

# CHEMISTRY DISTILLATIONS

The Newsletter of the Department of Chemistry, College of William and Mary

Fall 2003

[www.chem.wm.edu](http://www.chem.wm.edu)

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Bob Pike, Editor



## Remarks by the Chair

**THIS YEAR** I've decided to keep my letter short and possibly sweet. What brought me to this conclusion was a recent meeting I had with a prospective student and her mother, an hour and one half into which they interrupted to inform me that they really needed to leave to continue their road trip to other schools. I realized at that point that when it comes to describing our program, the bulk of my time is spent talking about the accomplishments of our alumni, something that I am extremely proud of and would spend hours doing so if allowed. Anything but short and sweet!

The past year has not been quite as tumultuous as the previous year. The state completed the bond appropriations necessary for the addition and renovation to Rogers Hall, although what direction the College is taking on the badly needed enhancements of the science buildings relative to constructing a large dormitory complex on Barksdale Field is unclear. Hopefully, student comforts and amenities will not take precedent over their safety and academic surroundings. My only hope is that our younger faculty and students can maintain their patience for the remaining decade, which seems to be the current time frame for the completion of the various science building projects. In the mean time, we will have to continue to endure the overcrowded research labs, hoods, and benches; the poor ventilation (you always know when organic labs are being held); the leaking plumbing and steam lines; the inefficient heating and cooling (remember wearing sweatshirts in the summer?); the constant need to upgrade electrical connections; and those little things that can irritate you on a daily basis. Need I say more?

We continue to make some head way on replacing obsolete and aging instrumentation, due in large part to the recognition of the administration of our critical needs. A new spectrofluorimeter was purchased this spring, and a new flame and graphite furnace atomic absorption spectrophotometer was installed this summer. What is truly amazing is that there are no basic differences in the principles of operation between the new instruments and our older models

that we struggle to keep running for an average of 13-15 years, but the features and level of productivity that one can achieve on the new systems are phenomenal. Four of the lower division GCs, and one lab of Spec 20s, as well, were replaced with modern digital instruments (believe it or not, Spec 20s are no longer made). Some of the costs associated with these replacements were offset by grants as well as the generous donations from our chemistry alumni to various chemistry private funds. An NSF proposal was recently submitted for the purchase of an X-ray crystallography system. We are optimistic that additional funding will be made available by the administration in the upcoming years to meet our most pressing needs.

This year marked the retirement of Dick Kiefer, an exceptionally dedicated teacher and member of this department since 1965. Oddly enough, Dick was the chair of the department (for the second time) when I came to William and Mary in 1984, and he had also endured a third term as chair when I succeeded him in 2001. Professor Kiefer was a true ambassador for the department and College, which included year long adventures at Aberdeen in Scotland and the University of Queensland in Australia. He continues to have numerous collaborative interactions with NASA-Langley where many students have been able to gain fruitful research experiences. His upper level course in radiochemistry has always been

popular, and that, too, will unfortunately be retired. Actually, I am hard pressed to say that Professor Kiefer has really retired, given the fact that he will continue to teach general chemistry and lab this fall and mentor research students through his current NASA grant.

We are pleased to have regained the services of Randy Coleman in the organic and biochemistry curriculums upon his resignation this spring as the Director of Academic Advising. Carey Bagdassarian was promoted to associate professor and also honored with the Thomas Jefferson Teaching Award at the Charter Day ceremonies in February. We are also pleased to welcome Steven Berry for the next two years as a Dreyfus postdoctoral associate from an award made to Debbie Bebout. Rob Hinkle received a Dreyfus Teacher-Scholar award in the fall as well.

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Our undergraduate research program hit an all time high this summer, with 56 chemistry majors participating in our ten week research program. Our faculty productivity and the inclusion of students recognized in publications and presentations continues to grow as well. A total of 34 and 40 undergraduates were listed as co-authors on 25 publications and 35 presentations, respectively, for the past calendar year. Faculty were awarded over \$700,000 in external grants and contracts. The number of graduating seniors hit a low point in 2002 (35 total), but that appears to be changing rapidly (45 in 2003). As a matter of fact, we have averaged close to 44 graduating majors per year over the past 20 years, which is a phenomenal statistic given the size of our institution. The ACS just released statistics for the past five years, and with the exception of one year, we ranked in the top 10 schools throughout the country for number of ACS certified majors that we graduate.

So I have reached the point where I realize that this has not been a short letter (surprise), that I am still complaining about one end of the academic spectrum while praising the other end (simply for our ability to survive), and ultimately realizing that if there were no problems then there would be no opportunities to find solutions. At the very least, I know that no one can ever take away the education, experience, and memories that we hope have proven to be a positive part of the four (or so) years of your life within the chemistry department. And by the way, if you're wondering why I appear to be squinting in the cover picture, it was taken with the sun in my eyes, and not a 70's flashback!

Cheers, *Gary Rice*

### From the Editor

Since I'm serving as editor of the Department newsletter this year, I thought I'd take advantage of my "bully pulpit." The latter term, in case you're unfamiliar with it, is a Teddy Roosevelt-ism describing the opportunity to speak in favor of something, without your opponents having the opportunity to rebut your arguments.

I recently read a biography of Teddy and found myself astounded by our 26<sup>th</sup> president's enthusiasm for the U.S.A., progress, the environment, all things cowboy, ornithology, world politics, classical and world literature (he spoke seven languages), himself, and (most of all) for life itself. Since our actions flow from our convictions, the natural result of such great enthusiasm is great accomplishment. And there are few better illustrations of this point than Roosevelt, who accomplished more in his lifetime than most others could in several lifetimes. He was an accomplished scholar, naturalist, politician and war hero, and by the time he was my age, 43, he was president.

During my eleven years in the Chemistry Department at the College, I would say that my accomplishments are pretty modest. (Reading history is a good way to maintain one's perspective!) Nevertheless, I too feel passionately about several things: notably how fortunate I am to do what I do for a living. I get paid to enjoy the thrill of life-long learning, the magic of scientific discovery, the joy of teaching the best young minds, and the vicarious pleasure of seeing my former students do great things in their own careers.

I'm not afraid to say it: Chemistry is cool! Bubbling reaction mixtures, great colors (transition metals do it best), beautiful crystals, spectroscopic detective work—there's no work that is as much sheer fun as chemistry. But even the wonders of chemistry would feel incomplete to me if I did not have the chance to share them with like-minded individuals. That's why my job is great. I get to share the delights of chemistry with W&M students, the best college students there are—period! Eat your heart out, Teddy.

