

DEPARTMENT OF CHEMISTRY  
CORNELL UNIVERSITY  
ITHACA, NEW YORK 14853  
U.S.A.

# NEWSLETTER

Issue No. 27

August 1980

## CHAIRMAN'S COLUMN

There is considerable news to report about our faculty over the past few months.

Our new colleague Dr. David Collum, Assistant Professor of Organic Chemistry, has arrived from Columbia and already has his research well underway. He is going about it with his accustomed energy and enthusiasm, and has become a marked presence in our Department even in the relatively few weeks that he has been here. We are looking forward also to the arrival of Professor John McMurry and Assistant Professor Barbara Baird later in August.

It has been recently announced that our longtime colleague, Professor Robert E. Hughes, has accepted the presidency of Associated Universities Incorporated. This is a high-level and nationally prominent position in science administration and policy. AUI is a consortium of a dozen universities, one of them Cornell, that is responsible for overseeing the activities of several major national laboratories including Brookhaven. Bob Hughes was a splendid choice for this important position. He has the congratulations and best wishes of all of us, though we shall sorely miss his presence in the Department.

The former students and associates of Professor Frank Long, led by Dr. Zafra Lerman of Columbia College in Chicago and by Dr. Edward Walters of University of New Mexico in Albuquerque,

recently organized a symposium in honor of Frank on the occasion of his 70th birthday. It took place on Saturday and Sunday, July 12 and 13, and was most enjoyable and exciting. Speakers were Dr. Alan Schriesheim of Exxon; Dr. Maurice Kreevoy, University of Minnesota; Dr. Bernard Feld of M.I.T.; and Dr. Walter Lynn, the new director of Cornell's Program on Science, Technology, and Society. Each paid tribute to a different aspect of Frank's extraordinarily varied career. The master-of-ceremonies at the banquet on the Saturday evening was a long-time friend, Dr. Jacob Bigel-eisen, Vice President for Research and Dean of the Graduate School at S.U.N.Y., Stony Brook. Marion Long was much in evidence, with her noted charm and gracious hospitality.

Professor Michael E. Fisher is a co-recipient of the 1980 Wolf Prize in Physics, which he will share with Professor Kenneth Wilson of our Department of Physics and with L. P. Kadanoff of the University of Chicago. The prize is given for their work on the theory of the critical points of phase transitions, particularly the development of the renormalization-group theory, a set of ideas and techniques of extraordinary power and scope. The prize of \$100,000 is awarded by the Israeli Knesset. (This year's Wolf Prize in Chemistry went to Henry Eyring.)

Professor Roald Hoffmann has been given an honorary degree by Yale University at their 279th Commencement: The citation read: "Over the past decade you have had a greater effect on the thinking of chemists than any other person. The clarity of your logic has simplified the complex and given new unifying principles to your science. Your concept of orbital symmetry will explain and predict chemical reactions. It is a key element in the development of modern syntheses for a variety of medicinally important compounds. It has a beauty to it all its own. Yale takes pride in conferring on you the degree of Doctor of Science." Yale has the tradition of keeping darkly secret the identities of those who will

be so honored, until the time of the award ceremonies themselves. All we knew in advance was that, for some mysterious reason, Roald had to be in New Haven at the time of Yale's commencement! Roald, with his characteristic modesty, would have said nothing about it afterward, either, and most of learned of that honor to him by reading about it in the New York Times.

It has just been announced that Professor Fred W. McLafferty has won the prestigious American Chemical Society Award in Analytical Chemistry sponsored by the Fisher Scientific Company. This is the country's leading award in analytical chemistry. Professor George Morrison of our faculty won it in 1971. With the present award to Fred McLafferty we now have official recognition of what we have known all along — that our Department has one of the leading programs in analytical chemistry in the country, and two of the world's leading analytical chemists.

We extend to Professors Fisher, Hoffmann, and McLafferty our most enthusiastic congratulations. We take the greatest pride and pleasure in the greatness of their accomplishments and in the renown they have brought to our Department.

