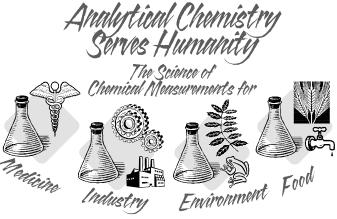


# AMERICAN CHEMICAL SOCIETY DIVISION OF ANALYTICAL CHEMISTRY





# **Spring Meeting**

March 13-17

# **SPRING 2005 EDITION**



# **Two Questions for Analytical Division Members**

by John H. Callahan, Analytical Division Chair

The New Year is a time for both reflection and looking ahead, although I doubt most of us have the time to even remember to do it. Fortunately, two recent pieces in C&E News, one an editorial and the other a policy statement from the incoming ACS President, William F. Carroll, served as a reminder to me and have stimulated some thought about the past and future. The issues raised are important not only to the ACS, they are also very relevant to the Analytical Division and how it can best serve its members. Perhaps you have already read the articles in question, but if not, I urge you to take a look at them. I hope that they can serve as a starting point for some discussion about the role and direction of the Analytical Division as well.

The first piece in question is an Editorial by Rudy Baum, Editor-in-Chief of C&E news, that appeared in the November 8, 2004 issue (Volume 82, Number 45, Page 5). Entitled "A Radical Notion", Baum suggested that the ACS should consider changing its name to the Society for Molecular Sciences and Engineering. The name change would reflect the fact that we are no longer an American scientific organization (60% of the paper published in ACS journal come from outside the U.S., so why be parochial?). It would also address the fact that chemistry is a far more diverse discipline than it used to be, and that many scientists are doing chemistry but calling themselves something else (e.g.

molecular biologists, materials scientists, nanotechnologists). A name change would potentially draw the attention of such scientists. As reflected in the letters to the editor in response to this, many people are thinking hard about the changing nature of our field.



The second thought provoking piece is the statement written by the incoming ACS President, William F. Carroll (January 3, 2005 issue of C&E news, Volume 83, Number 1, pp 2-4). Again, I hope you will take time to read the statement for yourself. Carroll addresses some of the same issues raised in Baum's editorial. I take particular note of the section entitled "Challenges for the Society". To summarize, Carroll writes that although the ACS is the largest singlediscipline scientific society, with a declared mission to be a "big tent", the increasingly multidisciplinary nature of chemistry presents real challenges for the Society. Carroll notes that the "big tent" has been leaking and the ACS has become "the second membership choice in a budget that can only afford one." In order to remain the big tent, the society has to offer a home for multidisciplinary groups and sub-fields that have been forming separate societies, in presumed competition with the ACS.

In some ways, analytical chemistry community, which has always been multidisciplinary in nature, has already faced and addressed (by default if by nothing else) some of the issues raised by Baum and Carroll. Nevertheless, I would like to pose two questions as a starting point for what I would hope would be an ongoing discussion about the future of the Analytical Division and its relationship with the ACS and the analytical community. 1) What is and what should be the role of the Analytical Division in shaping the future of the ACS as it undergoes needed changes? 2) What is the role of the Analytical Division of the ACS relative to the wide variety of organizations that represent the diverse analytical community?

(continued on page 3)



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# San Diego Meeting Technical Program

John H. Callahan, Program Chair

The Analytical Division Technical Program for the March 13-17 meeting in San Diego is now complete. In addition to the wonderful location, the Division has planned a technical program that should be of interest to wide cross section of its membership. We are also embarking on a change from recent practice and adding contributed oral papers to the program. In this case, the contributed sessions have been organized in concert with specific symposia and their invited speakers. If successful we will consider the expansion of contributed papers at future meetings.