*Bob Pike*

## Current Faculty

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**Chris Abelt**, organic  
*cjabel@wm.edu*

**Carey Bagdassarian**, biophysical  
*ckbagd@wm.edu*

**Debbie Bebout**, biochemistry  
*dcbebo@wm.edu*

**Randy Coleman**, organic, biochem  
*racole@wm.edu*

**Gary DeFotis**, physical  
Garrett-Robb-Guy Professor  
*gxdefo@wm.edu*

**Elizabeth Harbron**, organic  
*ejharb@wm.edu*

**Rob Hinkle**, organic  
*rjhink@wm.edu*

**Steve Knudson**, physical  
*skknud@wm.edu*

**Dave Kranbuehl**, physical, polymer  
*dekran@wm.edu*

**Lisa Landino**, biochemistry  
*lmland@wm.edu*

**Bob Orwoll**, physical, polymer  
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**Bob Pike**, inorganic  
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**J. C. Poutsma**, analytical  
*jcpout@wm.edu*

**Ted Putnam**, dept. administrator  
*tdputn@wm.edu*

**Gary Rice**, analytical, chair  
*gwrice@wm.edu*

**Bill Starnes**, polymer  
Gottwald Professor  
*whstar@wm.edu*

**Dave Thompson**, inorganic  
Chancellor Professor  
*dwthom@wm.edu*

### Emeriti

**Alfred Armstrong**, 1976

**Ed Katz**, 1980

**Cirila Djordjevic**, 1992

**Trevor Hill**, 1992  
*tbhill@wm.edu*

**Dick Kiefer**, 2003  
*rlkief@wm.edu*

## Faculty News

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### Transitions

#### Promotions

**Carey Bagdassarian** (Associate Professor)

#### Retirements

**Dick Kiefer** (See below)

**Trevor Hill** (stepping down from active teaching)

#### On leave for 2003–2004

**Chris Abelt** (Research Leave, Spring 2004)

**Carey Bagdassarian** (Research Leave)

#### Part-time faculty, 2003–2004

**Kathy Sturgeon** (Fall 2003)



#### Dick Kiefer Retires This Year...

Dick Kiefer retired from the College this May, after 38 years on our faculty. However, he remains very active in the life of the Department—so much so that a casual observer might question whether he is indeed retired. Dick just finished teaching General Chemistry in summer school, and this fall he is teaching it again to more than a hundred students. In addition, he has three undergraduates doing research in his laboratory. However, Dick would be quick to point out that we won't find this retiree in any committee meetings.

Dick has had a rich history at William and Mary. He arrived as an assistant professor in 1965 when the Department had only six teaching faculty. As the Department grew, he moved through the ranks becoming a full professor in 1979. The Department and College administration recognized and appreciated his administrative skills, evenhandedness, and vision. As a result he was asked to chair the Department on four different occasions. Each time, he accepted the responsibility. With his frequent moves in and out of the chairman's office, Dick sometimes referred to himself as the "Revolving Chair".

Over the years, several thousands of students learned General Chemistry from Dick and hundreds more enrolled in his Radiochemistry course. In fact, during his 38 years here, there were few years—if any—when his yearly teaching assignment did not include both General Chemistry and Radiochemistry.

Over the last 15 years Dick has been applying his expertise in nuclear chemistry (which goes back to his dissertation research at Berkeley and postdoctoral work at Brookhaven National Laboratory) to develop shielding against high-energy radiation to protect humans in space. Dick's research has been supported by NASA and, indeed, some of it is carried out at the nearby NASA-Langley Research Center. His students have found this extraterrestrial research to be....well, out of this world. Several years ago he and his students developed a method for making composite bricks prepared from Martian-like soil and polyethylene—referred to by the students as "Mars bars," notwithstanding the absence of chocolate.

Dick (with his wife Sharon) spent 1978-79 as a visiting lecturer at the University of Aberdeen in Scotland and 1993-94 as a visiting scientist at the University of Queensland in Australia. He and Sharon have enjoyed living in and exploring far-away places. In fact they have set foot on four of the seven continents. It would surprise no one here if, in his retirement, Dick should complete the set. Other retirement activities will certainly include his four grandchildren (who live in Wisconsin, Illinois, and Williamsburg) and birdwatching.

In his retirement, Dick joins the Chemistry retirees Cirila Djordjevic (Williamsburg), Trevor Hill (Williamsburg), Ed Katz (Blacksburg), and Alfred Armstrong (Williamsburg and 92 years old).



#### ...and Randy Coleman Returns to Full-time Teaching

##### Reflections on Advising

Fifteen years ago I was invited to serve on a committee charged by then-Provost Mel Schiavelli (a chemistry colleague and former chair of our department) to look at our undergraduate advising programs (freshman/sophomore, concentration, and pre-professional) and to make recommendations on how any or all of them could be improved. Little did I know then that my first steps were being taken into an administrative role for advising. The end result of that committee's work was a report to the Provost describing pre-professional and concentration advising as satisfactory-to-excellent and the freshman/sophomore advising as much less than satisfactory.



Subsequent to that report the associate Provost asked for my help in writing a funding request to the State Council on Higher Education for support of the freshman/sophomore advising program. Our proposal was accepted, with two years of funding worth \$150,000. This acceptance was important for multiple reasons, not the least of which was an endorsement to our administration that we were on the right track in trying to improve our program. The funds also included support for the establishment of new position, "Director of Freshman/Sophomore Advising". With funding in place, a call for applications for this position was made to the faculty. I applied, was accepted, and became the director of the new advising program. My administrative adventure had begun!

It was clear to me from the outset that several important changes had to be made in the advising program. Freshmen advisors had to be volunteers, so that only those faculty who were truly interested in working with the freshmen would participate. Mandatory meetings with advisors would become the rule for freshmen. Academic interests of the incoming freshmen would be paired to the academic interests of the faculty advisors. Some reward structure had to be in place for those faculty who volunteered, because service to the College has never been highly regarded on faculty evaluations. Using our grant money, I established a modest professional development fund for the advisors. The gesture was appreciated by the faculty, especially since there were very few strings attached to how the money could be spent. The end result was my ability to recruit over 120 advisors that first year, when the target goal written into the grant budget was 60 advisors. That was my first introduction to the campus-wide commitment our faculty have to our undergraduate program. It was refreshing to see the faculty step forward and agree to become advisors in a new and untested system!

During the spring of 1989 the first Freshman Questionnaire was developed. It was sent to freshmen in May. By the start of

the fall semester, we had the new students paired up with advisors having similar academic interests. In that first year our office began a commitment of strong support to the faculty advisors. We held workshops, large- and small-group meetings, and basically did whatever was necessary to make the program a success. We also began a program of summer pre-registration into a few courses for each new student to ensure that a student interested in a particular concentration would be enrolled into at least one course in that area. This system alleviated much of the stress associated with the old arena registrations that many of you alums had to endure when you were here.

OK, that was the start of it all for me in administrative advising. The program continued to grow in ways I never anticipated. We subsequently applied to the federal Department of Education for grant support and were fortunate to be one of eighteen funded proposals for a three-year grant which ultimately was worth over \$400,000. With this successful funding, our program burst onto the national scene as a noteworthy faculty advising model in a liberal arts setting. I suddenly began receiving requests to visit other schools to help them establish better advising programs. Those were heady and exciting times.

I quickly discovered, as I traveled around the country, how fortunate I was to be at William & Mary. It became very clear to me that the commitment our faculty have to the undergraduates in teaching, research, and advising truly makes this a very special institution. Other programs, especially at public institutions, were failing because of the relative lack of interest many faculty have toward undergraduates. How sad for the students.

