

# CHEM/LETTER

### See You Here for the National ACS Meeting March 20-25

#### CHAIRMAN'S MESSAGE

In 1916 Professor H. K. Benson, Chairman of the Chemistry and Chemical Engineering Department, said:

"Popular interest has lent itself to the problem of a more intensive application of the discoveries of science to the industrial life of the nation. . . . It is in part the inheritance of classical ideals and of cultural requirements that has retarded the advent of industrial problems as subjects of study and research in the curricula of our colleges. But now, apparently, a general awakening has come alike to industry and to the educational institutions with the result that both may be enriched by rational cooperation."

Those views sound remarkably like statements being made in 1982 on this subject. Indeed, the paradigm defining university-industry interaction has changed at least twice in this century and is changing once again. The eighties will witness a significant and long overdue shift in attitudes and in levels of cooperation between academe and industry.

Dramatic examples of this have already been provided in the field of molecular biology. Likewise, a number of new cooperative ventures in the fields of semi-conductor and computer technologies have recently been established. Probably the most ambitious program launched so far is that represented by the Council for Chemical Research. For the past four years, CCR has brought together leaders from about 40 of the major chemical companies and the chairs of PhD granting chemistry and chemical engineering departments from over 100 universities in the country. A major objective of CCR is to enhance the environment for basic research and advanced training, and to stimulate more direct one-on-one interaction between scientists in industry and in universities.

CCR member companies have already increased their support of basic research in universities by roughly five million dollars in '82-'83. Although this number is expected to grow, it will remain merely a perturbation, albeit a significant one, on the federal support program which is an order of magnitude larger than that industry is likely to provide. An element at least as important as the funding itself is the goal of catalyzing greatly expanded communication and cooperation between the two communities for their mutual benefit and the long term economic well-being of the industry and, in turn, the universities.

The Department has been an active participant in this development. In the spirit of the age, we appointed an Industry Advisory Committee for the Department this past year. Based on their recommendations and suggestion we are launching our first University-Industry Chemistry Forum

this fall. Leaders from interested chemical companies will be invited for a one-day visit to the Department. We will highlight the major areas of research, our advanced instrumentation and facilities, and special programs of potential value to industry. In turn, we will seek suggestions for services, short courses, or research of interest to a given company. If there are areas of mutual interest, we will arrange for a follow-up meeting between the appropriate scientists in the company and those in the Department. A couple of prototype experiments of this sort have been carried out elsewhere under CCR auspices and have proven to be remarkably rewarding for the participants.

What we are trying to say to those of you in industry, is that we want to participate with you in defining the new paradigm. If you feel such an experiment would be worthwhile for your company, please give me a call. I'll be happy to provide more details.

In keeping with the commitment represented by the efforts described above, the Department welcomed Dr. Hans Benesi to the faculty. Dr. Benesi, who took early retirement from the Shell Development Company, joined the Department on September 1 as Research Professor of Chemistry. His research, funded by an NSF grant held jointly with George Halsey, will focus on problems in catalysis. We believe Dr. Benesi's many years of industrial research experience will provide an important emphasis in the Department.

We are also pleased to welcome Paul Hopkins to the faculty ranks. Paul completed his doctoral work at Harvard in E. J. Corey's laboratory this summer. He was recently named a recipient of a Dreyfus Young Faculty Award, one of ten awarded nationwide. This appointment is the first new appointment in the Organic area in seven years.

Professor Lyle Jensen from the Departments of Biological Structure and Biochemistry has participated actively in the Department's affairs for many years. (He was one of the four alumni featured in last year's Chem/Letter.) As of September 16, 1982 he was appointed Adjunct Professor of Chemistry.

We are currently recruiting faculty in three areas: analytical, environmental and inorganic chemistry. In the latter two areas we are looking for established, more senior candidates. As always, we invite your suggestions regarding potential candidates. However, if you have heard about the financial problems in the State of Washington you may wonder how

we can be serious about recruiting. Well, sometimes we wonder about that too, but we do not wish to lose our momentum or to miss excellent, emerging opportunities. The need for training in chemistry, "the central science," is not diminishing. (Our enrollments are up 7% this fall. It remains to be seen whether this is a short-term fluctuation.) Retirements and resignations continue to occur from time to time. Therefore, we must continue each year to seek to add the strongest candidates to an already distinguished faculty despite economic uncertainties.

Professor David Ritter, who retired fully from the teaching program this June, continues his research on boron chemistry as one of our active emeritus colleagues. Professor Joe Norman's service in the Graduate School has been so highly valued that we have lost his services in the Department. On September 1 he assumed expanded, full time responsibilities as Associate Dean for Academic Programs and Research. Assistant Professor Larry Field left us this August to accept a position at Southern Methodist University in Dallas.

A special early retirement program for state employees was sufficiently attractive that two of our staff members elected to exercise the option. Jane Steil and Wendell Nygard retired on June 30. Fortunately we still get to see them from time to time when they come in to help us out in emergencies.

