CHEMISTRY Distillations

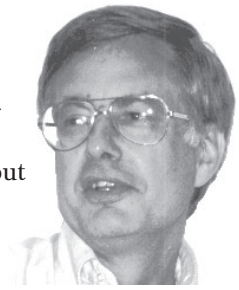
THE NEWSLETTER OF THE DEPARTMENT OF CHEMISTRY
COLLEGE OF WILLIAM AND MARY

WINTER 1996–'97
WWW at http://www.chem.wm.edu/

Greetings to all Chemistry Department alumni and friends. This is the annual edition of *Chemistry Distillations* which is intended to bring you up to date on our activities and to encourage you to correspond with us. It has been an exciting year with significant awards won by several faculty members and a student. We had our largest graduating class in history (which for William and Mary is saying something). Also, our curriculum is healthy and continues to undergo some modifications. This year, our department is due for a periodic concentration assessment, the last one being done in 1989.

This newsletter is an important way for us to keep in touch with our graduates and friends. It is also a way for us to learn from you how we can improve any aspect of our program. Please send any comments to Editor, Chemistry Distillations, Department of Chemistry, College of William and Mary, P.O. Box 8795, Williamsburg, VA 23187, or to rlkief@chem1.chem.wm.edu if you like to correspond by e-mail.

Remarks by the Chair



Dick Kiefer is editing this year's edition of *Chemistry Distillations* and Louise Menges is overseeing its layout and production, as she has so ably done with our earlier editions. We are very grateful to both for their considerable efforts–over and above their many other responsibilities–in putting this newsletter to press.

In this issue we highlight national awards won by Gary DeFotis (ACS Award for Research at an Undergraduate Institution) and Chris Abelt (Dreyfus Foundation's Teacher Scholar Award) and the selection of Gary Rice for one of three new William and Mary Professorships for Excellence in Teaching. We are very pleased that our colleagues have received well deserved recognition for their outatanding teaching and research.

Also in this *Distillations* are photographs from 1956, 1980 and 1996 that provide an interesting pictorial record showing the growth of the Chemistry faculty and staff over the last 40 years. Remarkably, Alfred Armstrong appears in all three. (In fact, Alfred would have been in similar photographs taken in the 1930s, if any were taken.)

Most importantly, this issue tells about our students. Last year's graduating class had more chemistry majors than ever before. More than a third of them did senior Honors research projects–a record number for the department and more than any single William and Mary department has ever had in one year. These are measures of quantity. We are also very proud of the quality of our students. For the fourth consecutive year (!!!) the Botetourt Medal for highest academic achievement was awarded to a Chemistry concentrator–David Wilmouth, who graduated with 39 As and a single A–. Eleven of last year's 69 seniors were elected to Phi Beta Kappa and 9 were James Monroe Scholars.

This fall we welcomed our newest tenure-track faculty member, Robert Hinkle. Rob taught the second term of organic chemistry for chem concentrators (Chem 207) in the fall. The College found research space for Rob in our already overcrowded building by converting Room 219 (at various times a conference room, a computer lab and an instrument room) to a very nice laboratory. The one-room renovation, which included a new air-handling unit for that room, cost in excess of $200,000. Labs don't come cheap!

Trevor Hill, who "retired" several years ago, returned again this fall as a visiting faculty to teach lab sections in General Chem and Organic. At the end of the term he and Shirley headed southwest in an enormous RV. We last heard from him in January from Texas. It should come as no suprise to those who remember Trevor that he had no idea which direction they would be going next. In the absence of its author, our "Old Rogers Recollections" feature will be missing from this year's newsletter.

Long-time (63 years) faculty member Alfred Armstrong sticks close to home these days. A number of individuals who contributed to the Armstrong Fund this past year included reminiscences of Alfred. He read them with a chuckle, sometimes finding it necessary to "correct" the story.

Continued on next page

As you can read throughout this newsletter, your W&M Chemistry Department is doing well. We hope you share our pride in the good things that have been happening here. We are always delighted to hear from our former students. Please drop us a note, send e-mail or stop by if you are in the neighborhood.