In the past five years, the use of our campus computing network played an ever-increasing role in advising. Our initial effort at setting up an on-line advising structure for the faculty advisors was successful, except for the fact that our mainframe system was notoriously slow when it was most needed – at the start of the semester!

## Faculty Families

### Debbie's New Arrival



**Debbie Bebout proudly shows off her new daughter for the camera. Rebecca, born in July, joins brothers David and Daniel in the Bebout/Dawnkaski family.**

### J. C.'s Wedding



**Many of us were in attendance when J. C. Poutsma and Jennifer Radkiewicz were wed on Sept. 6. Jennifer is a chemistry professor at Old Dominion University. The couple met when J. C. was invited to give a seminar at ODU. Among the wedding guests was Liz Minor, '92 (also on ODU's chemistry faculty). Below, Liz visits with Dave Thompson at the reception.**



It was time for a new system. This led me to participate in efforts to bring a modern computing environment to the campus for all of the College's business, not just advising. What I have been working on these past few years is the implementation of a new client-server based computing environment for the College. This was a major effort that actually forced me to back out of teaching my beloved organic and biochemistry. With new computing hardware and software, we no longer experience the slow responses we had on the mainframe. The new system can run 24/7, so students can do business between midnight and 3:00 a.m., when they are apparently most active! How many of you alums reading this still are most active between midnight and 3:00 a.m.? I thought so.

This past year I stepped down as director of freshman/sophomore advising and returned to the chemistry department. I'm not quite full-time in the department, since the computing project still requires significant pieces of my time. But, I am back in the classroom and continue to work with our pre-meds and other health-career students. The excitement I derive from teaching and working with our students is wonderful to feel again. I have returned home, so to speak. I have found my roots, and love where I am.

I hope you have enjoyed reading this brief adventure. While I maintain a significant correspondence with many of you, I would love to hear from more of you. Drop me a line or send me an email to let me know how your professional lives are going. Have you found your roots?

## Bagdassarian Receives Thomas Jefferson Teaching Award

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Carey Bagdassarian is striving to make chemistry fun. As he puts it, "I would guess that I am not the most orthodox instructor. I do think that a lot of learning is best done in a playful environment. Creativity is nurtured best by playfulness." Clearly, Carey is onto something. The College has honored him with the 2003 Thomas Jefferson Teaching Award, the institution's highest honor for a young faculty member.



His approach to life seems almost casual. Walk into Carey's class, and you may see students drumming on their desks trying to sustain a rhythm. You may hear the lecture summarized in a Zen story. If the class is an "interlude"—they occur, he explains, every fourth or fifth session—the discussion will break free of the current assignment and embrace leading-edge science; "origin-of-life scenarios, rational drug design, protein motors, fun stuff," he explains.

Carey's teaching methods may be unorthodox, but they are not random. The drumming on the desks was an illustration: in its case, of the second law of thermodynamics which suggests that all systems tend toward disorder. "What I do is have the class play out drum rhythms on the desks. You can watch how it all, without any organizing principle, disassociates into chaos, but when you put back the organizing principle—that would be me, who knows the rhythm—it all focuses back into rhythm. You have music."

Explaining the point of such exercises, Carey says, "I talk a lot about literature, about books, about movies, whatever strikes my fancy. I try not to be myopic. I try to find things that have resonance, where everything is tied together, and where human thought—whether it's art or science—is all coming to the same story. They're all striving and longing for the same thing."

Recommendations of Carey for the Jefferson teaching award featured words such as enthusiasm, clarity, accessibility, encouragement, rigor and excitement as descriptors of his teaching ability. Carey is pleased with the praise. It affirms the passion he brings to teaching. This passion extends into his research as well: He recently earned the 2002 Phi Beta Kappa Faculty Award for the Advancement of Scholarship. On the side, the same passion has led him to embrace diverse roles, including as faculty adviser to the College's rock-climbing club and as a successful grant writer seeking to introduce children to the world of West African drumming.

Carey is spending the 2003-2004 academic year on a research leave at the Santa Fe Institute in New Mexico. The Institute is a research and education center devoted to pursuing emerging science and catalyzing collaborative, multidisciplinary projects. Carey is studying and developing research ideas connected with complexity theory.

Chemistry graduating senior James Cahoon was awarded the Thomas Jefferson Prize in Natural Philosophy at Charter Day (see page 9), making a clean-sweep of the Jefferson awards for Chemistry in 2003.

## New Dreyfus Fellow

The Department welcomes Camille and Henry Dreyfus Fellow Steven Berry. This prestigious two year teaching and research position is designed to attract talented recent Ph.D. recipients to faculty positions at predominantly undergraduate institutions. Steven completed his B.S. at the University of Minnesota Duluth. He conducted undergraduate research with Professor Larry Thompson, studying the emission spectroscopy and crystallography of new  $\beta$ -diketonate complexes of Eu(III) and the lanthanides. He recently received his Ph.D. from the Chemistry Department of the University of Illinois at Urbana Champaign. His graduate work with Professor Yi Lu involved the design and characterization of novel modified metalloproteins. Steven will be investigating heavy metals in toxicologically relevant ligand environments by NMR and X-ray crystallography with Camille and Henry Dreyfus Scholar Deborah Bebout. His teaching responsibilities will include laboratory courses across the curriculum as well as co-development of a new section of the biochemistry lecture course with Professor Bebout.



Having always lived in the Midwest, Steven has enjoyed exploring local historical sites since moving to Williamsburg in June. In his spare time (which will diminish greatly in February when he and his wife Jennifer expect their first child) Steven likes to swim, fish and engage in other outdoor activities.

## Selected Faculty Research Profiles

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### Chris Abelt

Recent projects in my laboratory have focused on organic molecular switches and sensors. The goal for former is to create second generation enzyme mimics. A first generation mimic has a binding site and a group that can catalyze reactions of bound substrates. A second generation mimic has these features plus an on/off switch. We have looked at indicators and dye molecules to form the basis of these switches. Hydrogen ion concentration would control the switching. We began by targeting azo compounds, then moved on to the phthaleins. Only the latter has shown any promise for switching.

We have also been studying molecular sensors. Specifically, we have been looking at naphthalene derivatives bearing dialkylamino and carbonyl groups. PRODAN (6-propionyl-2-dimethylaminonaphthalene) is a well-known sensor for micropolarity that is used in biochemistry and material science. In solution, PRODAN's fluorescence maximum varies depending on the polarity of the solvent. We are interested in determining the structural features that give rise to its sensitivity to environmental polarity. We have recently shown that free rotation of the dialkylamino group is not important to its sensing properties.



### Recent Publications

William E. Brenzovich Jr., Ronald J. T. Houk, Sienna M. A. Malubay, Joshua O. Miranda, Katherine M. Ross and Christopher J. Abelt, "The Synthesis and Properties of Some Carboxy-substituted Analogs of Butter Yellow," *Dyes and Pigments* **2002**, *52*, 101–114.

William E. Brenzovich, Jr., Misty D. Odell, Joana P. Soares and Christopher J. Abelt, "Structure and Properties of Some Cresolphthalein Derivatives," *Dyes and Pigments* **2003**, *59*, 251–261.