In an effort to increase communications with high school and community college chemistry teachers we have held a special open house in each of the past two years. Over a hundred teachers attend this event which is coordinated by Nancy Cooper, our creative Curriculum Adviser. This year we invited each teacher to bring along one student for a somewhat unusual program; our featured speaker was Linus Pauling who was on campus for a two-week period as the John Danz Lecturer. Professor Pauling's public lectures on Vitamin C were among the most heavily attended of any lectures at the University.

In May, Professor William N. Lipscomb spent ten days on campus as a Walker-Ames lecturer. His 3-d projections of enzyme structures add a special dimension to his stimulating presentations. Just this fall Professor Andreas Albrecht from Cornell presented our third annual Paul C. Cross lecture. The first two speakers in the series were Bryce Crawford and E. Bright Wilson. Your contributions to help establish this special lecture series are appreciated by the members of the Department.

The productivity of the faculty and their effectiveness in competing for scarce grant dollars despite the difficulties which abound is a continuing source of pride and satisfaction. Their efforts have allowed us to add an IBM Model 9198 FT-IR instrument with matching funds provided by an NSF grant. Similar efforts are underway in other areas of research but the chance for success will grow increasingly slim unless we see a major increase in funding at state and federal levels for replacement of obsolete equipment in the nation's laboratories.

Speaking of productive faculty, I wish to add a special note of appreciation. Vic Sivertz has shown outstanding dedication as Editor of Chem/Letter for more than a decade. Now in his eighties, he feels that he should be permitted to turn this responsibility over to someone else. We have reluctantly agreed. Vic, please accept our sincere gratitude for your generous help, and our warmest wishes for continued good health and happiness.

Come and visit with Vic and the rest of us at the ACS meeting next spring in Seattle.

Alvin L. Kwiram, Chairman

#### **ASSOCIATE CHAIRMAN'S MESSAGE**

Responsibilities as Assoc. Chairman have required more time which has been taken from research, but I am still active in the latter and in teaching.

The Department has held its ground with respect to getting new graduate students, but they are in short supply. Any assistance that can be provided will be appreciated. There are about 115 graduate students this fall.

A new plaque listing the names of Chevron Fellows is now in the entrance hall to the main office, as is one listing Outstanding Teaching Assistants.

Dr. Kwiram has accepted an additional 5 year term as Chairman. Dr. Anderson will continue as Associate Chairman.

#### **Seattle ACS Meeting**

The Department plans to have a Reunion of Alumni and Alumnae and spouses and families. It is too early to have exact times and places set now. So watch for notices in the C & E News (about mid January). The date of the meeting is March 20 to 25, 1983. This coincides with the University vacation period between winter and spring quarters. So schedule this in your plans; come and see your graduate school friends, classmates, your old professors and the not so old newer ones. Plan to see the changes in Bagley Hall, in the University and in Seattle. Bring an umbrella, just in case.

Included, as usual, is the Alumnus Report form, asking for news from you and your plans for the meeting. Write to us if you have questions, we will try to answer them.

A. G. Anderson, Jr.

#### FROM THE EDITOR'S DESK

Number 12 is a significant issue of Chem/Letter, appearing tardily to bring you word of the Spring Meeting of ACS in Seattle, March 20 to 25, 1983. C/L usually appears in October. We thought that would be too early for news about the meeting; hopefully this will be mailed about December 15. More on the March meeting is covered in the messages of the Chairman and Associate Chairman.

For me, No. 12 is a special and important issue in that it will be my last. When No. 1 appeared in 1971, I had no thought of continuing as editor this long. When I retired in 1967 I knew almost all of the PhD graduates, back to the twenties, and a large number of BS and MS students. It has been gratifying to keep in touch with many of this group. However, it is one of my regrets that I have not known the more recent graduates in the same way as the earlier ones. Even so, I have enjoyed writing about you and sometimes to you and may even continue that activity to some extent.

I am looking forward to seeing many of you at the March Meeting or, if that is not possible, hearing from you on the enclosed Alumnus Report.

