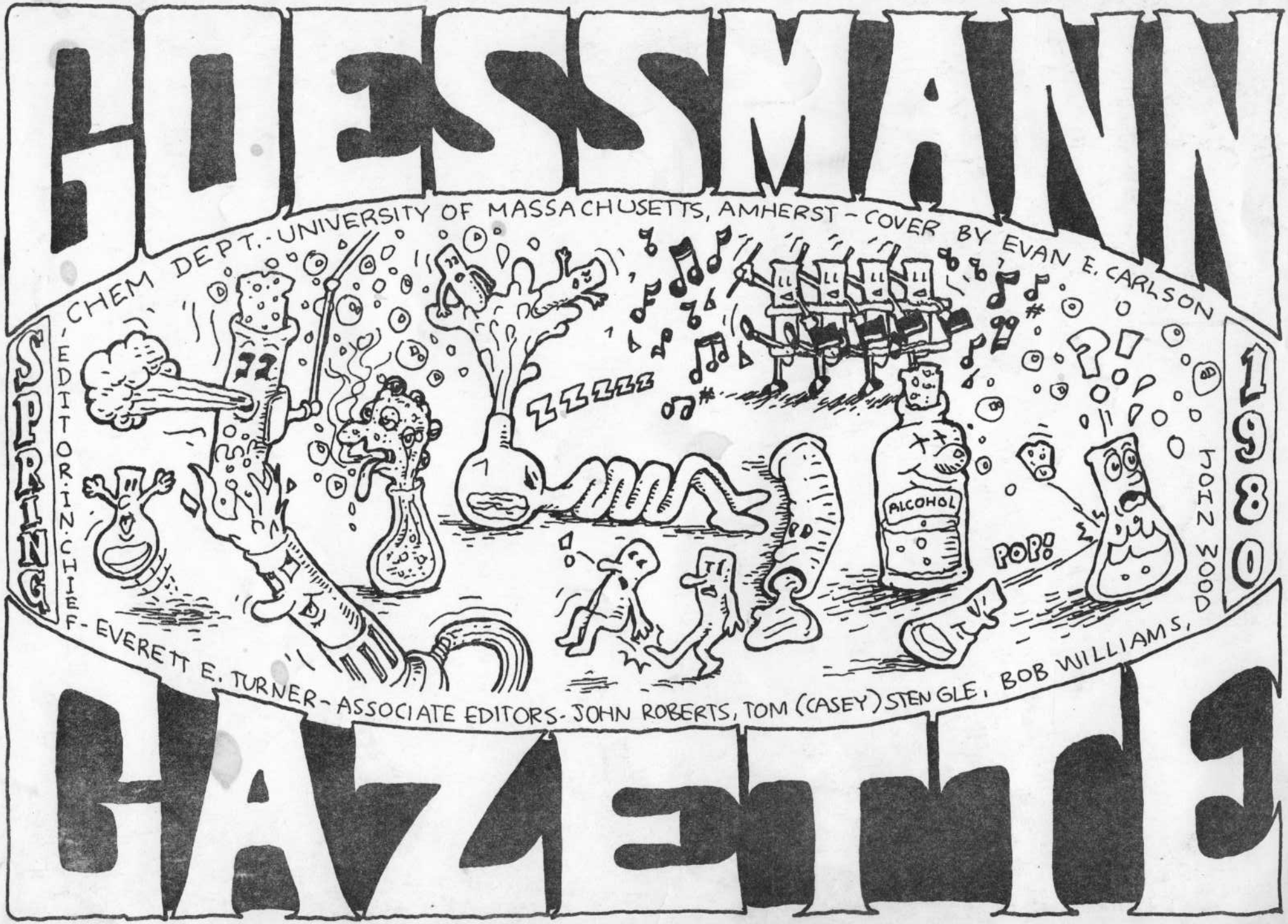
GOESSMANN GAZETTE



Chemistry at UMass 1978-1980

Ron Archer is taking a well deserved sabbatical leave this semester, so I am writing in his place to tell you what we've been doing since the last Gazzette reached you. Having two offices 15 floors apart hasn't increased my efficiency. (Needless to say no one is looking forward to Ron's return this June more than I am.)

Faculty activities are too numerous to list completely. Books keep appearing. Bob Rowell has co-edited Colliod and Interface Science, Vol. 1 - Academic Press with M. Kerken and A. Zettelmoyer while Peter Uden and Sid Siggia (joint with H.B. Jensen) have co-edited, Analytical Chemistry of Liquid Fuel Sources - Volume 170 of the ACS Advances in Chemistry Series. Sid Siggia (with J.G. Hanna) has brought out the 4th edition of his classic, Quantitative Organic Analysis via Functional Groups - Wiley. Bernie Miller's new one semester organic text, Organic Chemistry, the Basis of Life - Benjamin Cummings has appeared and Dorothy Barnes' and John Chandler's, Laboratory Experiments in General Chemistry - Glencoe is imminent. Journal Editors include Peter Uden - The Analyst and Steve Hixson - Molecular Photochemistry. Ray Barnes is not only editor but also publisher of ICP Information Newsletter. (ICP = inductively-coupled plasura for you uninitiates out there). It feels good to have the journal editor on your side, however the writer feels obliged to observe that it took a long time for Molecular Photochemistry to accept his last manuscript.