### Gary DeFotis

Gary DeFotis, Garrett-Robb-Guy Professor of Chemistry, studies magnetic materials in which there is reason to expect novel behavior of various kinds: low magnetic dimensionality, nonstandard critical behavior, spin glass and other nonequilibrium phenomena, mixed magnets and temperature-composition phase diagrams with unusual structure. The materials examined are transition metal compounds in which exchange interactions dominate the behavior at temperatures near the boiling point of liquid helium. Recently he received a fifth consecutive multi-year NSF grant in support of this work.

The materials that he has examined in recent years include those systems identified in the titles of the recent publications listed below. In each case a type of magnetic behavior which is distinctly out of the ordinary was uncovered, or certain particular properties of the system were studied in depth.



### Recent Publications

Gary C. DeFotis, Eric M. Just, Vincent J. Pugh, Gregory A. Coffey, Brian D. Hogg, Sharon R. Fitzhenry, Jennifer L. Marmarino, Daniel J. Krovich and Richard V. Chamberlain, "Magnetic Phase Diagram, Static Properties and Relaxation of the Insulating Spin Glass  $\text{Co}_{1-x}\text{Mn}_x(\text{SCN})_2 \cdot (\text{CH}_3\text{OH})_2$ " *Journal of Magnetic Materials* **1999**, *202*, 27–46.

Gary C. DeFotis, Andrew C. Beveridge, Matthew J. Wilkens, Zachary J. Fuller, Jonathan G. McMahon and Christina D. Wallo, "Insulating Ternary Magnetic  $\text{Co}_{1-x}\text{Mn}_y\text{Fe}_{x-y}\text{Cl}_2 \cdot 2\text{H}_2\text{O}$ " *Journal of Applied Physics* **2000**, *87*, 6540–6542.

Gary C. DeFotis, Matthew J. Wilkens, Andrew C. Beveridge, Amy A. Narducci, Michael H. Welch, Heather A. King, Jeffrey S. Bergman, Michael E. Cox and Robert B. Jeffers, "Composition Induced Lowering of Metamagnetic Critical Field and Static Magnetic Properties of  $\text{Co}_{1-x}\text{Ni}_x\text{Cl}_2 \cdot 2\text{H}_2\text{O}$ " *Physical Review* **2000**, *B 87*, 6421–6428.

J. Campo, J. Luzon, F. Palacio, Gary C. DeFotis, John J. Christophel and E. Ressouche, "Neutron Diffraction Study of the Structural Phase Transition in the Deuterated Molecular Ferromagnet  $\text{Fe}(\text{dte})_2\text{Cl}$ " *Applied Physics* **2002**, *A 74*, S923–S925.

Gary C. DeFotis, Michael L. Laccheo and H. Aruga Katori, "Critical Behavior in the Heat Capacity of  $\text{Fe}[\text{S}_2\text{CN}(\text{C}_2\text{H}_5)_2]_2\text{Cl}$ : Evidence for Chiral Universality" *Physical Review* **2002**, *B 65*, 094403, 5 pgs.

### Bill Starnes



Our research deals primarily with the mechanisms of the reactions of synthetic macromolecules. Its ultimate goal is to improve the functional properties of these very important materials. Much of our work is concerned with the world's second most abundant synthetic polymer, poly(vinyl chloride) (PVC).

Heat stabilizers must be incorporated into PVC articles sold commercially. We have identified a new class of additives for PVC, ester thiols, that are extraordinarily effective as stabilizers and conceivably can replace the best ones currently used, which contain toxic heavy metals. Our new stabilizers have been covered by several patent applications, and they are being evaluated for potential commercialization by an international consortium of eight industrial companies.

In other recent work, we have discovered that the thermal dehydrochlorination of PVC involves an unprecedented intermediate, i. e., an excited polyenyl cation diradical. Also, in a collaborative project with Professor Pike, we have found that certain copper complexes are remarkably good smoke suppressants for PVC and that they function, at least in part, by promoting reductive crosslinking.

### Recent Publications

William H. Starnes, Jr., B. Du and Vadim G. Zaikov, "Thermal Stabilization of PVC by 'Plasticizer Thiols'" *Journal of Vinyl and Additive Technology* **2001**, *7*, 250–253.

William H. Starnes, Jr., Yun M. Kang and Lynda B. Payne, "Reductive Dechlorination of a Cycloaliphatic Fire Retardant by Antimony Trioxide and Nylon 6,6: Implications for the Synergism of Antimony and Chlorine" *ACS Symposium Series* **2001**, *797*, 253–266.

William H. Starnes, Jr., "Structural and Mechanistic Aspects of the Thermal Degradation of Poly(vinyl chloride)" *Progress in Polymer Science* **2002**, *27*, 2133–2170.

William H. Starnes, Jr., Robert D. Pike, Jenine R. Cole, Alexander S. Doyal, Edward J. Kimlin, Jeffrey T. Lee, Philip J. Murray, Ronald A. Quinlan and Jing Zhang, "Cone Calorimetric Study of Copper-Promoted Smoke Suppression and Fire Retardance of Poly(vinyl chloride)" *Polymer Degradation and Stabilization* **2003**, *82*, 15–24.



## Recent Faculty Research Awards

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**Chris Abelt**, “Photoinduced Electron Transfer Reactions of Thiobenzoates” Petroleum Research Fund, American Chemical Society, \$50,000.

**Debbie Bebout**, “Extending the Reach of  $^{199}\text{Hg}$  NMR as a Metallobioprobe” Camille and Henry Dreyfus Scholar Fellow Program for Undergraduate Institutions, \$100,000.

**Debbie Bebout**, “Exploring the Metal Biochemistry of Hg(II) with Multidentate Mixed N,S-Donor Ligands by X-Ray Crystallography and NMR Spectroscopy” Petroleum Research Fund, American Chemical Society, \$50,000.

**Debbie Bebout**, “Foundations for Toxicological Studies: Probing Speciation and Structure of Cd(II), Hg(II) and Pb(II) with Multidentate Chelating Ligands” National Science Foundation, \$180,000.

**Rob Hinkle**, Henry Dreyfus Teacher-Scholar Award, Camille and Henry Dreyfus Foundation, \$60,000.

**Lisa Landino**, “Peroxynitrite Damage to Microtubule Proteins” National Institutes of Health Academic Research Enhancement Award, \$142,300.

**Bob Orwoll**, “Polyarylene Ether and Polyimide Materials with Improved Radiation Shielding Capabilities” NASA, \$217,935.

## News about Students

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### The Chancellor’s Academy

This summer was the inaugural year for the Chancellor’s Academy pre-collegiate summer program in science and math, with 60 high school juniors and seniors from throughout the country participating. Chemistry played an active role in the program by providing a three-week freshman seminar-formatted class for 15 students, entitled “The Chemistry and Politics of the Environment”, taught by Gary Rice. Several lab experiments with environmental relevance were performed (including collecting water samples from Crim Dell while amusing a three foot snake sunning itself on the overflow retaining wall). The ever popular magic show was also provided for the entire Academy group.