Victorian Sivertz, Editor

#### **FACULTY AND STAFF NOTES**

- W. T. Borden 1) spent the fall of 1981 as a visiting scientist at the Institute for Molecular Science in Okazaki, Japan; 2) last spring was a Visiting Prof. at Princeton Univ., teaching a course on molecular orbital theory; 3) gave seminars at several universities in Japan and our east coast; 4) gave a plenary lecture at the 19th Conf. on Reaction Mechanisms in Salt Lake City and at an NSF Workshop on Physical-Organic Chemistry in Pingree Park, Colorado.
- G. H. Cady 1) is still working on solid gas hydrates; 2) In August presented a paper on the above at the 10th International Symposium on Fluorine.
- G. D. Christian 1) U. of Illinois ACS speaker, Dec. '81; 2) Invited Speaker at Symposium on New Directions in Molecular Luminescence, 1982 Pittsburgh Conf. and Exposition on Anal. Chem. and Applied Spectroscopy; 3) Arranged and chaired symposium on Ultratrace Element Analysis of Environmental Samples by AAS, 1982 Pacific Conf. on Chemistry and Spectroscopy; 4) Invited seminars at universities of Kentucky, Washington State, and South Alabama Medical School; 5) Chaired Anal. Chem. session 37th NORM; 6) Chair-Elect of Puget Sound ACS section.
- D. E. Eggers was a principal contributor to the departmental proposal for purchase of a Fourier Transform infrared instrument funded by NSF.
- T. Engel gave an invited lecture at The Las Vegas ACS National Meeting, March 1982.
- B. E. Eichinger 1) presented an invited paper at the Elastomers Division meeting of the symposium on Macromolecules of the IUPAC in Amherst, Mass., July 1982; 2) attended the Gordon Research Conference on Elastomers, July 19-23, 1982 in New London, NH; 3) presented an invited paper at the Symposium on Rheology at the Kansas City ACS meeting, Sept. 1982; 4) got a 2 year renewal of DOE contract "Rubber Elasticity."
- A. W. Fairhall has been invited to give a lecture on radiocarbon dating at ceremonies dedicating the new Radioisotope Center at Kyusho University, Fukuoka University, Fukuoka, Japan. Prof. Y. Takashima is the Director of the Center. He was a post doctoral fellow of Dr. Fairhall 1958-60 and lived in the Fairhall house.
- A. L. Kwiram served as chairman of the University and Industry Interaction Committee for the Council for Chemical Research. At the annual meeting in Houston in September he was elected Chairman of the Governing Board of the Council. He was invited to speak at the national ACS meeting in Las Vegas in the spring and also at an ACS Operation Interface meeting in Fayetteville, Arkansas in the fall. He continues to serve on the Executive Committee of the ACS Division of Physical Chemistry.
- J. Macklin during the summer of 1982 completed the second summer of a Stanford-NASA-ASEE Summer Research Fellowship working on a project related to chemistry of the origin of life and initiated a study of the interaction of amino acids with clay surfaces at elevated temperatures using Fourier transform infrared measurements.
- C. B. Meyer 1) Research on formaldehyde led to assistance to the US Dept. of Housing and Urban Development, the US Consumer Product Safety Commission, the states of Connecticut, Wisconson and Minnesota and the National Bureau Standards Institute in the formulation of federal, state and voluntary standards for formaldehyde in indoor air and building materials. The new book "Indoor Air Quality" (Addison-Wesley) reflects this research; 2) work on sulfur continues with cooperative pro-

- grams at UC (Berkeley) with data presented at the ACS Nat'l meeting in Las Vegas; 3) presented a plenary lecture at the International Rubber Research Hall of Fame in Akron, Nov. 1981.
- J. G. Norman is Associate Dean for Academic Programs and Research in the Graduate School.
- Y. Pocker 1) Delivered Congress Lecture on "Small Molecule Interactions with Carbonic Anhydrase" at the 6th International Conference on Solute-Solute-Solvent Interactions, Minoo, Osaka, Japan; 2) Chaired session on "Competing and Cooperative Processes in Solution" 3) Presented Conference paper on "Electrostatic Effects in Proton-Transfer Reactions;" 4) Plenary Lecturer at a) the Nagasaki Symposium on "Solution Chemistry Viewed from Bioorganic Aspects," b) the Tokyo Symposium on "New Trends in Solution Chemistry," and c) The Sendai Symposium on "State of Coordination Compounds in Solution;" 5) Guest Lecturer of Academia Sinica, Shanghai, China. Delivered three lectures at the Shanghai Institute of Organic Chemistry entitled: a) "Kinetics and Mechanisms of Catalysis of Organic Reactions," b) "The Molecular Basis of Chemical and Enzymatic Hydration," and c) "The Biophysical Chemistry of Insulin." As guest of the Shanghai Institutes of Organic Chemistry, Biochemistry and Materia Medica, Academia Sinica, participated in detailed scientific discussions; 6) Contributed papers on The Catalytic Activity of Liver Alcohol Dehydrogenase at the First International Congress of Alcoholism, Munich, Germany, and 7) Elected to the Advisory Board of Inorganica Chimica Acta.
- S. Raucher 1) gave invited lectures at the Nagoya Symposium on Organic Synthesis, Japan; the Pacific Conf. on Chemistry and Spectroscopy; the Univ. of British Columbia, Yale, Princeton, SUNY at Stony Brook and Temple Universities; 2) spent sabbatical quarter at Columbia Univ..working on conformational analysis of medium sized rings; 3) attended IUPAC Symposia on Organic Synthesis in Tokyo and Kyoto and Gordon Conference on Organic Reactions.
- B. S. Rabinovitch 1) has been elected to the Executive Comm. of the Division of Chemical Physics of the Amer. Phys. Soc. and appointed to the Review Committee of the Atomic Energy Laboratory, Notre Dame University; 2) will be on sabbatical leave at Rockefeller Univ. and Imperial College, Winter and Spring, 1983.
- D. M. Ritter, retired in June, has his last graduate student finishing in December. He has left his fourth floor office for a combined office and laboratory in Room 14.
- $\it{V. Schomaker}$  gave an invited symposium talk at the Amer. Crystallographic Assoc. meeting at UCSD, LaJolla in August.
- J. M. Schurr gave 9 invited lectures mostly on spectroscopic probes of internal motions in DNA. These were at 1) Conference on Biomedical Applications of Laser Light Scattering, Cambridge, England (Sept. 11, '81); 2) NIH Laboratory of Chemical Physics (Sept. 22, '81); 3) Naval Res. Lab. (Sept. 23 '81); 4) The Upjohn Co., (Kalamazoo, MI) (Sept. 24, '81); 5) Winter Polymer Gordon Conference (Ventura, CA) (Jan. 15 '82); 6) Univ. of Utah (Feb. '82); 7) Biopolymers Gordon Conference (Plymouth, NH) (July 5-9 '82); 8) IUPAC Macromolecules Congress Amherst, MA (July 12-16, '82); 9) Univ. of Michigan, Dept. of Physics (Sept. 22 '82). He also was organizer and chairman of the Symposium on New Laser Techniques in Biophysical Chemistry at the NORM ACS meeting in Eugene, OR, June '82.
- B. Weinstein. During the past year published Volume Six in his edited series Chemistry and Biochemistry of Amino Acids, Peptides, and Proteins and also aided in the issuance of volumes Twenty Seven and