Bob Orwoll

Departmental Doings

Current Faculty

Chris Abelt, organic
cjabel@chem1.chem.wm.edu

Debbie Bebout, biochemistry
dcbebo@chem1.chem.wm.edu

Randy Coleman, biochemistry
Dir., Freshman/Sophmore Advising
racole@chem1.chem.wm.edu

Eric Dawnkaski, physical
ejdawn@chem1.chem.wm.edu

Gary DeFotis, physical
Garrett–Robb–Guy Professor
gcdefo@chem1.chem.wm.edu

Rob Hinkle, organic
rjhink@chem1.chem.wm.edu

Dick Kiefer, polymer/radiochemistry
rlkief@chem1.chem.wm.edu

Steve Knudson, physical
skknud@chem1.chem.wm.edu

Dave Kranbuehl, physical
dekran@chem1.chem.wm.edu

Kathleen Morgan, organic
kmmorg@chem1.chem.wm.edu

Bob Orwoll, physical
raorwo@chem1.chem.wm.edu

Bob Pike, inorganic
rdpike@chem1.chem.wm.edu

Ted Putnam, department administrator
tdputn@chem1.chem.wm.edu

Gary Rice, analytical
gwrice@chem1.chem.wm.edu

Barbara Siles, analytical
basile@chem1.chem.wm.edu

Bill Starnes, polymer
Gottwald Professor
se@chem1.chem.wm.edu

Dave Thompson, inorganic
Chancellor Professor
dwthom@chem1.chem.wm.edu

Emeriti

Alfred Armstrong,1976; Ed Katz,1979;
TrevorHill,1992(adjunct)
tbhill@chem1.chem.wm.edu;
Cirila Djordjevic,1992

Faculty Changes

On leave for 1996–1997:

Dave Kranbuehl (Research Leave) Spring 1997

Part-time faculty for 1996–1997:

Trevor Hill (Emeritus) Fall 1996

Welcome!

We welcome Professor Robert Hinkle to the Department. Rob joined us in the fall of 1996 as an Assistant Professor. He received a B.S. in Chemistry from Bowdoin College in Brunswick Maine, and then earned a Ph.D. in Organic Chemistry from the University of Utah with Peter Stang. Before coming to William and Mary, he was a postdoctoral fellow at the University of California at Irvine with Larry Overman. His research interests are the synthesis and reactivity of hypervalent iodine(III) compounds, and organotransition metal catalyzed reactions.

Bon Yoyage!

Melissa Ravenscroft leaves the Department after a year as Visiting Assistant Professor. She has accepted a postdoctoral position with Science Applications International Corporation in Rockville, Maryland.

Curriculum

The Chemistry Department has recently had two more ACS certified degree tracks approved by the ACS Committee on Professional Training. Tracks in biochemistry and in chemical physics join an already existing polymer track as ways for a student to earn an ACS certified degree. Of course, the regular ACS certified degree track which we have had for decades is still available.

A review of our masters degree program is almost complete. The internal evaluating committee submitted a very positive report to the Committee on Graduate Studies which has not yet taken any final action. While we are heartened by the positive tone of the evaluation report, the department's masters program remains on a probationary status pending further action.

The Chemistry Department's National Ranking

The January 20, 1997 issue of *Chemical and Engineering News* gives the figures for chemistry graduates in 1995. For some reason, the American Chemical Society is a year behind. Anyway, our 60 chemistry graduates in 1995 rank us 17th in the country, between Cornell and Florida State. However, in ACS-certified degrees, we rank 5th, tied with the University of Texas at Austin with 39, one more than Harvard! For 1996, we will probably be higher since we graduated 63 students with ACS-certified degrees. Based on 1995 figures, we would be second.

These figures are a tribute to the dedication, hard work, and enthusiasm of the Chemistry faculty, helped in no small part by the opportunity for students to engage in undergraduate research.

Rogers Hall

Our elation in last year's *Chemistry Distillations* at finding the expansion and renovation of Rogers Hall in the Governor's budget was short-lived as the realities of the budget process emerged. In the final budget approved by the Legislature, Rogers Hall was not there. The number one priority of the College for building renovation/expansion was and still is Swem Library. The second priority is the renovation/expansion of the science buildings, Rogers, Millington, and Small. So far, only planning money for Swem Library has been allocated. Sadly, it will probably be several years until the College can even think about its second priority. In the meantime, we have been able to renovate several rooms for faculty research laboratories, so we can still function in a reasonable manner.

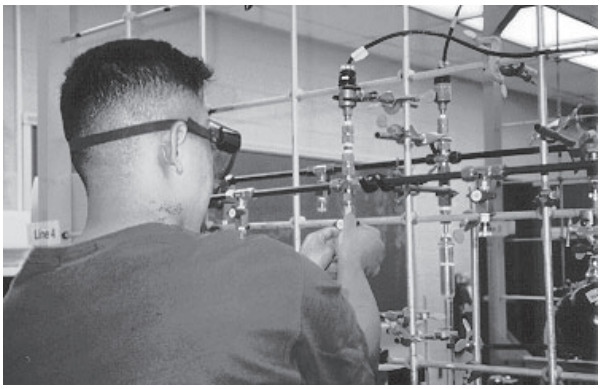
We're on the Web

The Chemistry Department has a page on the World Wide Web as noted in the last issue. You can reach us at **http://www.chem.wm.edu/** which is now the preferred address. We are still looking to make it interactive, but in the meantime, join us there to find out what is new and exciting in the Department.