The overall program appeared to be a great success, and we anticipate that total enrollment will grow in future years. We also hope that other chemistry faculty will have the opportunity to participate in the program in the future and provide a positive experience, especially with respect to these students’ decisions for college destinations. If you know of highly talented high school students looking for a rewarding experience over the summer, please have them check the wmca web site at [www.wm.edu/wmca](http://www.wm.edu/wmca).

**Instructors Gary Rice (standing, left) and grad student Jeff Lee (standing, right) join the Chancellor’s Academy students for a group picture outside Rogers.**



### Beckman Scholar’s Program at the College

Early in 2003 the College of William and Mary was one of only 13 institutions nationwide to be awarded a prestigious Beckman Scholarship award. The Beckman Scholars program supports research by top-notch undergraduates majoring in chemistry and biology. It is sponsored by the Arnold and Mabel Beckman Foundation. Each student recipient is provided research funding for two summers and academic scholarship money for the intervening academic year. This is the William & Mary’s third consecutive Beckman Scholars award, and thus the College has maintained the support of the Beckman program without interruption from its inception in 1995. Only four other institutions nationwide can make this claim!

To date, Beckman Scholarships have been awarded to four chemistry majors at the College: Anne McNeil (‘99), Ann Mikowski (‘02), Edith Bowers (‘03) and Megan Dellinger (‘05). Each of these students had to go through a rigorous application process, including interviewing before a faculty committee. Following 15 months of intensive scientific investigation, the capstone of a Beckman Scholar’s experience is their attendance (along with their research advisor) at the annual Beckman Symposium held at the Beckman Institute in Irvine, CA. There the



Scholars from around the nation present their results and enjoy lectures by leaders in the scientific community (two Chemistry Nobel Prize winners were speakers on this year's program).



**Anne McNeil** was the Chemistry Department's first Beckman Scholar and set a high benchmark for excellence in the program. Anne carried out research with Prof. Rob Hinkle. Her thesis was entitled "Synthesis and Decomposition of Alkenyl(aryl)iodonium Triflates". Anne's work was published in two scientific papers and she presented her work at a national ACS meeting. She was awarded highest honors for her thesis and in addition received the Guy Prize, the department's award for highest academic achievement by a graduating senior. Anne entered a Ph.D. program at Cornell University in the fall of 1999 and joined the research group of Prof. David Colum. Anne writes, "After breaking a lot of expensive glassware my first summer, I began a project in collaboration with Aventis Pharmaceuticals on the enolization and alkylation of beta-amino esters and amides." Anne hopes to graduate by next August and plans on doing post-doctoral work.



**Ann Mikowski** also carried out undergraduate research with Prof. Hinkle. She was awarded highest honors for her thesis entitled "Aryl Iodanes: Syntheses and Fragmentation Reactions". Ann was awarded the Virginia Section of the American Chemical Society Award. She entered the chemistry Ph.D. program at the University of Virginia in the fall of 2002. She was awarded a research fellowship and is working in the group of Prof. John Marshall on the synthesis of polyketide unnatural products using allenyl metal chemistry. Her product compounds will be tested against tumor cell lines. Ann is a coauthor on a paper and has presented her research at a national ACS meeting. A faculty member of a large university wrote of Ann's presentation at the Beckman Symposium, "Ann was remarkably knowledgeable about [all] aspects of her project."



**Edith Bowers** was a researcher in Prof. Deborah Bebout's laboratory. Edith was also the recipient of a freshman Howard Hughes Medical Institute (HHMI) Scholars award, and so began research during her first semester at the College. She graduated with highest honors in Chemistry research and a double

major in Chemistry and Physics. Edith's thesis was entitled "Investigation of Hg(II) and Cd(II) Coordination with Dipodal and Tripodal Ligand Systems". She is a coauthor on two scientific papers and presented her research at numerous meetings. She will start pursuing an M.D./Ph.D. this fall at Duke University.



**Megan Dellinger** has just begun her Beckman Scholarship research in the group of Prof. Bob Pike. However, she has already been named as author on a scientific paper as a result of her work as a freshman HHMI Scholar. Megan is also a Dow Scholar. Her research is in the area of new metal-organic network materials to be used as catalysts. She will present her work at next year's Beckman Symposium. Bob Pike had this to say about her: "Megan is a truly outstanding student and a real leader in my research laboratory. It's a real pleasure to mentor such a promising young scientist."

### James Cahoon Awarded Thomas Jefferson Prize

Chemistry graduate James Cahoon ('03), who has been honored as a Goldwater Scholar and awarded membership in Phi Beta Kappa, was named the recipient of the College's Thomas Jefferson Prize in Natural Philosophy at Charter Day 2003. James, also a philosophy major, earned a near-perfect grade-point average, and was awarded highest honors designation for his research with Prof. Bob Orwoll. A paper entitled "Preparation and Characterization of Polyimide/Organoclay Nano-composites" detailing James' research appeared in the journal *Polymer*.

Coming out of Norfolk's Maury High School with an impressive 42 hours of advanced placement credit, James already knew that he would pursue a career in science. At William and Mary, he ultimately chose chemistry as the discipline with the "right mix of science and mathematics and biological principles."

While at the College, James explored numerous fields of study, including those related to his co-major, philosophy.

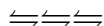


During Charter Day ceremonies, James Cahoon poses with two Nobel Prize winners: College Chancellor Henry Kissinger and U. N. Secretary General Kofi Annan.

Special activities in which he has been involved include work for The Flat Hat, service as president of the Chemistry Club and as founder and president of the Secular Humanist Association for Free Thought. Among elective classes, he has enjoyed jazz guitar. "It is teaching me what is needed just for jamming," he says. In the summer of 2002, he utilized his Monroe Scholarship to travel to Florence, Italy, in order to study what about that city enables artists to thrive there.

"I love William and Mary," he says. "It's a great place to spend four years, and I'm really glad I came here. Certainly I could see myself someday on the faculty. I think you would be hard-pressed to find another college that offers the same kind of experience."

Chemistry faculty member Carey Bagdassarian was awarded the Thomas Jefferson Teaching Award at Charter Day (see page 5), making a clean-sweep of the Jefferson awards for Chemistry in 2003.



**Well, we're all a few pounds heavier after consuming numerous batches of homemade icecream this summer! Students doing summer research produced this delicious stuff, flavoring it with various combinations of chocolate, cookies and fruit. A glance at the photo below should tell you what refrigerant they utilized.**

*One of our favorite recipes: 4 c. heavy whipping cream, 4 c. skim milk (makes it healthier), 2 c. sugar, 2 Tbsp. vanilla and ½ bag crushed Mint Oreos.*

**At work are Krista Collopy, Jessica Johnson and Courtney Hastings, members of Prof. Harbron's group.**



**Prof. Abelt and Brittany Davis dish out their creation.**



**"Good morning, Chemistry Angels." A Landino Lab tribute to Charlie's Angels. Clockwise from top right: Prof. Landino, Jane Alston, K. T. Monyihan, Kelly Kennett, Sarah Robinson**

## News of Our Alums

*We were delighted to hear from so many of you in the past year, and encourage more of you to keep us up to date with what is going on in your lives. Information about how to contact the Department is on the back page of this newsletter (or contact your favorite professor, who can forward the message).*

**Ray Anderson** ('97), with a Ph.D. in biological chemistry from UVA under his arm, is entering the MBA program at Duke this fall with a concentration in health sector management.