This is the appropriate place also to mention that our faculty colleague Professor Robert C. Fay is one of the recipients of a Clark Distinguished Teaching Award of the College of Arts and Sciences for 1980. He is one of three winners of the award this year in our College faculty. We congratulate Professor Fay, and take this opportunity to acknowledge publicly how much we appreciate his exemplary contributions to our teaching program, both undergraduate and graduate. With one of the Clark awards for teaching assistants having gone also to Mr. Forrest Sheffy, as you may read elsewhere in this issue, we cannot feel that our Department's commitment to excellence in teaching has gone unrecognized!

Professor Jerrold Meinwald, after a quick trip to China last April, is organizing a NSF-sponsored "Sino-American Symposium on the Chemistry of Natural Products" to be held in Shanghai in October 1980. Professor Jon C. Clardy will also be participating in the symposium.

Professor Fred W. McLafferty spent the month of June at various institutions in Brazil on a UNESCO program for improving research at universities in developing countries.

Professor Charles F. Wilcox will spend his sabbatic leave next year with Professor Victor Gold at King's College in London. His stay there is sponsored by a Faculty Research Grant from The Chemical Society.

It was as always a great pleasure to see many of you at our Alumni Open House in June. This was presided over with his usual energy and expertness by Professor Emeritus A.W. Laubengayer, with the able assistance of our Executive Director, Earl Peters. A new feature of this year's gathering was a glassed-in display case of photographs of as many of Cornell's past Professors of Chemistry as Lauby has so far been able to collect. I was particularly interested in the striking pictures of J.G. Kirkwood and P.J.W. Debye, two of the giants of theoretical chemistry, who established the strong tradition for that subject in our Department — which, as you have seen, is being so effectively continued.

Our determined and sustained efforts to acquire a high-field superconducting NMR for our departmental facility have finally succeeded, and we look forward to the arrival of the new instrument this September. Many people have contributed to the success of our efforts. The project was ably and energetically led by Professor Gordon Hammes, the Chairman of our departmental NMR committee. We had considerable help and support also from our university administration, particularly President Emeritus Dale Corson, Provost Keith Kennedy, Vice President W.D. Cooke, and

the university's Development office. Professor Robert Barker, head of the Biology Division, made an important contribution, and Rohm & Haas Corporation made a substantial donation in support of our efforts. We had valued support also from the Witco Corporation, a most generous personal contribution from Dr. Mary Schuster Jaffe, for which we are grateful.

The need for major new instrumentation in our Department will stop when chemistry stops — but not before! The next project of this kind, which we have already begun to pursue, is the creation of a departmental computing facility. A committee of our faculty headed by Professor Jon Clardy is leading our efforts in this direction. We shall submit a proposal to the National Science Foundation, and, if that is successful, as we hope it will be, we shall then seek the necessary matching funds as we did for our NMR. We hope to ensure for the coming five years (with the present rate of change both of computer technology and laboratory practice I hesitate to say "decade") effective computing — including, of course, facility for extensive numerical calculation, but also rapid data acquisition and automatic control of experiments. You will be hearing much more about this as our plans and proposals progress.

I look forward to seeing some of you at the ACS meeting in San Francisco at the end of August, as well as to greeting you on your occasional, and always most welcome, visits to Ithaca. It will be my pleasure to address you again in the March 1981 issue of our Newsletter, there to bring you up-to-date on the activities in our Department.

B. Widom

## Lauby's Recollections

### Open House for Chemistry Alumni. The Chemistry Picture Gallery.

The Cornell Alumni Weekend this year was held June 12, 13, and 14. Interesting events of great variety were engineered by the Alumni Office which is doing a fine job of providing many options from which returning alumni may choose. Ideal June weather blessed this year's show. Continuing the tradition started in 1968, our Open House for reunions of chemists was held in the Faculty Lounge of Baker Laboratory, Friday afternoon. In spite of strong competition with other scheduled sessions, many Alumni visited Baker. Emeritus Professors Lynn Hoard, Bill Miller and Si Bauer joined me in hosting the reception. Chairman of the Department, Ben Widom, and other active members of the faculty dropped in from time to time, and graduate students and postdocs were invited to attend to make it a real family affair. John Piscopo provided a choice of two excellent iced fruit punches and a fine array of attractive cookies.