Twenty Eight of *Organic Reactions*. This now makes a total of fifteen books in which he has acted as either editor or co-editor. In the Spring quarter he was on leave and spent five weeks in Israel at the Weizmann Institute and another seven weeks visiting universities and industrial firms in Greece, Italy, Switzerland, France, West Germany, and Great Britian. Talks were given at fourteen different institutions and some interesting new chromatographic and nuclear magnetic resonance techniques were seen at the same time. At the University of Padova he was honored by being given a Bronze Medal by the Centro di Studi sui Biopolimeri. In mid-October his one hundred-and-fifteenth paper appeared, which served to mark a year of wide travel and activity.

#### **ILLUSTRIOUS ALUMS**

Again we salute four of our alumni, chosen by the faculty, to be honored in this issue. Resumes of their careers are given below. The task of choosing them is made difficult, not due to finding candidates, but in selecting them. In this connection it should be pointed out that the newly created Industrial Advisory Committee constitutes parallel honors for several of our graduates. Alumni members of the committee are: Theodore Beck, PhD '53, Electrochemical Technology Corp., Seattle; John Neal, PhD '71, Georgia Pacific Corp., Bellingham; Gilson Rohrback, PhD '49, President, Rohrback Corp., Santa Fe Springs, CA 90670; Klaus Saegebarth, PhD '57, DuPont Co., Wilmington, DE; Edward Youngman, PhD '52, retired from Shell Chemical, Modesto, CA.

#### JOHN A. SHELLENBERGER

Dr. Shellenberger, born in Moline Illinois, in 1900, spent most of his youth in this state. He interrupted his high school education to serve in World War I. After high school he entered the University of Washington, obtaining the B.S. in chemistry in 1930. His graduation was delayed due to working in a very relevant field as a chemist for the Fisher Flouring Mills in Seattle.

He entered Kansas State University to take graduate work in Milling Technology, obtaining the M.S. degree in 1931. He taught agricultural chemistry at the University of Idaho for one year and then accepted a Rockefeller Fellowship for work in cereal chemistry in the Biochemistry Department at the University of Minnesota. This resulted in the PhD degree in 1935.

Following this, Dr. Shellenberger was head of Products Control, Mennel Milling Co., Toledo, Ohio, 1935-1940; head of the Biochemical Division of Rohm & Haas 1940-42 and consultant to the Argentine government 1942-44. Leaving Argentina, he was appointed head of the Dept. of Grain Science and Industry at Kansas State University where he remained until reaching mandatory retirement age.

While at KSU, Dr. Shellenberger held many short-term assignments on grain technology in numerous foreign countries: for the Institute of Inter-American Affairs, the U.S. Dept. of State, the Dept. of Agriculture, the United Nations and several private companies. In 1948 he served as Chairman of the U.S. Delegation to the FOA meeting on Grain Conservation in Cali, Columbia.

He has published about 200 technical articles and co-authored the book, *Bread Science and Technology*.

- Dr. Shellenburger has received these honors:
- First recipient of the Association of Operative Millers Gold Medal for outstanding contributions to milling technology. 1966
- Outstanding Achievement Gold Medal of the University of Minnesota.
   1966
- 3) Neumann Medal sponsored by the German Cereal Industry. 1967
- 4) First Recipient of the Cincinnati Section of the AACC Scroll, honoring Frank Schwain.
- 5) Recipient of the C.H. Bailey Gold Medal, sponsored by the International Ass'n. of Cereal Chemists awarded in Vienna in 1976.
- Recipient of the Kansas State Univ. Alumni Medallion and made Distinguished Professor Emeritus 1971.
- 7) Shellenberger Hall, on the KSU campus was dedicated in 1961.

Dr. Shellenberger was married in 1939. He and his wife live in Manhattan, Kansas, and have three married daughters.

