

UMSL CHEMIST

AUGUST 1978

In this second departmental newsletter, it is a pleasure to greet our UMSL Chemistry Alumni and to let you know about some of the department's activities in the past year. We are quite proud of our graduates and very interested in their professional development after leaving UMSL. We would very much like to be brought up-to-date on your own professional activities, so that sometime in the near future we might make-up and distribute to you a summary of where you and your former classmates are and what you are doing.

The first news item given below is a list of this year's graduates. You may be interested to know incidentally that a recent ACS study showed that UMSL ranks 22nd in the Nation in the production of ACS-certified chemistry degrees (our Bachelor of Science Degree). Among this year's B.S. graduates, Michael D. Ennis has been awarded a three-year National Science Foundation Predoctoral Fellowship for graduate study in chemistry. Mike, who was very active in undergraduate research and has co-authored several papers with Chemistry faculty, is one of only 38 undergraduates in the United States to receive this fellowship. He will begin doctoral studies at the California Institute of Technology this Fall.

1977-1978 GRADUATES

BLUME, Jeffrey	1/78	BA	
BULLOCK, Joseph W.	5/78	BS	cum laude
CUMMINGS, Anne E.	5/78	BS	
DANFORTH, Douglas	1/78	BA	
DAVIS, Jeffrey	5/78	BS	
DAVIS, Jerri	5/78	BS	magna cum laude
DELBERT, Dennis	5/78	BA	cum laude
ENNIS, Michael D.	1/78	BS	summa cum laude
ERICKSON, Rodney J.	5/78	BS	
FOLEY, James G.	1/78	BA	
FREDE, Michael	5/78	BA	summa cum laude
GERBER, Jon	5/78	BS	

GOEHLER, Ronald	1/78	BS	
GROSS, Brain	5/78	BA	summa cum laude
HILDEBRANDT, Mark	5/78	BS	
HINGST, Mark	5/78	BA	cum laude
HINRICHS, Thomas	5/78	BS	magna cum laude
HITT, Mary	5/78	BS	magna cum laude
IRWIN, Carl L., Jr.	1/78	BS	
KLEINE, Henry	5/78	BS	cum laude
LUTES, Denise	5/78	BS	cum laude
MOUTRAY, Russell W.	1/78	BS	
RATH, Richard	5/78	BA	
ROBINSON, Perry	5/78	BA	magna cum laude
STANLEY, Donna J.	1/78	BS	
TIMMERMAN, Dennis	5/78	BS	
VINEYARD, Dale	1/78	BA	
WAGNER, Nathan	1/78	BS	
WILLIAMS, Mark	1/78	BS	
WOODARD, Gerald	5/78	BA	
FINKES, Michael	1/78	MS	
KAEMPFE, Larry	5/78	MS	
BELLAVANCE, Pauline L.	1/78	Ph.D.	
PATON, Wm.	1/78	Ph.D.	
RANJBAR, Farhad	1/78	Ph.D.	

NEW FACULTY

We are very pleased to announce that James P. Riehl joined our Department last Fall as Assistant Professor of Chemistry. Dr. Riehl, whose research interests lie in the area of theoretical chemistry, earned his doctorate from Purdue University and his B.S. from Villanova University. Before coming to UMSL, Dr. Riehl held teaching positions at the University of Virginia Charlottesville and Purdue University.

MAJOR EQUIPMENT

The University of Missouri-St. Louis and Washington University have jointly purchased a JEOL FX-100 fourier transform NMR instrument under the sponsorship of the two universities and the National Science Foundation. We are optimistic that such cooperative efforts will continue to attract NSF support for major equipment funding for this department.

THE FACULTY

Professor C.W. Armbruster and A.F. Berndt are nearing completion of their introductory chemistry textbook which will be published by Prentice-Hall.

Professor K.W. Barnett, who has been on sabbatical leave at the University of Illinois-Urbana this year, has published articles on transition metal compound catalysis, stereochemistry, bonding and photochemistry in the Journal of Organometallic Chemistry and in Inorganic Chemistry. Dr. Barnett coauthored a paper at the 13th Midwest Regional Meeting and delivered an invited lecture at the National ACS meeting in Chicago.

Professor L. Barton, who has been on sabbatical leave this year at the Ohio State University, Columbus, Ohio, is the author of three chapters involving boron chemistry in a recent volume of Gmelin Handbuch der Anorganischen Chemie. Dr. Barton has published articles on boron heterocycles in the Journal of Inorganic and Nuclear Chemistry and presented a seminar on that topic at the University of Kentucky.

Professor A.F. Berndt, in addition to working on the Armbruster/Berndt introductory textbook, gave an invited talk on dental fluoride chemistry at the Central Missouri State University at Warrensburg, and served as Associate Dean of the Graduate School.

Professor E. Block is the author of a book titled "Reactions of Organosulfur Compounds" recently published by Academic Press, and of a chapter in volume 4 of Organic Compounds of Sulfur Selenium and Tellurium. Dr. Block continues to study organosulfur and organosilicon chemistry and has coauthored papers on these topics in the Journal of the American Chemical Society and talks at the Midwest ACS meeting in Chicago and the International Symposium on Organic Sulfur Chemistry Portoroz, Yugoslavia. Dr. Block has presented seminars at a number of U.S. and European universities, the latter during the tenure of a NATO fellowship (May-June).