Alfred Armstrong Fund

As we stated in the last issue of *Chemistry Distillations*, the Chemistry Department has created the Alfred Armstrong Fund to honor Professor Armstrong's 68 year association with the College and the Chemistry Department. Money from the Fund will be used for the purchase and maintenance of instrumentation in our laboratories, and for other important purposes such as summer research scholarships for undergraduate chemistry students, travel by students to conferences to present papers, computer software, and occasional distinguished lectureships. The need in all of these areas is great. Instrumentation grows more diverse, more sophisticated, and more expensive, while our budget gets tighter and our enrollments grow.

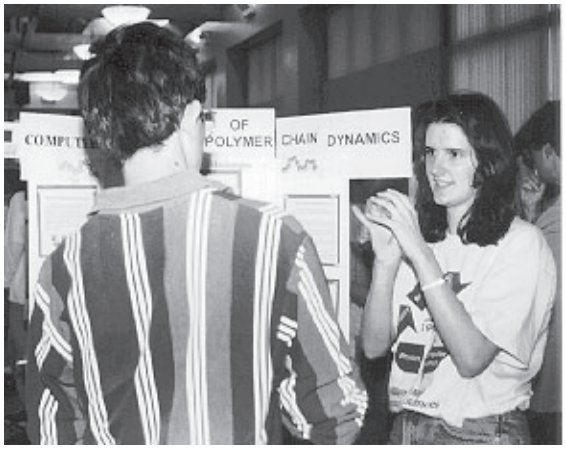
Many Chemistry alumni generously support the College with gifts to the William and Mary Annual Fund. The Development Office advises us that donors may write a single check supporting the William and Mary Annual Fund and the Alfred Armstrong Fund with a designation of how the gift should be allocated. Checks should be made out to the College of William and Mary and sent to Office of Development, College of William and Mary, Williamsburg, VA 23187.



Senior Yong Chong conducts an experiment on one of 4 new metal (unbreakable!) vacuum lines in the physical chemistry lab, which were designed and assembled by Professor Dawnkaski. The employer of a chemistry alumnus donated the fittings and valves for these lines last year.

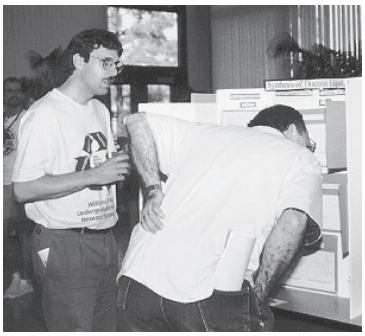
Undergraduate Research Symposium

The 3rd Annual William and Mary Undergraduate Sciences Research Symposium was held on September 13, 1996, in the new University Center. Students from the departments of biology, chemistry, computer science, geology, mathematics, and physics presented their research either as a talk or a poster. Sixteen talks were presented in concurrent sessions of Chemical Sciences, Life Sciences, and Physical Sciences. The talks were followed by the presentation of 66 research posters. As in the first 2 symposia, the Chemistry Department had the largest number of student participants. Of the 82 presentations, half were done by chemistry students (5 talks and 36 posters). This a reflection of the continuing strength of the Department in undergraduate research.



Nicole Haralampus discusses her research with a Symposium visitor.

Once again, Professor Debbie Bebout deserves accolades for doing a superb job of organizing and running this year's Symposium. It was supported by an award from the Merk Foundation administered by the American Association for the Advancement of Science and supplemented by funds from the DuPont Corporation and the Charles Center at William and Mary.



Professors Pike and Knudson take a close look at a poster.