#### **JERRY A. NELSON**

Dr. Nelson was born and educated in Durango, Colorado. He attended the Univ. of Washington during and after World War II completing the NROTC program and receiving his naval commission. He served 2 years in the South Pacific during World War II. He earned his B.S. degree in 1946 and PhD degree in 1950 both from the University of Washington. While a graduate student he held the Shell Oil and Public Health Science Fellowships. He was Dr. A. G. Anderson's first PhD student.

In 1950 he was hired as a research chemist by the DuPont Co at Jackson Laboratory in Deepwater, NJ. During his career with DuPont, he conducted and directed research in the areas of polymers, fluorochemicals, surface chemistry, textile chemicals, aromatic intermediates, dyes, and new product development. Early in his career he published on the chemistry of Azulene with Dr. Anderson and others. Additional publications dealt with the chemistry of isocyanates and polyurethanes. Nelson holds 12 patents dealing with polymers and organic titanates with many foreign equivalents. From 1969 to 1976 he directed the New Products Division for the Organic Chemicals Dept. at the Experimental Station in Wilmington, DE. Between 1978 and 1982 he administered the Special Compensation Award Plan for the Chemicals and Pigments Dept.As an avocation he designed and built numerous instruments and mechanical devices used by the DuPont Co. for elastomer characterization. This interest has extended into tool making and the designing and making of jewelry. He and his wife, Carmen, were married in 1944 and since coming East, have lived in Newark, DE. They have 2 daughters and a son. Upon retirement, Nov. 30, 1982, he and Carmen plan to enjoy traveling in their camper, hiking, hunting and fishing.

#### **ANDREAS C. ALBRECHT**

Dr. Albrecht was born in Berkeley in 1927. It is not surprising that he attended the University of California, obtaining the BS degree in Chemistry in 1950. He came here directly and obtained the PhD in 1954, working in the field of spectroscopy with Dr. William Simpson. He held the Gulf Oil Fellowship in 1953-54.

Following this, Albrecht spent two years as a research associate at MIT. He then joined the Cornell University faculty as a instructor in 1956 and rose to the rank of professor in 1965.

DEPARTMENT OF CHEMISTRY, UNIVERSITY OF WASHINGTON			ALUMNUS REPORT
Name	Degree(s	at U of W	Year(s)
Home Address			
Other Degree(s)	Institution(s)		Year(s)
Position	Organization		
Business Address			
News Notes:			
I am planning to attend the March, 1983, AC	S meeting in Seattle: Yes 🗌 No	☐ Maybe ☐	
Comments and Questions:			
News of Other Graduates:			
Data	Cimpod		

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Attn: V. Sivertz

Although Dr. Albrecht continued on the Cornell faculty, the following appointments indicate his far-reaching activities at other institutions. He was a US-USSR Academy of Science Exchange professor in 1963-64 and repeated that in 1972; a visiting professor at Univ. of Arizona 1967; a National Science Foundation Sci. Fac. Fellow 1970-71; a visiting professor at Univ. of Cal., Santa Cruz, 1971; two visiting professorships, closer to home, at SUNY College at Purchase, NY and at Rockefeller Univ. filled the 1979-80 year. On Sept. 27, 1982 we were glad to welcome him as the Paul C. Cross lecturer speaking on "The Non-Linear Interaction of Light with the Molecular Condensed Phase."

It is to be expected that Dr. Albrecht is in demand for editorial tasks. He is on the editorial boards of Spectrochimia Acta (1964-); Chem. Phys. Letters (1968-); J. Ramanspectroscopy (1973-); Ann. Rev. Phys. Chem (1979-) and J. Chem. Phys. (1970-1973).

He was on the Advisory Committee to the US Academy of Science on USSR and Eastern Europe Scientific Exchange 1960-74. He has been a consultant to Eastman Kodak since 1966.

Dr. Albrecht's 119 published papers cover a wide range of spectroscopic problems in the condensed phase. The main areas of research are: one and two-photon polarized spectroscopies, non-linear optical properties, resonance Raman spectroscopy, photoconduction and photophysics in organic solids, thermal lensing spectroscopy, and local mode analyses of complex systems.

Dr. and Mrs. Albrecht, married in 1951, have four children.

#### JAMES CHEN MIN LI

Dr. Li was born in Nanking China in 1925. He received the BS degree in Chemical Engineering from the National Central University, Nanking in 1947. Entering the University of Washington he was granted the MS degree in 1951 working with Dr. Gregory on "Heats of Solution and Formation of Some Iron Halides." His doctorate degree, granted in 1953, was done with Dr. Ritter on "Decomposition of Nitrosyl Disulfonate Ion."

Dr. Li was a research associate at the Univ. of California, Berkeley 1953-55; then one year each at Carnegie Inst. of Tech. and as a physical chemist at Westinghouse. From 1957 to 1969 he was with U.S. Steel Corp. as Scientist, Senior Scientist 1959-63 and Staff Scientist 1963-69 responsible in the study of mechanical behavior of steels and other materials.