Bill McEwen is on the ground floor being a member of the ACS Committee on Publications. Both Bill and Bob Rowell are ACS Councillors and Bill is also Chairman of the Chemistry Section of AAAS. Sid Siggia contributed a speech for the ceremony marking the 50th anniversary of Journal of Analytical Chemistry. Dick Stein has ranged the furthest as a member of the first official US Chemistry Delegation to the

People's Republic of China led by Glenn Seaborg in 1977. You can read Dick's assessment of Polymer Science in China as a chapter in John Baldeschweiler's recent book Chemistry and Chemical Engineering in the People's Republic of China, published by ACS in 1979. Finally, a major shift in faculty responsibilities occurred this fall when George Oberlander relinquished his duties as Director of Laboratories and returned to full-time teaching as John George assumed these and other duties as departmental Business Manager. I want to take this opportunity to thank George Oberlander for his long service to the department as Director of Laboratories.

Amherst is just as pleasant as you all recall it, though a little larger; but it's good to get away. Our current sabbatical fugitives are Ron Archer, at the Naval Research Laboratory, Washington, D.C.; Ron Archer will finish his leave by travelling in East Germany (Leipzig, Jena, East Berlin, and Halle), Poland (Krakov) and Czechoslovakia (Prague); Steve Hixson at University of North Carolina; Bob Holmes, Universite Louis Pasteur, Strasbourg, France; and Sid Siggia, who is in residence but maintains a low profile. Bob Rowell has been on leave as a visiting Lecturer at University of Bristol (England) during part of this semester and will return there this summer. He is writing an introductory text on Colloid chemistry.

There have been some promotions: Ray Barnes, Dave Curran, Steve Hixson, Bob Rowell, and Peter Uden all to Professor and Marion Rhodes to Associate Professor.

In the undergraduate area I believe we are seeing the beginnings of significant change. A 40% drop in the secondary school population of New England by 1995 is projected. To succeed, the University must have attractive and academically sound programs and so an effective job of recruiting students. I do not expect our sound BS and BA programs in chemistry to change in fundamental ways, but we will do some fine tuning to meet student needs and must make substantial efforts to attract good chemistry majors at the entrance level. Ron Archer has lead the development of an exchange program with University of East Anglia, Norwich, England. UEA students will

spend the second of their 3 years at UMass while UMass students will spend their junior year at UEA. Careful coordination of curriculia insures that time spent abroad will count fully toward the BS degree. By the time the first full-scale exchange is made in fall 1981, we hope to have found sufficient scholarship support to reduce the cost of a year at UEA to that for an instate student at UMass + travel. A program of internships has begun in which students can earn up to 4 credits toward graduation for field experience. Emphasis is placed on the student learning new chemistry and techniques, and close supervision by a faculty sponsor is required. A program which will allow students to declare a "minor" in chemistry awaits approval by the Board of Trustees. An important factor in enrichment of our undergraduate chemistry majors experience is the existence of an active Chemistry Club which is a local ACS Student Affiliate. With the help of Tom Zajicek they have conducted a variety of activities, the latest of which was a visit to Cyanamide's research and production facility in Stamford, CT.

The number of excellent students graduating this year and last has made selection of department award winners a challenging task. Winners are listed below:

	Class of '79	Class of '80
Connecticut Valley ACS Award	Pamela Turci	Robert Quirbach
American Institute of Chemists Award	Robert Zwonik	Amy Braverman
Fessenden Award	Edward Januszkiewic	William Harwood
Merck Award	Bruce Smith	John Gawienowski and Keith Wilkins

As juniors, Amy Braverman won the ACS Analytical Division Award and Bob Quirbach was a recipient of one of 40 Alumni Scholarships awarded in a University-wide competition. (This writer feels that students in sciences and engineering have found it increasingly difficult to compete for University-wide awards owing to the relative lack of "grade

inflation" which has occurred in their areas.)

There have been no major changes in the graduate program in the last two years. Currently we have about 105 graduate students, and the class of 25 students which enrolled last fall was the largest in the last several years. First year students now attend a weekly "Faculty Research Seminar" at which our faculty discuss their research programs. Our greatest handicap in attracting qualified students is that we offer a lower stipend than strong competing departments (see below for more on budgets). Our greatest assets are the quality of our program and physical facilities and the attractive Amherst area.

The Chemistry Alumni Sponsored Distinguished Lecturer Series has measurably enriched our scientific life and the graduate (and undergraduate) program here. In the past year lecturers have been Richard Holm (Stanford University - soon to be at Harvard), David Hume of MIT, Jerome Benson of Yale University and Ronald Breslow of Columbia University. Dick Holm earned his BS at UMass in 1955 and his Ph.D. from MIT in 1959, and is one of two UMass graduates who are members of the American Academy of Arts and Sciences. He lectured during his visit to receive an honorary Doctor of Science degree from the University at the May 1979 commencement exercises.

Dick Holm is not the only alumnus to speak to us. Seminars have been presented this academic year by Richard Brown (inorganic division) from University of Maine, by Peter Gund-Merck and Charles Zepp-Polaroid (organic deivision) and Robert Pojasek (analytical division)-ERCO Energy Resources Corp. We are looking forward to visits from James Williams-Markem Corp. and Ronald Sahatijian-Polaroid later this semester. Two present graduate students have won University Fellowships (about 25 are awarded each year on a campus wide competitive basis): Scott Estes, who is working with Prof. Uden and Charles Poutasse, who is working with Prof. Barbara Kalbacher. Both