Professor J.S. Chickos attended the 13th Midwest Meeting of the ACS, Rolla, Mo., and co-authored a paper on the gas phase thermolysis of diketene.

Professor E.R. Corey has continued to publish work on the solid state structures of tricyclic heterocycles in the Journal of Organometallic Chemistry and Acta Crystallographica. Dr. Corey also presented the invited talk "Symmetry in Science and Art" to the St. Louis Brewers' Chemists and in the "Wednesday Night at the Lab" series at the University of Illinois-Urbana.

Professor J.Y. Corey authored the review article "Silicon Chemistry" appearing in Annual Reports in Inorganic and General Synthesis - 1976. Dr. Corey presented a seminar at the University of Cincinnati on her studies of tricyclic organosilicon compounds and has published articles in the Journal of Organometallic Chemistry and Acta Crystallographica and coauthored talks at the Midwest Regional ACS meeting and National ACS Meeting in Chicago on that topic.

Professor D.L. Garin has coauthored articles on the chemistry of small-ring compounds in Tetrahedron Letters and the Journal of Organometallic Chemistry and has given invited talks to a number of St. Louis area groups. Dr. Garin has been appointed to the Governor's Commission on Hazardous Waste Management.

Professor H.H. Harris in collaboration with Professor J.J. Leventhal of the Physics Department, has received a \$55,000 renewal grant from the Office of Naval Research for the study of luminescence in collisions of ions with metal vapors. Dr. Harris's studies of collisional energy transfer have been reported

in the Journal of Chemical Physics, Chemical Physics Letters, Applied Physics Letters and a recent A.C.S. Symposium Series 56 monograph, "State to State Chemistry", Dr. Harris will be on sabbatical leave at the University of Chicago during the first half of 1978-79.

Professor M.T. Jones, Associate Dean of the College of Arts and Sciences will serve as acting, Dean of A & S during the coming year. Dr. Jones is also Chairman of the St. Louis Section of the American Chemical Society. Dr. Jones has reported on his continuing ESR studies of anion radicals and ion-pairing effects in invited lectures at the Argonne National Laboratory and Illinois State University and in talks at the Midwest ACS meeting and the National ACS meeting at Anaheim.

Professor D.W. Larsen was promoted last Fall to "Professor of Chemistry". Dr. Larsen's continuing pulsed -NMR studies of low frequency motions in the solid state have been reported in papers delivered at the Midwest A.C.S. meeting and the National ACS meeting in Chicago. Dr. Larsen will be on sabbatical leave at the University of Kent in Canterbury during the 1978-1979 year.

Professor J.A. Miller is chairman of the Midwest Junto of the History of Science Society and has presented invited seminars on "The French Revolution and the Chemical Revolution" at Western Illinois University and Southeast Missouri State University. Dr. Miller was appointed to the steering and advisory committees of the Missouri Governor's Conference on Library and Information Science. Dr. Miller will be on sabbatical leave from UMSL for the first half of 1978-79.

Professor R.W. Murray, chairman of the Chemistry Department, delivered the January UMSL Commencement address. Dr. Murray has given talks on ozone, air pollution and aging to a number of St. Louis area groups and on the KWMU radio program, "Creative Aging". Dr. Murray's research in oxidation chemistry has been reported in seminars which he presented at Monmouth College, Vanderbilt University, and the University of Missouri-Rolla, in his invited talk at the joint ACS/CIC Symposium on Ozonides and Peroxides, Montreal, and in other papers presented at the National ACS meeting in Anaheim and at the Missouri Academy of Sciences.

Professor R.E. Penn has been promoted to "Associate Professor of Chemistry" with tenure. Dr. Penn's microwave studies of hydrogen and hydride-bridge bonding and of reactive molecules have been reported in seminars presented at UMSL and the St. Louis section of the Society for Applied Spectroscopy, in articles published in the Journal of Chemical Physics, the Journal of Molecular Spectroscopy and the Journal of the American Chemical Society, and in papers presented at the National ACS meetings at Anaheim and Chicago, the Austin Symposium on Gas Phase Molecular Structure and the 33rd Symposium on Molecular Spectroscopy. Dr. Penn will be on sabbatical leave at the University of California at Santa Barbara during 1978-79.

Professor J.P. Riehl has been awarded a \$10,000 ACS/PRF grant for the study of "Polarized Luminescence as a Probe of Macromolecular Structure" and \$4,600 Research Corporation Cottrell grant for "Theoretical Studies of Time-Resolved Polarized Emission Spectroscopy". Dr. Riehl's current studies of polarized luminescence have been reported in a seminar at Washington University, an invited talk at the "Minisymposium on Optical Activity" SIU-Edwardsville, a paper delivered at the 33rd Symposium on Molecular Spectroscopy, Columbus Ohio, and in articles published in the Journal of Chemical Physics and Chemical Reviews.

Professor R.E.K. Winter presented the seminar "Germacrodienes. Biosynthetic Intermediates and Synthetic Challenges" at Northeast Missouri State University and attended the Midwest ACS meeting in Rolla.