From 1969-71 Li was Manager, Strength Physics Dept., Materials Research Center, Allied Chemical Corp., responsible for design, purchase, and operation of a materials laboratory, and for recruiting a group of professional people in Materials Science.

In 1971 Dr. Li came to the University of Rochester as the Albert A. Hopeman Professor of Engineering, an endowed chair. Concurrent academic appointments before and after the Rochester post were 1) Visiting Professor, 1964-65 and Adjunct Professor of Metallurgy, 1965-71, both at Columbia University; 2) Adjunct Professor, Stevens Institute of Technology, 1971-72 and 3) Visiting Professor, Humboldt Awardee, Ruhr Universitat Bochum, West Germany.

Other honors bestowed on him are the Champion H. Mathewson Gold Medal Award of the Metallurgical Society of the American Institute of Mining, Metallurgical and Petroleum Engineers (1972); the Robert F.

Mehl Gold Medal and Institute of Metals Lecturer, Metallurgical Society of AIME (1978); Alexander von Humboldt Award for US Senior Scientists (1978); Fellow of Amer. Soc. for Metals (1979); and Fellow of Amer. Physical Soc. (1980).

Dr. Li has 150 publications dealing mostly with metals and alloys in the fields of *Thermodynamics, Polymeric Materials, Impression* and *Indentation Experiments, Imperfection Mechanics in Solids, Rate Processes* in *Plastic Deformation, Theories of Dislocation and Interaction, Elastic Theories of Dislocation Boundaries, Thermodynamics and Kinetics,* and *Irreversible Thermodynamics. He has had 16 PhD and several MS students.* 

## WHERE THEY ARE . . . WHAT THEY ARE DOING

To economize space, abbreviations are used, particularly for the educational institutions, and PD is used for postdoctoral. Except for new addresses, the following listings will just indicate by institution where the respondent is. Complete addresses may be obtained by writing the editor.

#### The Twenties, Thirties and Forties

John Dassow, BS '49, retired after 34 years at National Marine Fisheries Center in Seattle.

Dana Harter, PhD '47, now living at 10011 Briar Forest, Houston, TX 77040

Irwin Pearl, PhD '37, acts as a consultant in wood chemistry but retains an office in the Institute of Paper Chemistry, POB 1039, Appleton, WI 54912.

Gilson Rohrback, PhD '49, Rohrback Corp., 11881 E. Telegraph Road, Santa Fe Springs, CA 90670.

Waldo L. Semon, PhD '24, Hudson OH, was inducted into the Plastic Hall of Fame at ceremonies in June. He was with B. F. Goodrich for 40 years after teaching here for 4 years.

#### The Fifties

Harold Booker, MS '55, has been 27 years with Boeing; now in Contract Administration. Home address: 9270 C - 51st Ave. S., Seattle, WA 98118.

T. Felder Dorn, PhD '58, acting dean of Arts & Sciences, Kean College of New Jersey. Home address: 23l Sagamore Road, Millburn, NJ 07041.

Roger Eng, BS '58, is a dentist in Sunnyvale, California and is mayor of nearby Los Altos.

Jay Erickson, PhD '54, now at 3697 F Road, Palisade, CO 81526.

Sidney Leahy, PhD '54, elected Group Vice-President, Memory Technologies, 3M Company, St. Paul, MN 55101.

Richard McDonald, PhD '57, Kansas State University, delivered a plenary lecture on the "Dynamics of Organic Ion-Molecule Reactions in the Gas Phase" at the 19th Conf. on Reaction Mechanisms, June '82 at the University of Utah.

Donald Setser, PhD '61, received the 37th Midwest Award in Nov. '81 at the Regional Meeting in Columbia, MO.

Thomas Shryne, PhD '55, retired from Shell Development. Home address: 10918 St. Mary's, Houston, TX 77079.

Edward Youngman, PhD '52, says he will be at the Spring ACS meeting in Seattle March 20-25. Others?

#### The Sixties

Gary Allen, BS '67 (PhD elsewhere), is research head in the color photographic division of Eastman Kodak Labs, Rochester, NY.

Fred Dorer, PhD '65, is Provost and Vice President, Sonoma State University, Rohnhert Park, CA 94928. He was appointed Dean of the School of Natural Sciences Aug. 1981.

Darryl DesMarteau, PhD '66, is Head of Chemistry at Clemson University, Clemson, SC 29631, as of Aug. 1982.

Jurgen Exner, PhD '68, organized a 2-day symposium on "Detoxification of Hazardous Waste" at the Aug. 1981 ACS Meeting in New York and presented a paper on destroying tetrachlorodibenzo-p-dioxin in wastes. He was chair of the East Tennessee Section of ACS in 1981.

Frank Hunter, PhD '66, new address: 5423 - 134th Ave. SE, Bellevue, WA 98006.

Colin Kennard, Post. Doc. 1963-64, outlines his many activities since then. Now at University of Queensland, Brisbane 64067, Australia.