Faculty Awards

Gary DeFotis Receives the ACS Award for Research at an Undergraduate Institution

Gary DeFotis, Garrett-Robb-Guy Professor of Chemistry, is the 1997 recipient of the American Chemical Society's prestigious and highly competitive Award for Research at an Undergraduate Institution. The award, sponsored by the Research Corporation, is given to one chemistry faculty member in the United States or Canada "whose research in an undergraduate setting has achieved wide recognition and contributed significantly to chemistry and to the professional development of undergraduate students." The award, consisting of a $5000 prize for Professor DeFotis, and a $4000 grant to the College, was announced in the January 6, 1997, issue of *Chemical and Engineering News.*

Gary has conducted research in several areas at the frontiers of experimental magnetism for nearly three decades. Along with undergraduate research students, he has studied such areas as pentacoordinate iron materials and their critical behavior; quasi two-dimensional magnets; mixed magnetic materials, including spin glasses; and the important new magnetic series $MCl_2 \cdot H_2O$. Several of these materials have exhibited unique magnetic behavior and represent the first examples of magnetic systems of their type. His research has been funded by 20 fellowships and grants totaling more than $700,000 from sources such as the National Science Foundation and the Petroleum Research Fund. He was also awarded a grant from the Camille and Henry Dreyfus Foundation enabling a teaching-research fellow to work with him at the College. This was the first such award to a faculty member at a public institution.

During his career, 58 undergraduate students have done or are doing research with Gary. Of these, 36 have gone on to graduate school. Of his 47 publications, 35 include undergraduate students as coauthors. Many of these publications represent work on exceptionally large-scale projects. He has

also given more than 80 contributed and invited lectures.

One of Gary's nominators commented that "DeFotis' outstanding research, achieved through an extraordinary level of involvement at all stages by undergraduate students, richly merits for him" the ACS award.

The Chemistry Department is proud to congratulate Gary DeFotis on his very significant achievement.

Chris Abelt Chosen Henry Dreyfus Teacher-Scholar

The Camille and Henry Dreyfus Foundation has announced that Christopher Abelt will receive one of five nationally competitive Henry Dreyfus Teacher-Scholar Awards for 1996. The Awards Program accepts nominations from institutions that grant a bachelor's or higher degree in chemistry, chemical engineering or biochemistry and seeks young scholars who have demonstrated leadership in encouraging undergraduates to become effective members of the chemical profession. The Award provides an unrestricted grant of $60,000 to the College to support Professor Abelt's research and teaching.

Chris Abelt joined the Chemistry faculty in January of 1986 and has demonstrated the highest levels of creativity, innovation, and energy continuously since his arrival. Typically, he has six or seven undergraduate students doing research in his laboratory during the academic year and several during the summer. His research has been funded with grants totaling over $470,000 from sources such as the National Science Foundation, the Petroleum Research Fund, and the Research Corporation. He has had a total of 20 student coauthors on his 25 publications.

Chris is a valued department citizen who contributes more than his share to the Chemistry Department's success in educating undergraduates. He was the principal author several years ago of two successful grant proposals which enabled the Department to purchase an FT-NMR. The grants from the NSF and the Keck Foundation totaled $175,000. In addition, he has assumed principal responsibility for the maintenance and repairs of the instrument. In spite of several major malfunctions, only one service call has been necessary.

Chris Abelt's reputation beyond the campus has been steadily growing. He brought the 34th National Organic Symposium to William and Mary in 1995 and handled the organizational details. The conference, which was attended by 1200 chemists, was a great success.

The Chemistry Department proudly salutes Chris Abelt for a well-deserved award.

Gary Rice Chosen for a Chair for Excellence in Teaching

In the fall of 1995, the College announced a program to recognize outstanding teaching, and began the process of selecting three tenured faculty members to be designated the first University Professors for Excellence in Teaching. The individuals were to be appointed to three-year nonrenewable terms as teaching chairs.

According to the Provost, the pool of applicants was outstanding and the selection process was rigorous. A total of 20 dossiers were submitted from among the 43 faculty members nominated. At the Board of Visitors meeting in April of 1996, Gary Rice, Associate Professor of Chemistry was chosen for a Chair for Excellence in Teaching.

Gary came to the Department in 1984 and immediately demonstrated his commitment to teaching. He set about designing the curriculum and experiments for Instrumental Analysis which reflect the applications and instrumentation chemists will encounter in their work and in graduate studies. He has published three articles in the *Journal of Chemical Education* that are used in the laboratory manual he has authored for the course.