Highlights of the Technical Program include four ACS National Awards symposia: the ACS Award in Analytical Chemistry honoring Joel Harris (organized by Fred Lytle), the ACS Award in Chromatography honoring Pat Sandra (organized by Milos Novotny), the ACS Field and Franklin Award in Mass Spectrometry honoring Marvin Vestal (organized by Steve Martin), and the ACS Nobel

Laureate Signature Award honoring Christy Haynes and Richard Van Duyne (organized by Paul Bohn). There will be a series of three related symposia on Sensors and Biosensors organized by C.J. Zhong, Mark Schoenfisch and Sylvia Daunert; these will include both invited and contributed papers. Two symposia will focus on sensors and instrumentation for field measurements in areas of environmental concern: Kim Prather has organized a session on Atmospheric Chemistry and Tim Short has organized a similar session for Marine Sciences. Two symposia will focus on mass spectrometry: Gary Siuzdak will preside over a session on state-of-the-art bioanalytical mass spectrometry and Richard Vachet and Victor Ryzhov have organized a session on gas-phase ion chemistry. There will also be a focus on separations and chromatography: A symposium focused on Laser Trapping and Separation has been organized by Sean Hart; Frank Svec has organized a session on monolithic

phases for liquid chromatography; and Andras Guttman will preside over a session honoring the contributions of the late Csaba Horvath.

Finally, there are several special or collaborative symposia in which the Division is involved. Cindy Larive of the education committee has organized a symposium entitled "The Next Generation of Chemistry Professionals". Cosponsored symposia include "Finding Criminals with Forensic Chemistry", the Undergraduate Research Poster Session, and "Novel Approaches to the Analysis of Modern and Ancient Sediments and Sedimentary Rocks".

The Division poster session will be held Sunday night from 7-9 pm.

I sincerely thank all of the symposium organizers for their efforts in putting together the program for San Diego. As always, input on the program is both requested and welcomed, as it will be used in planning future programs.

Analytical Division Symposia	S	M	Tu	W	Th
Analytical Chemistry in the Atmospheric Sciences	D	Α			
Biosensors and Sensors: Nanostructures	D	D			
Laser Trapping, Manipulation, and Separation	D				
General Papers	E				
ACS Award in Chromatography: Symposium Honoring Pat Sandra		Α			
The Next Generation of Analytical Chemistry Professionals		Α			
ACS Award in Analytical Chemistry: Symposium Honoring Joel Harris		Р			
Symposium in Memory of Professor Csaba Horvath		Р			
Sci-Mix		Е			
Monolithic Stationary Phases for Liquid Chromatography			Α		
ACS Nobel Laureate Signature Award Symposium: Spectroscopy at the Nanoscale			D	Α	
Biosensors and Sensors: Functional Polymers			D	Р	
State of the Art in Biomolecule Mass Spectrometry			Р		
ACS Field and Franklin Award in Mass Spectrometry: Symposium Honoring Marvin Vestal				D	
Analytical Chemistry in the Marine Sciences: Instrumentation and Sensors for Measurements in the Field				D	
Biosensors and Sensors: Bacteria-Based and Cell-Based Sensors					Α
Gas-Phase Ion Chemistry in Analytical Mass Spectrometry					D
Bioanalytical Techniques for Detection of Bacteria, Toxins and Proteins					Р
Co-sponsored Symposia:					
Undergraduate Research Poster Session: Analytical Chemistry (CHED)		Α			
Finding Criminals with Forensic Chemistry (COMSCI)		D			
Novel Approaches to the Analysis of Modern and Ancient Sediments and Sedimentary Rocks (GEOC)			Р		

**Legend:** A = AM; P = PM; D = AM/PM; E = EVE

With regard to the first question, let me add some information that places the question in some context. First, the Analytical Division is the second largest ACS division, with over 11,000 members. Four councilors from the Division sit in the national council and probably have the most direct input on the actual governance on the ACS. Beyond that, the single biggest influence that the Division has is through programming technical sessions at the ACS national meetings. The Division does many other important things that should not be minimized. These include awards that recognize leaders in the field. graduate fellowship programs, undergraduate awards for presentations at national meetings, regional meeting support, education and outreach. However, a significant amount of the budget and of our time is devoted to planning for and executing the technical programs at the national meetings. The technical program consists mainly of invited symposia suggested by any number of sources and is supported by division financial resources (this year we are adding more contributed sessions, a trend we hope to continue). However, if change is truly coming to the ACS, and it is truly going to make an attempt to become a home for new, multidisciplinary and changing fields, then the Analytical Division, which is already highly multidisciplinary itself, must play a significant role in helping bring that about. This could mean a number of things. It will almost certainly mean that the division will have to support programming that will actually appear under other banners or divisions (much wider ranging multi-division symposia), and we may need to devote resources to programming that does not fit into traditional sub-disciplines in analytical chemistry. Whatever we do in support of the ACS, it is absolutely critical that we have input from our membership. What do you think the Division be doing in support of the National Meetings and the ACS?