**David Boerner** ('72) is in a pulmonary medical practice in Raleigh, NC. He received his MBA from Duke two years ago and is now also the Medical Director of Rex Healthcare. David had to miss his 30th reunion last year because of conflicts with his grandmother's 100th birthday celebration.

**Scott Bunge** ('97) has finished his Ph.D. in chemistry from Georgia Tech. He is now a postdoctoral research associate at Sandia National Laboratories.

**George Calvert** ('86) got his Ph.D. in analytical chemistry from U. of South Carolina in 1989, and started at Amway Corp. in Grand Rapids, MI as a group leader in charge of analytical services. He has been Vice President, Research and Development and Quality Assurance for Alticor (Amway) since 2001. George and his wife LaVerne have three kids.

**Stuart Chaffee** ('96), having earned his Ph.D. in chemistry from Yale University, now works for Amgen Company in Thousand Oaks, CA.

**A. D. Chambliss** ('43), is a semi-retired dentist (MCV Class of '52) who served in the Navy during WW II, and now enjoys woodworking, jewelry making and welding. He and his wife Marjorie have two sons, Arthur, Jr., and Jerry.

**William Ditto** ('40) has been keeping up with the Department's progress through our newsletters. He guesses that at 80, he is one of the more senior of our graduates.

**Amy (Sprinkle) Dorsey** ('01) received her Master's in forensic science from GWU in May and is a chemist with the Kentucky State Police, working in the trace evidence section in their central forensic lab.

**Alex Doyal** ('02) worked with the Cystic Fibrosis Center at the University of North Carolina-Chapel Hill for the last year and (having established residency in NC) is now enrolling in medical school at UNC-Chapel Hill.

**Robin and Chris Felder** ('77), twins, each received a Ph.D. in biochemistry. Chris is a group leader at Eli Lilly and currently working in London. Robin is serving as Director, Medical Automation Research Center, and Professor of Pathology at The University of Virginia. He is also serving as President of the Association for Laboratory Automation and MedicalAutomation.

**John Gilmer** ('78) received his Ph.D. at U Mass, and currently ia a Research Associate at Eastman Chemical in Kingsport, TN, where his interests include polymer morphol-

ogy, phase behavior of copolymers and blends, and nanocomposite materials.

**Will Gomaa** ('00) is a policy analyst and intern coordinator for the non-profit Institute for Taxation and Economic Policy in Washington, DC.

**R. H. Gordon** ('55) has been practicing medicine for more than 35 years. He is a Professor of Medicine at ODU and founder and CEO of Prompt Medical, Inc.

**Fiona Grooms** ('02) after a marvelous experience studying medieval philosophy at Notre Dame in the summer of 2002, decided to enter the graduate program in philosophy at UVA last fall, where she finds the material fascinating and challenging and the faculty graciously helpful.

**Brian Hubbard** ('94, Ph.D. Illinois) has recently begun a new job in Cambridge, MA as the head of the Enzymology, Diabetes and Metabolism group at the Novartis Institutes for Biomedical Research.

**Pete Kourtesis** ('94, M.A. '96) received his Ph.D. in computational biochemistry from American University this past spring. He has accepted a post-doc position at the Bioinformatics Core Facility at the National Heart, Lung and Blood Institute at NIH, studying gene transcription and translation.

**Betti Joyce (Breen) Lide** ('69) is Program Manager for Healthcare Informatics in the Advanced Technology Program at NIST, and her husband, David Lide, is editor of the CRC Handbook of Chemistry and Physics. Her older son, Neil Molina, expects his Ph.D. in applied math/computer science from Stanford in 2004. Neil's younger brother Van, a sophomore at Princeton, plans to major in math or physics. Betty writes that she still remembers what a great professor of organic chemistry Trevor Hill was.

**Jason Macko** ('97) received his Ph.D. in polymer science from Case Western Reserve University. He is now employed as a polymer chemist at Honeywell Corporation in Richmond.

**John Maksymonko** ('99) is living in Arlington, VA and is hoping to go to law school beginning in 2004.

**Carl R. Merrill** ('58) joined the NIH as a research associate after receiving his MD from Georgetown in 1962. He is now the chief of the Laboratory of Biochemical Genetics at the NIMH, and the author of more than 220 papers.

**Jeff Molloy** ('90, Ph.D. Wisconsin) has joined the chemistry department at James Madison University.

**Tanya Myers** ('92) is a Research Scientist in the Bioanalytical Chemistry Department at Solvay Pharmaceuticals in Marietta, GA.

**Ryan Quarberg** ('99), has finished his Ph.D. at U. Tenn and is now in the engineered materials division at Cytec Industries, which makes film adhesives for the aerospace industry. Ryan is head of an analytical lab for R&D and Quality Assurance.

**Adam Rawlett** ('95) got his Ph.D. from Rice in 2000 and worked as a principal staff scientist at Motorola Labs before taking his current position at the U. S. Army Research Labs in Aberdeen, MD. Adam is an expert in the nanotech field, in particular molecular scale electronics, and has over 30 papers, including 3 in Science.

**Michelle (Ricketts) Reardon** ('97) received her M.S. in forensic science at GWU in 1999, married, and worked at NIST for two years before moving to the Bureau of Alcohol, Tobacco and Firearms, where she is a forensic chemist examining explosives evidence submitted from intact and post-blast cases. She loves it!

**Dale Rose** ('62) retired in 1991 as Supervisor of Science for the Hampton, VA, School System, and is enjoying teaching and playing harmonica again.

**Sandy (Poteat) Thompson** ('90, M.A. '91) is in Costa Mesa, CA working as a patent attorney for Rutan & Tucker. She reports that she is the only chemist in the group, and that most of her work centers around semiconductor and electronic materials, polymers, pharmaceuticals, chemical intermediates, metals and fibers. Sandy also completed her Ph.D. in chemistry at N.C. State in 2001.

**Gonzalo (Vike) Vincente** ('94) is a pediatric ophthalmologist in Bethesda, doing eye surgery on kids. His wife **Wendy Sauer**, another '94 chemistry graduate, is a patent attorney at Fish and Richardson in D.C. Wendy tries to get involved in the chemistry patent cases, and still keeps a copy of Solomon's in her office. Vike says he remembers the chemistry department fondly, but there's no Solomon's in his office.

**Mike Wassell** (M.A. '94), who has been working in the environmental office at Redstone Arsenal in Huntsville, AL for 9 years, just got a job in their propellant research division. Mike is very excited about this job because it is something he has wanted to do ever since graduation from William and Mary: "That is chemistry research!", he says.

**R. C. Williamson** ('44) is Chairman of the Board, Natural Gas Co. of Virginia, in Richmond. He and his wife Betsy (Mary Baldwin) have three sons; Richard (U. S. Naval Academy), Kent (Richmond Seminary), and Bradford (Bridgewater).