Of those returning, C. A. Walworth (B. Chem. '20), retired from a career in the glass industry at Charleston, W.VA., ranked first in order of seniority. Chape Condit (B. Chem. '22), ran a close second. Chape lives in Syracuse and comes every year to regale us with tales about his days with the Franklin Motor Company. Victor Chalupski (B. Chem. '25) and Orson Beaman (B. Chem. '29, M. Chem. '30) rounded out the 1920's vintage. Orson, retired from industrial pigment and paper research, gave us news of his colleagues at Glens Falls, N.Y., Floyd Green (Ph.D. '42) and Charlie Polzer (M.S. '40).

F. W. Schumacker (B. Chem. '30) now sunning himself at Boca Raton, FL. after helping Esso and Exxon expand, reminisced about Al-Djebbar parties and rowing on Cornell varsity crews. The 1930's crop also included Anna Louise Nestman (B. Chem. '30),

Henry N. Steuber (B. Chem. '32), A. E. Newkirk (B. Chem. '36, Ph. S. '40) and his wife Kay ('35). The Newkirks are avid ornithologists and were fresh from a five-day basic ornithology course at Cornell's Sapsucker Woods. Art reported that W. F. Gilliam (Ph. D. '39) has recently retired from G. E. , where he played a key role in the large scale production and exploitation of the silicones. Gilly has returned to his native South Carolina. F. C. Baker (Ph. D. '38) dropped in to say "hello".

Angelo Frosolone (A. B. '40) came from California for his 40th reunion. Among the more recent chemists who joined us were Warren G. Harms (A. B. '50), Jerry Panzer (Ph. D. '56) and wife Ginny. Donald Marshall (A. B. '58), A. M. T. Finch (A. B. '50), Ben Hehn (A. B. '60), Michail Lenowitz ('70) and D. B. Cathim (B. S. '77). Jack Kotz (Ph. D. '64) drove over from SUNY, Oneonta and brought Dr. Maria Helena Garcia of the faculty of the University of Lisbon, Portugal, who is spending the year in this country.

Besides meeting Cornell chemists at our Open House, I ran into others during the weekend. Robert J. Kleinhans ('35) and Eleanor Middleton Kleinhans ('35) toured Baker Lab and I later had a nice visit with them walking over to Barton Hall. I met with Alan Schade (B. Chem. '21) and other Class officers of '21 at the Statler Rathskeller to plan for our 60th Class reunion next June. Al and I hope to have a record number of the chemists of '21 attending and urge that you put this on your 1981 calendar right away.

The highlight of our Open House this year was the initiation of our picture gallery devoted to the history of chemistry at Cornell. As noted in earlier Newsletters, this has been one of my pet projects since retirement. The permanent gallery is now a reality. Glass-enclosed cork bulletin boards have been installed on the north wall of our Faculty Lounge in Baker Lab and our extensive collection of historical pictures is being arranged.

A series of pictures of our Chemistry Professors down through the years is well under way. Each picture will have an appropriate legend summarizing pertinent information. The intention is to add to this series as professors retire or leave for other commitments. (Pictures of the active Faculty are on exhibit on the first floor corridor near the main east entrance to Baker.) Space is also available for group pictures of faculty, students, and non-academic staff.

A second exhibit in our new gallery shows the tremendous development in housing for our Chemistry Department since its humble start in the one basement room of Morrill Hall in 1867. In efforts to provide adequate facilities for the rapidly developing load of instruction and research, our Department moved through a series of laboratories and has arrived at our present magnificent accommodations in the renovated Baker Laboratory, the attached Olin Research Wing, and the adjacent library for the physical sciences in Clark Hall.

A third feature of our exhibit focuses on the Baker Non-Resident Lectureship, which has played such a vital role since 1926 in bringing top-flight chemists and related scientists from this country and abroad to the Department, each for a term of lectures and conferences. Their protracted stays at Cornell develop close reactions with faculty and students and have been of great value in bringing in new ideas and information to add to our instruction and research. In four years attendance a Cornell undergraduate or graduate student has the opportunity not only of association with our resident full-time faculty but can profit from a series of leading visiting scientists who are at the forefront of the rapid advances taking place. The device of supplementing regular faculty with non-resident professors coming on temporary assignments had been dreamed up by Cornell's first President, Andrew D. White, to help solve the problem of providing instruction for the some 400 students who crowded to Cornell when it opened. Following this precedent, Professor L. M. Dennis, the

"King", dreamed up the Baker Non-resident Lectureships as added frosting to the new Baker Laboratory and George Fisher Baker generously donated a very adequate endowment. We have started an exhibit of pictures of past Baker Lecturers, together with a complete listing of these scientists.