Juey H. Lai (Formerly Rai), PhD '69, received the H.W. Sweatt Award, Honeywell's highest technical honor. It included a \$3000 prize and trip for him and his wife to a IUPAC symposium on macromolecules in Strasbourg, France, July 1981.

Charles Ludwig, PhD '62, retired from Georgia Pacific Co., Bellingham and resides at Waldron, WA 98297.

Charles Lutz, PhD '62, has been appointed to a new 3-year endowed chair in the sciences at Mills College.

Kenneth Maloney, PhD '68, now with Allied Chemical Corp. Home address: Delwood Road, Chester, NJ 07930.

F. MacGregor Miller, PhD '68, is Director of Research at Ideal Basic Industries, POB 1667, Ft. Collins, CO 80522.

Michael Wiley, PhD '69, had sabbatical leave in 1981 at University of Liverpool. Now chair of chemistry at Cal. Lutheran College, Thousand Oaks, CA 91360.

#### The Seventies and Eighties

Patrice L. Blakeway, BS '80, left ARCO's Cherry Point refinery, going to the Houston refinery: POB 2451, Houston, TX 77001.

Larry Butler, PhD '72, was transferred, due to closing the Wenatchee lab., to: Environmental Protection Agency, Sabine Island, Gulf Breeze, FL 32561.

Jeffrey Corkill, MS '70 (PhD University of Exeter, England '77) is asst. prof. at Eastern Washington University, Cheney, WA 99004.

Susan Henrichs, BS '75 (PhD, MIT Ocean Inst., Woods Hole, MA, 1980) will be asst. prof. of Environmental Sciences, University of Alaska, Fairbanks, AK. She was President's Medalist here, 1975.

Phyllis Hoar, PhD '75,is research asst. prof., University of Miami, Physiology and Biophysics, POB D 16430, Miami, FL 33101.

Jeanne Hsu, BS '79, 6136 Hillegass Ave., Oakland, CA 94618.

Michael Maroney, PhD '81, is with Chevron Research Co., 576 Standard Ave., Richmond, CA 94803.

Janice McOmber, BS '76 (PhD Northwestern), 3174 Greer Rd., Palo Alto, CA 94303.

Jeff Moulton, BS '79, is associate chemist, Ampex Corp., 401 Broadway, M.S. 22-01, Redwood City, CA 94063.

Mike Nelson, BS '70, Chief Chemist, Laucks Testing Labs., 940 S. Harney St., Seattle, WA 98108.

Scott Owen, PhD '70, is director of Computer Applications Lab., Atlanta University and assoc. prof., Chemistry there, - Atlanta, GA 30314. He is also chair of the Task Force on Computers in Chem. Educ. and managed the 5th Workshop on Computers in Chem. Educ. in Aug. 1981. He reports that James Currie (PhD '70) spent his sabbatical in the Atlanta lab.

Kenneth Raymond, PhD '80, is asst. prof., Department of Chemistry, Grinell College, Grinell, IA 50112.

Tracy Rold, PhD '77, is with IBM, POB 1900, Dept. 5 IT/023, Boulder, CO 80302.

Bo Erland Saxberg, BS '78 (Summa Cum Laude), received the BA degree in Physics at Cambridge University, England, and is now enrolled on a combined M.D. program at Harvard and a PhD at MIT.

Daryl Vogel, BS '79 (in Chem./Zool./Micro.), is now working for a PhD in the Department of Pathology, SM-30, University of Washington.

#### WE REGRET THE PASSING OF . . .

John Hollahan died in San Francisco November 22, 1981. He received the BS degree in 1959 and the PhD in 1964 both in chemistry from the U. of W. He worked for NASA and later as a research chemist for the International Plasma Corp., Hayward, CA.

William Jensen died in Edmonds in June 1982. He worked in the Department of Chemistry storeroom for 28 years, retiring as manager in 1978.

Clinton M. Kelley fell to his death while climbing Mt. Shuksan, June 20, 1982. He obtained his BS degree from Oregon State University and the PhD from the University of Washington in 1941. He taught for a while at Western Washington State University and later at Denver University where he served several years as chairman until his retirement in 1974.

Robert W. Vaughan died October 18, 1981 in Sumner, WA. He received his BS degree in chemical engineering in 1930. He worked for Fibreboard Products from 1930 until retirement in 1972 as a chemist and finally as manager of the Sumner plant.

#### **GRADUATE AND UNDERGRADUATE DEGREES**

Doctoral Degrees (15) (Major Professor and Date)

Subhasis B. Biswas, Dept. of Biochem., Stanford U. School of Medicine, Stanford, CA 94305 (Pocker 8/81).

Richard W. Brotzman, Jr., Owens-Corning Fibreglass Technical Center, Granville, OH 43023 (Eichinger 12/81).

Robert W. Daasch, Dept. of Chemistry, UW (Davidson 3/82).

William E. Dasher, Dept. of Chemistry, Univ. of Puget Sound, Tacoma, WA 98416 (Andersen 8/81).

Biswanath De, Dept. of Chemistry, Harvard Univ., Cambridge, MA 02138 (Andersen 8/81).