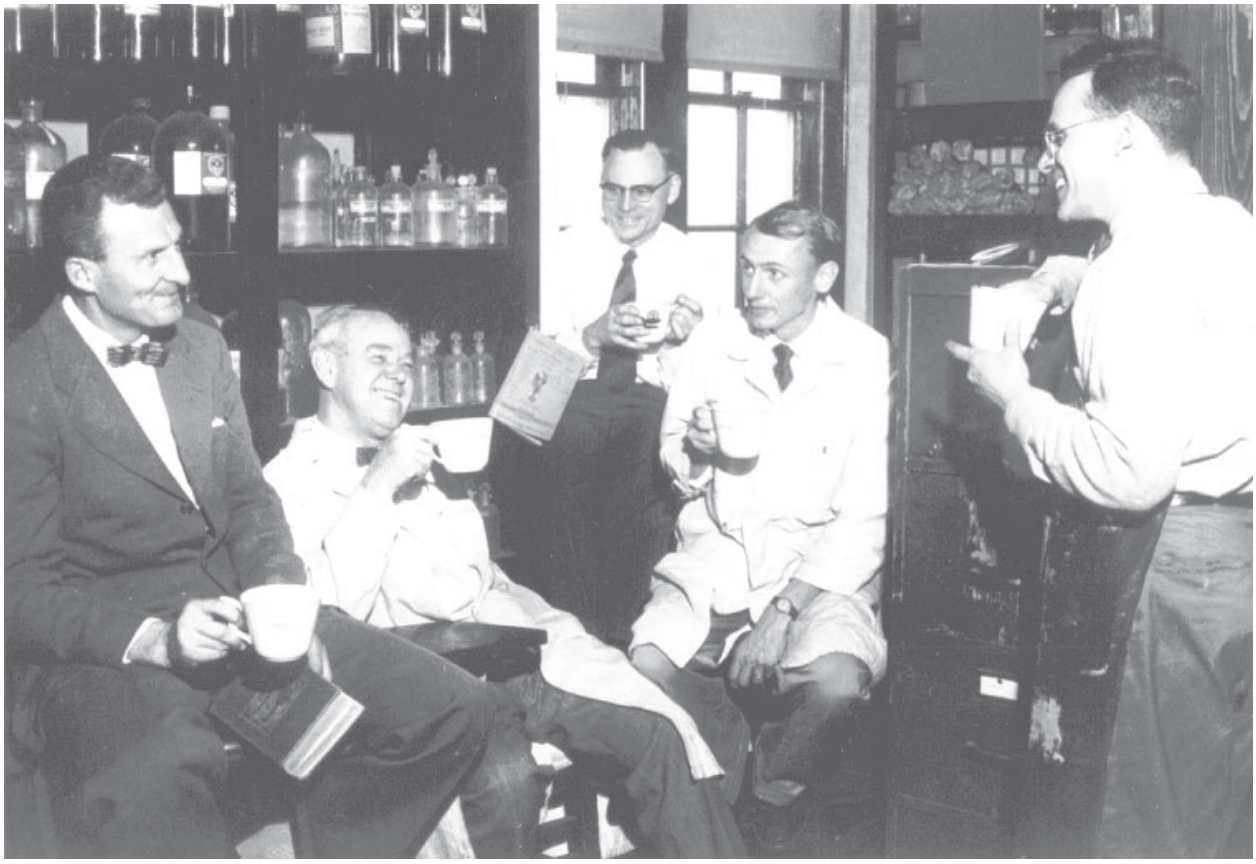
Continued on next page

In 1994, Gary was named Director of Undergraduate Studies for the Chemistry Department. In this capacity he coordinates our summer research program, coordinates the concentration writing course "Introduction to Chemical Research", and coordinates undergraduate research during the academic year. He has also written a document entitled "A Handbook for Chemistry Majors and Guide for a Career in Chemistry" which answers many questions about the Department, the concentration, and a career after graduation.

The Chemistry Department congratulates Gary Rice for this award based on his superb teaching.

A Pictorial History of the Department

The following three pictures show the changes in the Department over four decades. Anybody reading this newsletter should recognize someone from among the three pictures. If anyone has other pictures from the department that are somewhat historic, we would appreciate your sharing a copy with us for publication in subsequent issues.



The Department in 1956

Above is a photograph taken in 1956, as the faculty enjoy tea in the chemistry storeroom in Old Rogers. From the left are George Sands, physical, 1948–1956 (B.S. W&M, 1939); Willam Guy, physical, department head, 1926–1968; Alfred Armstrong, analytical, 1933–1995 (B.S. W&M 1932); Al Lutz, organic, 1953–1956; Ed Katz, lecturer, 1940–1980 (B.S. W&M 1936).

Here, faculty and staff gather in the P-Chem lab for a May 1980 photo. Back row, left to right: Alfred Armstrong, analytical (emeritus, adjunct); Eric Herbst, physical; Bob Orwoll, physical; Dick Kiefer, radiochemistry; John Binks, visiting from U. of Aberdeen, Scotland; S.Y. Tyree, inorganic; Steve Knudson, physical. Middle row, from left: Cirila Djordjevic, inorganic; Randy Coleman, organic; Betty Chess, department secretary; Ed Katz, instructor; Mel Schiavelli, organic (chair). Seated, from left: Dave Kranbuehl, physical; Louise Menges, lab mechanic; Madelyn Miller, lab mechanic; Trevor Hill, organic.