The Chemistry Department urges alumni to visit our picture gallery and we will be delighted to receive donations of any pictures you may have which might fit in to expand our collection.

Late in June, Grace and I drove to West Falmouth, Cape Cod, to enjoy the hospitality of Bob Stillwell (B. Chem. '22, Ph.D. '26) and Hope Cushman Stillwell (A. B. '26). On the way we picked up Bing Vincent (Ph.D. '26) and his wife Grace. There was much reminiscing of the Stillwell's wedding in 1929 at which Bing had been best man and I an usher. Bob taught at the Universities of Vermont and Illinois and then went to the Dennison Paper Co. at Framingham, Mass., to direct research. Since retirement Bob and Hope oscillate between their home in Framingham, their cottage on Cape Cod, and their daughter Linda's home in Juneau, Alaska; what fine three worlds to enjoy. Bob and Hope know Cape Cod from A to Z and showed us many interesting places, relating much Cape folklore. Bing Vincent went from Cornell to Kodak and then to Mathieson at Niagara Falls to play a leading part in the development of the chlorinating agent HTH. After the merger of Mathieson with Olin, Bing worked in New York City, Baltimore, and Washington and now lives in retirement in New York City where he can be reached via the Chemist's Club.

While on the Cape we had a grand visit with Chuck Barton and his wife Cae. Chuck had been a graduate student with me at Cornell where he was noted as one of the best teaching assistants. In spite of a severe physical handicap he became a very successful professor of chemistry at Hobart College. Cae and Chuck brought "Wonderstrand Farm" house on Nauset Rd., N. Eastham, Cape Cod,

and retired there five years ago. They are having a happy time restoring the fine old farm house and taking part in community affairs. With a large garden and a flock of chickens, they lack only a cow to be self-sufficient.

Grace and I are fortunate to have so many Cornell friends well scattered around the country so we can see them on our trips and swap memories.

In coming Newsletters I hope to report on the evolution of the chemistry curriculum at Cornell down through the years.

A. W. Laubengayer

### BAKER LECTURES

Professor Richard N. Zare of Stanford University will present the Baker Lectures this fall — September to November, 1980.

### NEWS OF ALUMNI AND FRIENDS

Al Gessler (B. A. '42) of Exxon Elastomer Technology Division was recently awarded the Gold Medal of the Rubber and Plastics Institute of Great Britain in recognition of papers of "very high standards". This medal was last awarded in 1958!

### DEGREES AWARDED

68 Chemistry Majors received their B.A. degrees at the May Commencement. There were 27 M.S. degrees and 27 Ph.D. degrees awarded to graduate students during the 1979-80 academic year.

## GRADUATE STUDENT AWARDS

Richard Morrison was picked by the Chemistry Faculty to receive the Outstanding Graduate Student Award for the 1980-81 academic year. This \$500 award recognizes his outstanding contribution and progress in graduate studies and research. Michael Septak, Angelica Stacy and Brian Williams received Honorable Mention.

Forrest Sheffy was named as one of the recipients of this year's Clark Teaching Award for Teaching Assistants. The \$500 award was given in recognition of his fine teaching over the past several years.

Katherine M. Stika, who has just finished her work for a Ph.D. with Professor G. Morrison, was awarded the Annual Student Award of the Society of Applied Spectroscopy for exceptional scholarship and research by a graduate student.

Edward Arnold (Professor J. Clardy), Michael J. Cannarsa (Professor M. Goldstein), James R. Resch (Professor J. Meinwald), David W. Whitman (Professor B. Carpenter) all hold NSF Fellowships.

### For the academic year 1980-81:

Michael P. Barbalas (Professor F. W. McLafferty) was awarded the Analytical Fellowship of the Division of Analytical Chemistry of the American Chemical Society.