**Chris Woleben** ('93), graduated from MCV in 1997, went on to do his residency in pediatrics there, and was Chief Resident in Pediatrics at MCV from 2000–2001. After a brief experience as a pediatric ER physician in Richmond, he was offered a full-time faculty position at MCV in the pediatric ER last year. Chris is renovating and modernizing an older house near the Fan district in Richmond.

**Ivana (Verona) Yang** ('96) completed her postdoctoral work at the Institute for Genomic Research in Rockville, MD and recently entered a position as Research Professor at the Duke University Medical Center.

◊ <sup>M</sup> ◊ <sup>H</sup> <b>Edith Villette Bowers</b>	graduate studies in M.D./Ph.D. program, Duke (chem/phys)
◊ <sup>M</sup> ◊ <sup>H</sup> <b>William Edward Brenzovich</b>	graduate studies in chemistry, Scripps
◊ <sup>M</sup> ◊ <sup>H</sup> <b>James Francis Cahoon</b>	graduate studies in chemistry, UC-Berkeley (chem/philosophy)
<b>Janet Levon Chapman</b>	not reported (Dec. '02)
<b>Alexander Chen</b>	not reported (chem/bio)
<b>Thomas Kristopher Chen</b>	graduate studies in chemistry, UNC-Chapel Hill
<b>Brittany N. Davis</b>	studies in Spain senior year (May '04) (chem/Hispanic studies)
<b>Adam Austin Deer</b>	graduate program in painting & printmaking, MD Inst. C. of Art (chem/art)
<sup>H</sup> <b>Kimberly Alice Dendramis</b>	masters in chemistry, Ohio U
<b>Matthew Scott Detar</b>	dental school, MCV
<sup>M</sup> <b>Anna Victoria Durden</b>	graduate studies in chemistry, Columbia
<b>Jonathan David Harper</b>	undecided
<b>Christopher Edwin Henry</b>	graduate studies in chemistry, UCLA (chem/bio)
◊ <sup>D</sup> ◊ <sup>M</sup> <b>Krista Lee Hessler</b>	law school, Harvard
<b>Andrew Johnson Hill</b>	pharmaceutical sales representative, Norvartis
<b>Hung-Lun John Hsia</b>	medical school, UVA (bio/chem)
◊ <b>Jeffrey Scott Iwig</b>	graduate studies in biochemistry, Washington U-St. Louis (chem/bio)
<sup>H</sup> <b>Christopher Michael Jones</b>	graduate studies in chemistry, Arizona
<sup>M</sup> <b>Robert Randolph Knowles</b>	graduate studies in chemistry, CalTech
<b>Mark Joseph Lachowicz</b>	looking for employment
<sup>D</sup> ◊ <sup>M</sup> <b>Janine Suzanne Ladislaw</b>	graduate studies in chemistry, U. Pennsylvania
<b>Timothy Ray Leftwich</b>	work or a year before graduate school (chem/physics)
◊ <sup>H</sup> <b>Bethany Christa Lobo</b>	law school, Harvard
◊ <sup>H</sup> <b>Scott Edward Lyle</b>	medical school
<b>Brian Thomas Masick</b>	research assistant, Norvartis Res. Found. (chem/Hispanic studies)
<b>Gabriella Luisa Mirabilio</b>	earn a teaching certificate and teach high school chemistry
<b>Rebecca Lynn Monseess</b>	chemistry teacher, Hanover Co. Public Schools
<b>Andrew Wayne Moore</b>	undecided
◊ <b>Matthew A. Morgan</b>	serve in Americorps (chem/English)
<b>Ryan David Muller</b>	medical school, U. of South Carolina
<b>Ethan Scott Munzinger</b>	intern at Johns Hopkins for summer (chem/religion)
<b>Stephanie L. Murray</b>	Peace Corps
<b>Henry Joseph Nothnagel</b>	graduate studies in chemistry, Penn State
<b>Lindsay Anne Papp</b>	medical school, UVA (chem/bio)
<sup>M</sup> <b>Lara Elizabeth Pawlow</b>	work for year before medical school
<b>Miriam Pevzner</b>	graduate studies in chemistry, Purdue
<b>Ronald Allen Quinlan</b>	graduate studies in chemistry, U. Tennessee
<b>Shazia Amtur Raheem</b>	pharmacy/MBA program, MCV
<b>Armen Youri Sharabian</b>	masters program in chemistry, W&M
<b>Michael John Steve Simulescu</b>	medical school
◊ <sup>M</sup> <b>Tabor Elizabeth Skreslet</b>	medical school, UVA
<sup>H</sup> <b>Adam David Slansky</b>	attend a post baccalaureate program, then medical school
<b>Joel Philip Thomas</b>	working at NASA-Langley as assistant to the Inspector General
<sup>M</sup> <b>Jonathan Vernon Todd</b>	systems analyst, American Management Systems

◊<sup>PBK</sup> <sup>D</sup>Dow <sup>M</sup>Monroe <sup>H</sup>Honors

## Master's Candidates and Their Destinations

**Jie Guo** (M.A. May '02) has returned to China.

**Shiyang Shang** (M.A. May '02) has entered the Ph.D. program in pharmacology at Cornell Medical Center.

William George Guy Prize in Chemistry  
 Virginia ACS Award  
 American Institute of Chemists Award  
 Alfred Armstrong Teaching Assistant Award  
 Hypercube Award  
 Merck Index Award

## Departmental Awards

**James Cahoon**  
**Skip Brenzovich**  
**Bethany Lobo**  
**Skip Brenzovich,**  
**Janine Ladislaw**  
**Jeff Iwig**  
**Edith Bowers, Janine Ladislaw,**  
**Scott Lyle, Tabor Skreslet**



## Old Rogers Recollections

### Trevor's Ramblings



I guess my cracker-barrel philosophical ramblings in organic class in old Rogers (or in new Rogers, for that matter) are all too well-remembered by my past students, and indeed, I am sure many of you often wondered if I was ever going to discuss any chemistry. Sometimes from the cracker barrel came musings of the remarkable advances in laboratory instrumentation ranging from, say, the polarimeter, which is one of our best optical instruments, to an astonishing array of spectrophotometers and NMR, which provide critical clues to structure and molecular dynamics. Peter Sykes, one of our Visiting Professors from Christ's College (Cambridge) stated that, for the chemist dealing with the many millions of chemical compounds, structure is no longer the problem it used to be. Improved techniques in chromatography (gas, high pressure liquid, etc.) coupled with mass spectral analysis have enabled us to readily identify components in complex mixtures. Computers have reduced hours of tedious calculation and literature-searching to seconds. The sequencing of amino acid residues in polypeptides, a hideously near-impossible task in the '40s, is now performed automatically. Many other examples may be cited.