The second question I raised pertains to our relationship to the larger analytical community. President Carroll has asked the same question about the ACS relative to chemistry as a whole, and at the risk of oversimplifying his position, he thinks the ACS needs to get back members that its has lost (or never had). I take a slightly different position on this, given the history of analytical chemistry. If we look at the analytical community as a pretty good sized tent of its own, the Analytical Division of the ACS is only one of many tent poles. There are bigger analytical meetings that compete against our programming (e.g. Pittcon). There are analytical-based organizations (e.g. the American Society for Mass Spectrometry,

of which I am also a member) that are rapidly increasing in size and have meetings with more scientific presentations than the sum of our two semiannual gatherings. There are many other examples. The Division (and the ACS) has no doubt lost members to other analytical societies. In many ways, the issue (leakage of the tent) that Carroll raises for the ACS as a whole has already been faced by the analytical community. And yet, it would appear that our response has been to let things evolve as they would. People seem to like a leaky tent; they enjoy belonging to smaller societies that may specifically address their interests and needs in a way that larger ones cannot. Analytical science, like so many things, is probably not done best under a single overarching organization or authority.

So how do we balance the desire to have a great deal of flexibility in our allegiances and memberships with the fact that we are devoting resources to support the Analytical Division of the ACS? What is our role in the analytical community and how do we implement that role? Practically, I do not think that we can simply mount an attempt to grab members from other organizations. Rather, we may need to think about really investing our limited resources in making our meetings as relevant as possible to our membership and other potential members or attendees. For example, at present we program at the Fall and Spring National meeting, with the spring meeting often falling within a week or two of Pittcon. A better expenditure of our effort might be to move all of our programming to the Fall meeting and to concentrate on making it a program that a wide range of analytical chemists will want to attend. Another approach might be to look at the possibility of allying ourselves with other analytical societies to the benefit of each. Is there a way we could do joint programming with other analytical organizations (or subdisciplines looking for a home), using either the spring or fall meeting as the meeting site (this would require some help from the ACS with joint registration, etc)? There are many other possible approaches that might be taken as well. What do you think we ought to be doing in this regard?

If you have any thoughts on either of these questions, I urge you to pass them along to me or another Division officer. Even better, become involved as a committee member or run for a Division office. An active and engaged membership will ensure that as change comes, the Analytical Division will assume a useful and valuable role in the process.

# Division of Analytical Chemistry Executive Committee Meeting

The next DAC Executive Committee meeting will be held on Saturday, March 12, 2005 from 1-5 pm in room 27A of the San Diego Convention Center. Division members are welcome to attend. Members are encouraged to suggest topics for the agenda by sending them to Steve Petrovic, the Division Secretary (Petrovis@sou.edu).



Buffalo State (SUNY) will receive applications for a tenure-track assistant professor, Chemistry Department, to begin September 2005. Salary is competitive. Teach analytical chemistry, instrumental analysis, a graduate chemistry course, and general chemistry courses. Develop and teach new and existing forensic laboratory courses at both graduate undergraduate levels. Develop an effectorientated forensic analytical chemistry research program involving both under-graduate and graduate students. Doctoral Degree is required in the field of chemistry, forensic science, or related. Must document either coursework, research experience, or work experience in major areas of modern analytical chemistry. Preferred experience in analytical techniques utilized in the forensic chemistry field, actual experience in the field of forensic science, teaching experience, and postdoctoral experience. Review of applications will begin January 31, 2005, and continue until the position is filled.

Send vita, transcripts of all undergraduate and graduate work, and 3 letters of recommendation, and a statement of teaching and research philosophy to: Dr. Zeki Al-Saigh, Professor and Chairman, Department of Chemistry, Buffalo State College, 1300 Elmwood Ave., Buffalo, NY 14222-1095. For more information about the college, visit www.buffalostate.edu.