Missing from this photo is Dave Thompson, inorganic, who had exchanged positions for the year with John Binks of Aberdeen.

The Department in 1980

The Department in 1996

Above, a Spring 1996 shot of our current faculty and staff in the Chemistry Library. Back row, from left: Gary DeFotis, physical; Eric Dawnkaski, physical; Ted Putnam, department administrator; Dick Kiefer, radiochemistry; Bob Pike, inorganic; Bill Starnes, organic/polymer; Dave Kranbuehl, physical/polymer. Middle row, from left: Kathleen Morgan, organic; Sarah Dodson, fiscal technician; Louise Menges, lab specialist; Cirila Djordjevic, inorganic (emerita); Der-Hong Shieh, lab specialist; Debbie Bebout, biochemistry. Front row, from left: Peggy Greene, secretary; Lynda Stitzel, lab specialist; Alfred Armstrong, analytical (emeritus); Barbara Siles, analytical; Bob Orwoll, physical/polymer (chair).

Missing from this photo are Chris Abelt, organic; Randy Coleman, organic; Shirley Elder, secretary; Trevor Hill, organic (emeritus, adjunct); Steve Knudson, physical; Gary Rice, analytical; Dave Thompson, inorganic.

Student News

The Record-Breaking Class of 1996

The Class of 1996 set an all time record for the most number of Chemistry graduates in the long history of the College. A total of 69 young women and men earned the B.S. degree in Chemistry. Of these, 63 earned ACS certified degrees. More than half of these (39) are pursuing graduate work and 6 are in medical school. Eleven of these students were inducted into Phi Beta Kappa.

As noted below, another record was set when 25 of the members of this class graduated with honors based on a senior research project. In addition, 9 members of this class were James Monroe Scholars. These are students designated "the best of the best" upon entrance to the College. Monroe Scholars comprise about 5 to 10 percent of each entering class.

A Record Summer Too

The summer of 1996 was another record setting time as 46 undergraduate students stayed in Williamsburg to work on a research project for 10 weeks. Each student received a stipend of $2100 and free housing in a College dormitory. Support for this program comes from external research grants to faculty members, corporate grants and gifts to the Department, and gifts from alumni and friends to the Department. Undergraduate research is at the core of our Chemistry curriculum. The hard work of the faculty members and the generosity of corporations and individuals has enabled our summer research program to prosper.

The Botetourt Medal, a Chemistry Tradition

The Lord Botetourt Medal is presented at graduation to the student with the highest academic achievement during his or her career at the College. For the fourth year in a row, a Chemistry concentrator was the recipient of this award! At the May 1996 graduation exercises, David Wilmouth was presented with the medal. Preceding him were Vicki Healy in 1995, Deborah Bacon in 1994, and Frank Probst in 1993. Congratulations to all of them!

Chemistry Department Awards

At the departmental ceremony where the diplomas are presented, the Chemistry Department is privileged to present a number of awards to its top students. The following students received awards at the May 1996 ceremony:

David Ehmann, American Chemical Society Distinguished Achievement in Chemistry Award

David Wilmouth, William G. Guy Prize in Chemistry

Ivana Verona, American Institute of Chemists Award

Matt Wilkins, Alumni Undergraduate Research Award

George Coker, Hypercube Award

Chris Bibeau and Jon Trinidad, Merck Index Award

Phi Beta Kappa Awards

Eleven senior concentrators in the Class of 1996 were inducted into the Alpha Chapter of Phi Beta Kappa.


Chris Bibeau


Emily Buehler


George Coker


Chris Dyer


David Ehmann


Courtney Lucado


Ivana Verona


Matt Wilkins


David Wilmouth


Dennis Wixted


Christine Yeamans

Chemistry Honors

A record number (25) of seniors in the class of 1996 did honors research. This requires writing a substantial senior thesis and defending it before a faculty committee.