The quantum jumps in other areas are equally remarkable. When I was a year old, Lindberg flew the Atlantic! While the newscasts of this achievement are somewhat fuzzy in my mind, I clearly recall my personal flying experience only 10 years later: a flight from Buffalo, N.Y. to Newark, N.J. on a DC-3 with my father to see the 1939 World's Fair. I was apprehensive at the airport on seeing the silvery DC-3 with its two monstrous engines connected to and supported by its *wings*. Surely the wings would separate from the fuselage during the flight! Mercifully the wings remained with us (to Newark at any rate). So in my lifetime I have seen technological developments which include trans-Atlantic flight, the FM radio, television, jet engined airliners, artificial satellites for communication and global positioning, moon landings, magnetic and optical recording, nuclear power and computers, to name a few.

There is a dark side to all this progress. Millions were killed in WWII from guns, tanks, mines and torpedos, gas chambers, and many thousands of tons of bombs. Opposing sides threw everything they had at one another. A pause came when a single B-29 dropped two

bombs, in two missions over three days, decimating two cities and creating 199,000 casualties, including 105,000 dead. The unleashing of the atom bomb forced Japan to capitulate. So, within 80 years our technical advances have progressed from the ability to slaughter thousands in a day of troops charging into machine guns (WWI) to the ability to obliterate hundred of millions in an hour with nuclear missiles. One wonders: Can the ethics of our governing bodies (themselves so often governed by greed) keep pace with the technology of destruction? The old among us will recall our grade school history teacher citing how history repeats itself; the young of today cannot afford such repetitions.

Now from the bottom of the barrel, a prayer which is already known to most, asking God to give us the strength to change (for the better) those things we can change and leave alone those things we cannot change; but, above all, have the wisdom to know the difference. I only mention this because current world events suggest that this wisdom is being sorely tested.

Finally, what does all this have to do with Rogers Hall? Actually nothing; I guess I simply strayed off the track again.



## Call for Alumni Speakers and Alumni Advisory Committee

The chemistry department values the experience and expertise of its alumni. We would like to create an environment where that experience can be shared with current students, faculty, and the College's administration. First, we invite you to consider giving a talk on your career and experience as a chemist at one of our Friday afternoon seminars.

Second, we would also like you to consider serving a four year term on a William and Mary Chemistry Alumni Advisory Committee. This committee would meet every other year (or as needed) to review our current program, future plans, and provide recommendations to the chemistry faculty and the administration. We believe both of these steps would strengthen our program significantly.

If you are interested in helping with either or both of these endeavors, please write the department chair, Gary Rice, or any of the faculty. Once we have generated a pool of interested alumni, we will formulate a plan to fit everyone's mutual interests. We should add that, given the current fiscal situation in Virginia, our budget does not allow funds to help defray most travel expenses.

## 2002 Chemistry Reception



**Tanya Meyers and Steve Knudson, no doubt absorbed in a conversation about physical chemistry.**



**Patrick Doyal has a whispered word with his father.**



**Dave Thompson entertains Trevor Hill and Peggy Schott with selections from the Liturgy of the Hours.**



**Another cute munchkin—we think she belongs to Janice and Andrew Langer.**



**Elaine Eliezer and Trevor Hill enjoy a reunion.**



**The Updikes chat with Gary DeFotis.**



**Dick Kiefer visits with Elizabeth Doyal.**

AT LAST FALL'S RECEPTION we visited with Winfred Ward ('54), T. Scott Key ('72), and Ken Updike ('76). The class of '77 was represented by Carol (Baranofsky) Pugh (with husband Mark), Elaine Eliezer, and Peggy Schott. We also welcomed back John Quagliano ('85), Eugene Aquino ('88), and Jeff Molloy ('90). The Langers—Janice (Moseley, '92), her husband Andrew ('93), and their 6 month old daughter—were there, along with Tanya Meyers ('92) and her husband Chris Beck ('93), Cedrine (Nevoret) Bell and Kristen (Siegfried) Gerrety, both also from the class of '92. We were pleased to see Michael Clark and Adam Weakley from the class of '00, Manish Singla ('01), Geoff David ('02), and the Doyal family—Alex ('02), Elizabeth ('02) and Patrick (9 months).

## Chemistry Invites you to our reception during Homecoming 2003!

The Department is having its wine and cheese reception for chemistry graduates in Rogers Hall on Friday, October 31, starting at 5:30 p.m. We look forward to seeing you there. This year's budget restraints won't allow us to mail additional individual invitations to alums who graduated 5, 10, 15 years, etc., prior to the most recent class year, as we have done several times recently. If you can join us, please try to let us know by October 17.

You can e-mail us at [pxhilg@wm.edu](mailto:pxhilg@wm.edu), give us a call at 757-221-2540, or return this form to:

Trevor Hill  
Chemistry Department, College of William and Mary  
P.O. Box 8795  
Williamsburg, VA 23187-8795

Yes, I plan to attend the Chemistry reception on Friday, Oct. 31, 2003, at 5:30 pm.

Name \_\_\_\_\_ Class of \_\_\_\_\_ No. of guests \_\_\_\_\_

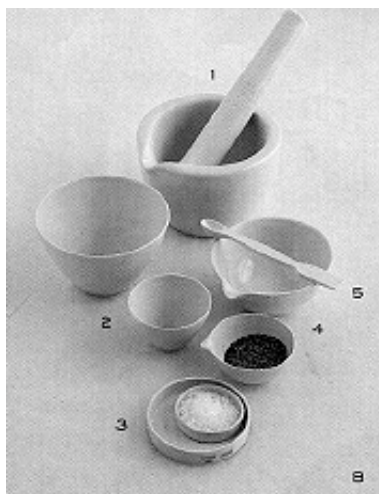
Even if you're unable to come, please consider using this space to let us know what you're doing and mailing this form to us at the above address. We'd love to hear from you.

## Marginalia

Earlier this year Dave Kranbuehl visited Quivira Winery in Napa Valley, CA. While there he heard a familiar name mentioned, and discovered that Grady Wann ('76) is winemaster there. Dave enjoyed visiting with a former student, and even brought back a bottle of Zinfandel (autographed by the winemaster) to share with colleagues.



Cheers!



### NEW LABWARE

B. Use these industrial lab tools as serving pieces. Porcelain. Dishwasher-safe.

1. MORTAR AND PESTLE (Mortar: 3¼"H, 1" diam.; Pestle: 7" L) **KCT003 \$35**
2. CRUCIBLES Bowl shape. Sets of 4  
LARGE (3"H; 4" diam.) **KCT005 \$35**  
SMALL (1¾"H; 2½" diam.) **KCT010 \$24**
3. CAPSULES Flat dish shape. Sets of 4  
LARGE (½"H; 2¾" diam.) **KCT006 \$28**  
SMALL (⅜"H; 2" diam.) **KCT005 \$20**
4. EVAPORATING DISHES With spout.  
Sets of 2  
SMALL (1¾"H; 2¾" diam.) **KCT008 \$18**  
LARGE (2"H; 4¾" diam.) **KCT007 \$24**
5. SPATULA (2"L) **KCT004 \$15**

Martha Stewart offered these items for sale last year in her catalog, but "serving pieces"? Perhaps in a doll house. They should be dishwasher-safe, though.

This label, on a piece of mail delivered to Chemistry last year, shows that an old chemist never dies—he migrates to another building on campus. At least his name was spelled correctly.

William Barton Rogers  
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The College of William and Mary  
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