# **EAS** planned for November

by Barbara Kebbekus

The 2005 Eastern Analytical Symposium will be held at the Garden State Exposition Center in Somerset, NJ, November 14-17. It is not too early to plan to attend, especially if you are considering submitting an oral paper or poster. The **deadline** for submitting contributed papers is **April 15<sup>th</sup>**.



Penny Moore, this year's Symposium president, has chosen the theme, "Innovation through Education", which expresses well the purpose of the Symposium. Last year, 23 one or two day short courses were given, and 19 workshops were conducted by various exhibitors. In addition,

there were four seminars designed especially for graduate students, undergraduates and high school students. Over 1700 people attended technical sessions on topics ranging from pharmaceutical analysis to art conservation.

The exposition itself is another educational experience, as it affords an opportunity to discuss your needs and problems with with more than 220 vendors of analytical equipment and supplies.

Much more information about the EAS is available on the web at **www.eas.org**, including applications for exhibitor booth space. Questions not answered there can be directed to Sherree Gold, the symposium executive secretary, by e-mail at **easinfo@aol.com** or to the EAS HOTLINE (610) 485-4633 and EAS FAXLINE (610) 485-9467. We hope to see you at EAS 2005!

# DAC Dinner at the San Diego Meeting

You will enjoy attending the Analytical Division Dinner Monday evening. The venue is Trattoria La Strada, a 5-diamond



"Cucina Toscana" restaurant in the popular Gaslamp Quarter of downtown SanDiego. At 5<sup>th</sup> and G Sreet (702 5<sup>th</sup> Ave), it is only a half mile from the Convention Center and most of the meeting hotels.

A reception (cash bar) begins at 6 pm with dinner served at 7. After antipasto and Caesar salad, you will have you choice of Spaghetti Alla Viareggina, Pollo Toscano, Farfalline al pollo, Ravioli Rossini, or Salmone in Salsa Di Rosmarino served at your table. You can check out this highly rated restaurant on the web: www.trattorialastrada.com

Besides the good food, this is a terrific opportunity to chat with your analytical friends and colleagues in a congenial atmosphere, talk with Division officers, and personally congratulate our awardees.

Those joining the Analytical dinners in the past tend to make it a regular event. If you haven't come before, make this one your first of many.

Tickets are available at registration (by mail or onsite) for \$58 (our cost) up to 10 am Monday morning. Advanced registration helps with the planning and is greatly appreciated.



See you there!

# **CALL FOR PAPERS**

Symposium on Sensors and Instrumentation for Counterterrorism Fall 2005 National American Chemical Society Meeting August 28 - September 1, Washington, DC

# **General Organizer**

John H. Callahan, HFS 717 Instrumentation and Biophysics Branch, Center for Food Safety and Applied Nutrition, Food and Drug Administration, HFS717, 5100 Paint Branch Parkway, College Park, MD 20740, Phone 301-436-2039, FAX 301-436-2624,

john.callahan@cfsan.fda.gov

## **Deadline for Abstracts**

150 word abstracts describing the paper are due on **April 29**, **2005.** Please see the American Chemical Society web page http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings/national/index.html

for submission of abstracts additional information.

# **Nature of the Symposium**

Sensors and Instrumentation for Counterterrorism is a five-part symposium sponsored by the Analytical Chemistry Division in collaboration with other ACS Divisions. The symposium is intended to provide focused sessions on technologies applied to counterterrorism so that attendees will be exposed to a wide range of analytical approaches. Papers are solicited in all aspects of applying sensors and instrumentation to counterterrorism efforts. Invited and contributors papers may be presented as oral presentations or

## **Focused Sessions**

Half-day or full day sessions consisting of about 5-10 talks per

session on research, development, and/or novel applications will be held in the following focus areas:

### Sensors and Instrumentation for Counterterrorism (I): Chemical Agent Detection

Organizer: Greg E. Collins, Chemistry Division, Code 6112, Naval Research Laboratory, 4555 Overlook Avenue S.W, Washington, DC 20375-5342, greg.collins@nrl.navy.mil

### Sensors and Instrumentation for Counterterrorism (II): Distributed Sensor Networks

Organizer: Susan Rose-Pehrsson, Code 6112, Naval Research Laboratory, Washington, DC 20375, srose@ccf.nrl.navy.mil

Sensors and Instrumentation for Counterterrorism (III):