Emily Ashmore, Molecular Motion of Supercooled Organic Liquids in Confined Pore Space

Chris Bibeau, The Regioselective Derivatization of β–Cyclodextrin with 9,10–Dicyano–2–halomethylanthracenes

Britta Bierwagen, Application of Supercritical Fluid Extraction Optimization for the Analysis of Polychlorinated Terphenyls in Environmental Samples

Emily Buehler, An Analysis of Kinetic Energy in the Hydrogen Molecule Ion

Stuart Chaffee, Synthesis and Characterization of $[(\eta^4\text{–diene})Mn(CO)_4]^+$ Complexes

George Coker, A study of the Spin Glass Properties of $Co_{1-x}Mn_xCl_2 \cdot H_2O$

Chris Dyer, Catalytic Preferences of Peptidylglycine α–Amidating Monoxygenase: a Chemical, Statistical and Evolutionary Approach

Dave Ehmann, Investigation of Mercury Ligand Complexes by NMR

Jim Gutheil, Kinetics of Arene Displacement from the Dibenzofuran,Dibenzothiophene, Xanthene and Carbazole Complexes of $Mn(CO)_3^+$

Anne Harwell, The Synthesis of 9,10–Dicyanoanthracene–2,3–dicarboxylic Acid

Geoff Hird, Synthesis and Characterization of Zirconium β–Diketonate Complexes for Catalyzing the Epoxidation of Olefins

Clay Kellam, Continuous online *in situ* Dielectric Monitoring of Batch Epoxy/Acrylic and Polyester Synthesis

Courtney Lucado, Synthesis of 9,10–Dicyanoanthracene–2–carboxylic Acid

Wendy Newby, Characteristics of Polymeric Degradation: Nylon–11 and PVDF

Charles O'Brien, Flame Retardance and Smoke Suppression of PVC [Poly(vinyl chloride)] using Transition Metal Complexes

Constantine Scordalakes, The Effects of Confining Molecular Dimension Glass Pores on the Dielectric Relaxation Properties of Super–cooled Organic Solutions

Kim Smeds, A Study of the Effects of Metal Acetates and Copper Compounds on the Degradation of Poly(methyl methacrylate)

Todd Thornton, Enhancing the Dimensional Stability of Fluorinated Polyimide Films via *in situ* Doping of the Tris(acetylacetanato)lanthanum(III) Complex

Jonathan Trinidad, The Purification of Products from the Paternó-Büchi Photoreaction Between Alkenylboronate Esters and Aromatic Carbonyl Compounds

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Student News

Ivana Verona, Regioselectivity in the Nucleophilic Functionalization of Dibenzofuran, Dibenzothiophene and Xanthene Complexes of $[Mn(CO)_3]^+$

Josh Wallach, Mechanism of PVC Thermal Dehydrochlorination

Rachel Ward, Equation of State Measurements: Thermal Pressure Coefficients of Model Imide Compounds

Matt Wilkens, The Magnetic Properties of $Co_{1-x}Ni_xCl_2 \cdot 2H_2O$ and the Preparation of $Fe_{1-x}As_x[Se_{2(1-x)}S_{2x}CN(C_2H_5)_2]_2Cl$

David Wilmouth, Examination of Polymeric Materials for Radical Formation Induced by Atomic Oxygen, Ultraviolet Radiation and Other Factors

Cathy Wright, Investigation of Potential Sources and Mechanism–based Inhibitors of Peptidylglycine α–Amidating Monooxygenase

1996 Chemistry Masters' Candidates and Their Destinations

Michael Amendola is a chemist at Merck, Sharp and Dohme;

Sharon Fitzhenery went to Hoeschst Celanese as a chemist;

Derek Jackson is a chemist in Chapel Hill;

Peter Kourtesis has entered the Ph.D. program in chemistry at U. of Colorado;

Ian Nieves has entered the Ph.D. program in chemistry at UC Irvine;

Beth Ogura is a chemist at Gryphon Industries;

John Yang has entered the Ph.D. program in chemistry at UNC Chapel Hill.

Chemistry Class of 1996

Drew Allen	Jason Macko
Michelle Araujo	Cynthia Martin
Emily Ashmore	Michael Miller
Christopher Battles	John Minnich
Andrew Beveridge	Wendy Newby
Christopher Bibeau[M]	Ashley Newhouse
Britta Bierwagen[M]	John Northrup
Kevin Bocek	Charles O'Brien
Nathan Buchanan	Rachel Oberg
Emily Buehler[M]	Amy Popelish[M]
Stuart Chaffee	Tiffany Price
George Coker	Holly Rickman
Leslie Culliton	Heidi Riviere
Robert David	David Sargent
Hillary deLeeuw	Constantine Scordalakes
Christopher Dyer	Kimberly Smeds
David Ehmann[M]	Shannon Smith
Brian Eigel	David Soles
Jeffrey Fiscus	David Style
Rachel Freer	Jonathan Tan
Joanna Goodey	Todd Thornton
Charles Gray	Erel Topuz
James Gutheil[M]	Hoang Vi Tran
Anne Harwell	Jonathan Trinidad[M]
Geoffrey Hird	Ivana Verona
Eric Just	Brian TWalker
Edwin Kellam[M]	Joshua Wallach
Catherine King	Rachel Ward
John Kratzke	Matthew Wilkens[M]
Antigone Kriss	David Wilmouth
Andrew Larsen	Dennis Wixted
Shannon Lee	Rachel Works
Christine Little	Catherine Wright
Courtney Lucado	Christine Yeamans