Mahmoud A. El-Hinnawi, Chemistry Dept., Yarmouk Univ., Irbid, Jordan (McAlister 8/81).

Andria E. Elia, Dept. of Chemical Engineering, UW (Lingafelter 6/82).

Mary L. Gianelli, 10 Colony Blvd., Apt. 5-540, Wilmington, DE 19802 (Christian 8/81).

Ronald C. Haaseth, Dept. of Chemistry, UW (Weinstein 3/82).

Ki-Jun Hwang, Sterling Chem. Lab., Yale Univ., 225 Prospect, New Haven, CT 06520 (Raucher 12/81).

Timothy A. Kelly, Dept. of Chemistry, Pacific Lutheran Univ., Tacoma, WA 98447 (Christian 8/81).

Gary A. Koolpe, College of Pharmacy, UW (Raucher 12/81).

Vadim Krongauz, Dept. of Chemistry, UW (Rabinovitch 12/81).

Allan G. Miller, 1736 Davison Ave., Richland, WA 99352 (Macklin 3/82).

Mario Ospina, Goddard Space Flight Center, Greenbelt, MD 20770 (Meyer 3/82).

#### Master's Degrees

William M. Adams, Jr., Beckman Instruments, Inc., 1117 Calif. Ave., Palo Alto, CA 94304 (Raucher 12/81).

Jean M. Brady, 10 Parkman Road, Reading, MA 01867 (Eichinger 6/82).

Sheryl J. Day, 14464 Sunrise Drive N.E., Bainbridge Island, WA 98110 (Davidson 3/82).

Timothy A. Getek, Dept. of Chemistry, Univ. of Houston, Houston, TX 77004 (Rose 6/82).

William P. Green, Dept. of Chem., UW (Rose 3/82).

Ralph D. Haddock, 5 E. Sellers Road, U.S. Naval Academy, Annapolis, MD 21402 (Anderson 6/82).

Mark Hannick, Dept. of Chemistry, UC-Davis, Davis, CA 95616 (Raucher 6/82).

Rae S. Mackay, III, 169-108th Ave. S.E., Bellevue, WA 98004 (Andersen 3/82).

Khe Thanh Nguyen, Dept. of Chemistry, UW (Andersen 3/82).

Suzanne M. Niedzwiecki, 6549 28th Ave. N.E., Seattle, WA 98115 (Epiotis 8/81).

John R. O'Neill, Dept. of Chemistry, UW (B. Robinson 6/82).

Hassan M. Swaidan, Dept. of Chemistry, UW (Christian 3/82).

Reiko Tosa, 4-8-18 Nakayama-Satsukidai, Takarazuka, Japan (Rabinovitch 6/82).

#### **Undergraduate Degrees**

Of the 65 degrees granted this year 46 were BS and 19 BA. 51 were men and 14 women. It is interesting that all but one of the women earned the BS degree.

Space does not permit listing all, but the following are noteworthy. Data on graduate studies are not known in all cases.

Alejandro A. Aruffo, Harvard Univ. (Biophysics)

Christopher F. Beaulieu, UW (Medicine)

Janet M. Carroll, UW (Medicine)

David L. Clark, Indiana Univ. (Inorganic Chem.)

Stephen J. Dodds, Oral Roberts Univ. (MD/PhD, Biochem.)

Wayne A. Gerard, St. Louis Univ. (Medicine)

Robert B. Hall (Medicine)

Victor K. Hamasaki, UW (Medicine)

David F. Hampson, Univ. of S. Carolina (Medicine)

Eric J. Hoch, Environmental Chem (Summer Prog.)

Ke Ming Hsieh, Cornell Univ. (Chem. Engr.)

Paul W. Johnson, UW (Medicine)

Patricia J. Kesler, UW (Chemistry)

Tadeusz J. Kochel, Iowa State Univ. (Biochem.)

Jeanne M. Larsen, UW (Medicine)

Shi-Yi Liu, Univ. of Illinois (Chemistry)

Philip N. Lowe, Univ. of Chicago (Medicine)

Linda A. Mihalik, UW (Chem. Engr.)

Stephen L. Moulton, UW (Medicine)

Robert A. Osborne, UW (Dentistry)

Diane M. Puetz, UCLA (Biochem.)

Tetsukuni Sugano, UW (Chemistry)

Michael R. Tabet, Univ. of Wyoming (Chemistry)

Andrew A. Voorhis, UW (Oceanography)

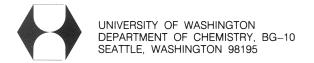
William F. Wacholtz, Tulane Univ. (Chemistry)

Scott H. Werden, UW (Geophysics)

Mark E. Westling, Univ. of Minnesota (Organic Chem.)

Loren D. Williams, Duke University (Physical Chem.)

In conjunction with the national spring meeting of the ACS, the Department of Chemistry will offer a brief tour of the Department, followed by a social hour and dinner for all alumni on Monday evening, March 21, 1983. Transportation will be provided. For details and reservations, please write to LeRoy G. Hornbeck or call him at (206) 543–1612.



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