#### **Biological Agent Detection**

Organizer: Karen L. Wahl, Pacific Northwest National Laboratory, MS P8-08, PO Box 999, Richland, WA 99352, karen.wahl@pnl.gov

#### Sensors and Instrumentation for Counterterrorism (IV): Explosives Detection

Organizer: Jehuda Yinon, Weizmann Institute of Science, Rehovot 76100 Israel, ciyinon@wisemail.weizmann.ac.il

## Sensors and Instrumentation for Counterterrorism (V): NUC/RAD Materials Detection

Cosponsored with Division of Nuclear Chemistry & Technology. Organizer: David E Hobart, Actinide Analytical Chemistry Group, Chemistry Division, Los Alamos National Laboratory, Mail Stop G740, Los Alamos, NM 87545, dhobart@lanl.gov

# **Division of Analytical Chemistry Awards 2004**

# Award in Chemical Instrumentation Sponsored by the Dow Chemical Foundation:

**Daniel Jed Harrison, University of Alberta** 



(left to right) - Al Ribes, Dow Chemical, presenting the award; Daniel J. Harrison, and Bonner Denton, Past Chair of the Analytical Division.

# Award in Electrochemistry Sponsored by the Cole-Parmer Instrument Co.:

Henry S. White, University of Utah

Arthur F. Findeis Award for Achievements by a Young Analytical Scientist Sponsored by Philip Morris USA:

David C. Muddiman, Mayo Clinic College of Medicine

Award for Young Investigators in Separation Science Sponsored by Agilent Technologies:

Andre M. Striegel, Solutia, Inc.

# **2004 Pfizer Graduate Travel Award**Sponsored by Pfizer Research & Development

The following students received travel awards to attend the 2004 Fall ACS meeting in Philadelphia:

Amanda Hummon, University of Illinois

Susan Reslewic, University of Wisconsin-Madison Kenneth Dokken, Kansas State University

Kristin Price, University of Kansas

Monsuru Gborigi, Northeastern Illinois University

Jonathan Shackman, University of Michigan



Award for Distinguished Service in the Advancement of Analytical Chemistry Sponsored by the Waters Corporation:

Mary A. Kaiser, DuPont Corporate Center for Analytical Sciences

Congratulations to the 2004 Division Awardees!

The Division of Analytical Chemistry of the American Chemical Society has established the Pfizer Graduate Travel Awards in Analytical Chemistry. The award provides funding for graduate students to travel to the Fall 2005 ACS National Meeting in Washington, DC and to present the results of their research in the form of a poster at the Poster Session of the Division of Analytical Chemistry. Funds from the Pfizer Award may be applied toward registration, travel, and accommodations. Only U.S. citizens and permanent residents are eligible. Preference will be given to those applicants who have not made a previous presentation at a National scientific meeting. Five awards of \$1,000 annually. are made

Application Deadline: March 4, 2005

See the DAC web-site for details and application materials. For more information contact Paul L. Edmiston (pedmiston@wooster.edu).

# J. Calwin Giddings Award for Excellence in Education Sponsored by the Dekker Foundation:

# Ted Kuwana, University of Kansas

#### **Award Address**

August 23, 2004 - Philadelphia, PA

## **Old Virtues, New Paradigms and Future Challenges**

It is a great honor to receive the J. Calvin Giddings Award for Excellence in Education by the Division of Analytical Chemistry.

Dr. Giddings for whom this awarded is named, made major contributions to separation science, particularly the method of field-flow fractionation. His many books and monographs are well known. Perhaps less well-known is that he was an avid kayaker who conquered most of the challenging rivers of the West and in the 70's led an expedition that is described in his book: the first navigation of Upper Amazon Canyons. His group went down 245 miles of treacherous white water preceding a National Geographic expedition by nearly 20 years. He was indeed a pioneer and leader.



Thanks to all of you who made this award possible and the Dekker Foundation for sponsoring the award.

I wish to thank all of my students, postdocs, associates and colleagues who have put up with me through the years. Without them, this award would not be possible. As you know, the secret to success is to surround yourself with individuals who are smarter than you.

With an emeritus status after 40+ years in academia, you spend time thinking about where you have been, where you are now, and what you would like to do with the remaining years of your life.