[M] Monroe Scholars

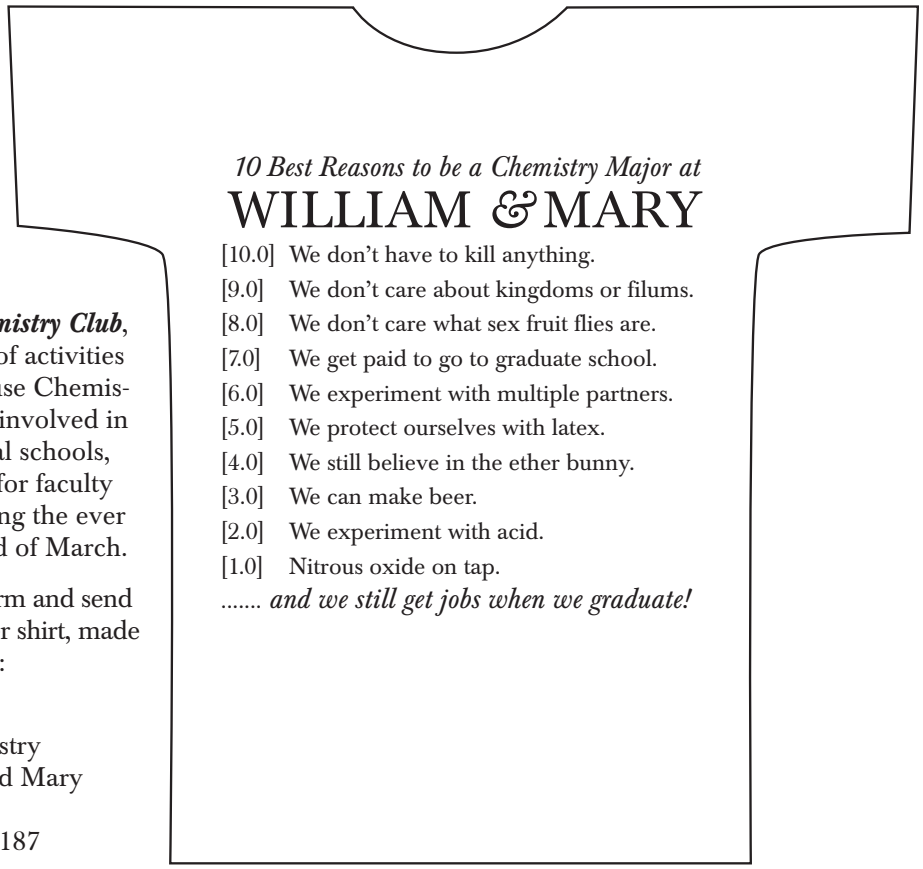
CHEM ALUMS!

Here's a great way to support current Chemistry students, AND recall those glory days at W&M... For only $12, you can purchase a T-shirt featuring the "***Top Ten***" reasons to be a Chemistry major. All T-shirts feature the white design on a navy blue background.

Proceeds will support the ***Chemistry Club***, which is involved in a variety of activities designed to enlighten and amuse Chemistry students. We are currently involved in outreach science demos at local schools, are planning a year end party for faculty and students, and will be hosting the ever popular ***Magic Show*** at the end of March.

Interested? Fill out this order form and send it, along with a check for $12 per shirt, made payable to "Chemistry Club" to:

Dr. Kathleen Morgan
Department of Chemistry
College of William and Mary
PO Box 8795
Williamsburg, VA 23187



Order forms MUST be received by March 31, 1997!

Name _____

Address _____

_____

Phone _____

Size(s) (L or XL) _____

Chemists Have Many Talents!

Shown here is a rather poor reproduction of a large oil painting which has graced a wall in our Conference Room since last summer. It is the creation of Emily Buehler, Class of 1996, who took a Fine Arts minor, and executed this painting at the request of the Department. Emily entered the Ph.D. program in chemistry at UNC Chapel Hill last fall. We think this painting is an eloquent expression of her love of chemistry and of art.

(And Emily is not the first chemistry concentrator to leave us an artistic reminder–on another wall hangs a plaque with a traditional Chinese dragon motif, by Thomas Wong, a 1983 graduate.)

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