after receiving his Ph.D. degree at Brandeis. Within six years he became full professor and he has distinguished himself in various ways. He was soon given a USPHS Career Development Award and in due course the University gave him special recognition for outstanding teaching. Surely he is one of the most dynamic, resourceful, and productive chairmen in the University today, and he is only 37.

Nearly all the faculty members have been uniquely productive and active in teaching, research, or in some other way this year. But only a few instances will be reported at this time:

Adam Allerhand has been having outstanding success in the application of nuclear magnetic resonance and relaxation to chemical and biological systems. Among his various contributions in this area was his lecture in October at the University of Illinois on 13C Fourier Transform NMR in Chemistry and Biology.

Ernest Camagne is serving on the National Academy of Sciences Committee on IUPAC, and the International Ex-
The Fall ACS Meeting Social Hour at the Belmont Plaza Hotel on August 29 attracted a larger group of alumni members and friends gathering for news and conversation. Among those dropping by were J-Bison, BREDENBURG (Post-PhD '62) who continues his affiliation with Nestle-Oy, in Finland. GEORGE BURNEK (PhD '62) who is now with the National Academy of Sciences. Among those dropping by were J-Bison, BREDENBURG (Post-PhD '62) who continues his affiliation with Nestle-Oy, in Finland. GEORGE BURNEK (PhD '62) who is now with the National Academy of Sciences.

The Newsletter editors need your help. Please send news of yourself or any other alumni about whom you have information. Below is a form to make it easier to send us the news.

**Name**

**Address**

**Date of degrees from IU:**

**Salary Range**

**Age**

**Years of Experience**

**Min.**

**Max.**

**Degree Required**

**Return to:** Miss Elizabeth Greene

Department of Chemistry

Indiana University

Bloomington, Indiana 47401