It is also a good time to reflect about the changing nature of our profession.

I have been fortunate to have the support of my family. Jane, who I met at UC Riverside some 40 years ago, has been my partner, helpmate and friend. (Thank you, my dear!) My daughter, Ellen, her husband Luke, and their daughters Mikka and Kira are here today. We had a family reunion over the weekend in Washington DC with my 92 year old mother-in-law, Iva and our son, Eric and his family, wife Karen and daughters Claire and Cami.

For us in education, many values are shaped by our mentors and passed through the generations. I had several marvelous mentors along the way - and they were much needed as I came from a rural background - a potato farm in Idaho. When I graduated from high school, I knew that I would have to work to pay for college. I did not get beyond the "A's" in the college catalogs since Antioch College had a work-study program. Little did I know the kind of college I selected. It was quite an experience, starting when I boarded a train in Idaho to Chicago and then to Yellow Springs, Ohio on the Pennsy line. None of my 3 older brothers or 2 sisters attended college. My mother, who died when I was 12 years old, always admonished me that I was the one in the family to attend college. My father had died 2 years earlier.

Antioch was the right place for me even though I had serious misgivings when I first arrived at this small liberal college in the middle of Ohio. The contrast with life on a potato farm in Idaho was substantial, to say the least. My Idaho community was 99% white and mostly Mormons. Antioch was 60% Jewish with students predominantly from the Eastern Seaboard states. They were very well educated and sophisticated. I was really intimidated. Blacks were integrated into the community. For example, Coretta Scott King graduated a few years ahead of me. I went from listening to cowboys and westerns to learning classical music. Coop jobs under Antioch's work/study program took me to work & live in Dayton, Detroit and Chicago.

Antioch was my beginning in chemistry. Professor Dick Yalman, a recent inorganic Ph.D. from Harvard, took me under his wing with a coop job in his lab. I synthesized, purified and characterized cobaltamine complexes. One day as I was trying to make a nitro cobaltamine, the pink precipitate that I left to dry in the filter paper was golden yellow when I returned next morning. Thinking that I may have made a mistake, I repeated the experiment and got the same result. I measured the rate of this conversion optically with a Beckman DU spectrophotometer. The color change was due to the initial nitroso (ONO) form converting to the nitro isomer. After thoroughly characterizing the conversion and synthesizing other similar complexes, Yalman suggested that I present the work at the Nat'l ACS meeting in Kansas City, since he would be in Europe at the time of the meeting. So, I went to KC- it was quite an experience. The late Professor Hans Jorgenson of Tulane University was chairing the session. He was a very caring person who would come back between speakers to check to see if I was okay - I must have looked as scared as I was. That first ACS talk was in 1954, 50 years ago!

Dick Yalman taught me about asking right questions, making precise measurements and trusting oneself. He was the one who encouraged me to go to graduate school.

The next person who had such a great impact on my life was the late Ralph N. Adams. He had joined the chemistry faculty just a year before I arrived at KU. His lab at that time contained one L&N Speedomax strip chart recorder and one L&N pH meter. I had just read two papers on chronopotentiometry in analytical chemistry authored by Charlie Reilley. I asked Ralph if it was okay to experiment with chronopot. He replied, go ahead. So, I assembled some batteries to make a high voltage source, a bank of resistors to control the current, and a three-way toggle switch for Off/On/anodic or cathodic current. I used the pH meter to measure the potential of the WE vs RE and improvised a circuit to feed voltage to the L&N recorder. With some 20 bucks in small parts, I was operational. The cost is quite a contrast compared to the several hundred thousands it takes today. Of course, the analytical problems are more complex today than the simple experiments we did then. Ralph's care and compassion for his students, his gentle but firm way of mentoring, and unquestionable integrity and personal values were virtues to be emulated. I remember that he turned down an invitation to attend a key symposium in New Orleans early in his career, saying he could not go because his friend, Joe Morris, a fellow student at Princeton and then teaching at Howard University in Washington DC, could not stay at the same hotel with him. The paper that was not given would have been my inaugural one as a graduate student, so Ralph's decision made a lasting impression. Buzz Adams lived his values. With respect to life's goals and directions, he simply said, "if you love what you are doing, the rewards will take care of themselves." He was a great educator, teacher and role model - attested to by his many students, postdocs and associates who have gone on to successful careers - and promulgated many of his virtues and values.