Douglas C. Batt (Professor B. Ganem) was awarded the Procter and Gamble Fellowship;

Jim-Son Chou (Professor E. R. Grant) was awarded the Exxon Fellowship.

The duPont Teaching Prizes this year were awarded to seven teaching assistants: Jack Goodman, Stephen Grubb, William Harris, Deborah Huntley, Akbar Nayeem, Lawrence Roe and William Tuszynski.

The Academic/Industrial Interface: A Cornell Symposium on Laser Applications in Chemistry

On October 20, 21 and 22, 1980 we shall hold this symposium here on campus. Co-chairmen of the symposium are: Professors E. R. Grant, P. L. Houston and J. R. Wiesenfeld.

The aim of this symposium is to provide a forum for industrial and academic scientists to work together in an effort to explore novel application of lasers to problems of practical importance.

We have invited speakers from industrial laboratories with active laser chemistry programs to join with members of the Cornell Chemistry Department in presenting a series of lectures with open discussion. To ensure the broadest possible view, we strongly encourage the active participation of laser specialists and non-specialists alike. It is our hope that this conference will be of interest to industrial scientists whose research programs do not now include laser related projects.

The speakers are: Phaedon Avouris, IBM, Thomas J. Watson Research Laboratories; Georgia Fisanick, Bell Laboratories; Stephen Harris, General Motors Research Laboratories; Andrew Kaldor, Exxon Research and Engineering; Robert Swofford, Standard Oil Company. And from the Department of Chemistry, Cornell: Andreas Albrecht, Simon Bauer, Jack Freed, Edward Grant, Paul Houston, Richard Porter, John Wiesenfeld and Richard Zare, the 1980 Baker Lecturer.

The symposium will consist of morning and afternoon sessions of lectures and formal discussion, coordinated with technical demonstrations. Ample provision will be made for informal discussion during organized social events (reception, banquet, luncheons, etc.).

There is a fee of \$150 per person for registrations received

by September 19. The fee for multiple registration made at the same time by persons from the same organization is \$ 125 each. Late registration (after September 19) will be accepted if space is available at a fee of \$:175.

The fee includes a reception on Sunday evening, continental breakfasts all three mornings of the conference, luncheons on both Monday and Tuesday, and the social hours and dinners on Monday and Tuesday evenings.

To obtain a registration form or if you wish further information, please contact Earl Peters, Department of Chemistry, Baker Laboratory, Cornell University, Ithaca, New York 14853.

CORNELL SOCIAL HOUR

Second Chemical Congress  
of the  
North American Continent

Wednesday, August 27, 1980

HOTEL ST. FRANCIS  
City Club Room

San Francisco, California

5:00 PM

Faculty Members

(Fall 1980)

A. C. Albrecht	B. Ganem	E. Peters
B. A. Baird	M. J. Goldstein	R. F. Porter
J. M. Burlitch	E. R. Grant	L. Que, Jr.
B. K. Carpenter	G. G. Hammes	J. R. Rasmussen
J. C. Clardy	R. Hoffmann	H. A. Scheraga
D. B. Collum	P. L. Houston	M. J. Sienko
W. D. Cooke	F. W. McLafferty	D. A. Usher
R. C. Fay	J. E. McMurry	B. Widom
M. E. Fisher	J. Meinwald	J. R. Wiesenfeld
J. H. Freed	G. H. Morrison	C. F. Wilcox

Emeritus Faculty

S. H. Bauer	F. A. Long
J. L. Hoard	A. W. Laubengayer
J. R. Johnson	W. T. Miller
M. L. Nichols	

CORNELL CHEMISTS

It would greatly help us in keeping better records if you would kindly inform us of any changes of address or circumstances by completing this form and mailing it to the Department of Chemistry, 122 Baker Laboratory.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

YEAR OF GRADUATION: \_\_\_\_\_

DEGREE, TITLES, APPOINTMENTS, PRESENT POSITION:  
\_\_\_\_\_

PERSONAL NEWS — for our News of Alumni and Friends Column:

- Department of Chemistry  
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FIRST CLASS