So much has changed through the years. My first airplane ride was a night flight from Salt Lake City to Chicago on a twin engine prop-driven plane. As the outside temperature fell, the cabin filled with fog, a cold and damp ride. My first jet ride was a Boeing 707 from Kansas City to Los Angeles for a job interview when I finished my Ph.D. degree. Now, we have supersonic planes, Stealth bombers, and outer space satellites – including Cassini now visiting Saturn. There has been a parallel change in analytical instrumentation, from the manually operated Beckman DU to micro-processor and computer-controlled spectrometers and miniaturized ones, like those made by Ocean Optics. Advances in electronics and optics, like the laser, have revolutionized instrumentation for chemical and biological measurements. Computer in all forms and styles are ubiquitous today – as you walk down the hall of a chemistry building, more students are peering at monitors than working at a lab benches with chemicals. The younger they are – the more adept they are with computers. Now many colleges and high schools, including Hays in Western Kansas, provide each student with a laptop or personal PC.

We used to consider the angstrom  $(10^{.8} \text{ cm})$  the ultimate unit but displaced by nano this, nano that, and micro has moved to femto  $(10^{.15})$ , atto  $(10^{.18})$  and now we hear about zepto  $(10^{.21})$  and yocto  $(10^{.24})$ . Single molecule detection is almost passé.

The human genome was sequenced ahead of schedule, thanks to contributions from analytical chemists who were adept in measurement science and instrumentation. Several of them are now applying their talents to characterizing proteins in various biological matrices – and as with the genome, looking to correlate structure to diseases and their treatment. Such endeavors have changed the paradigm of doing research – from individual entrepenaurs to members or leaders of large multidisciplinary groups tackling these complex problems.

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Research is now an integral part of many undergraduate programs. I like to think that programs such as the MACRO-ROA, supported by NSF chemistry some years ago, had an impact on energizing faculty of undergraduate institutions to incorporate research in the curriculum. Many of you have participated in NSF REU programs that have stimulated undergraduates to pursue graduate work.

I would like to talk a bit about a recent project that several of us have been involved in. That is, the Analytical Sciences Digital Library (ASDL). It is an example of a new paradigm in how a library collects and distributes information today. NSF's National STEM Digital Library program (<a href="www.asdlib.org">www.asdlib.org</a>) has funded over 40 grants to develop digital library collections. A recent article [Anal. Chem., 2004, 76, 398A-402A] provides ample description of ASDL to those interested.

I am reminded about Charlie Reilley's now famous quote, "analytical chemistry is what analytical chemists do." Today, many analytical types are involved in multidisciplinary research, as already mentioned. They publish in diverse places and attend many different conferences and meetings. In view of this diversity, perhaps it is apropos to say, "analytical science is what analytical scientists do." It takes a broader perspective to chemical measurements and instrumentation. Instruments are the tools to make measurements that enable new discoveries. Major advances in instrumentation have been worthy of the Nobel Prize in recent years. ACS could and should take the leadership to forge a coalition among the various analytical organization and entities to seek common grounds for cooperative ventures, including conferences and educational venues.

As technology takes a great role in the delivery of education including wireless in the classroom, we need to think about how to keep the human element in working with students. Virtual universities relying on wireless communication may become the norm in 2-3 decades - like in Africa, where the academic physical infrastructure cannot be maintained and the AIDS death rate among teachers is greater than the replacement rate. As an example, the University of South Africa already has over 100,000 students enrolled in its virtual university.

As there are challenges for education in Third World countries, there is also one on our home front. That is the welfare and education of Native Americans. There are 34 tribal colleges most located on Indian reservations West of the Mississippi. They lack physical facilities and human resources, especially to deliver STEM education. We envision ASDL as a vehicle to help in the delivery of information, especially in the environmental sciences, which is a curricular offering at all these colleges. Native Americans relate to environmental issues from their deep respect for "mother earth."

Many changes have occurred due to 9/11 and the war in Iraq. There is an election coming in November. There are important issues to be decided that will impact not only how science will be conducted but also determine policies dealing with the environment, foreign relations, social justice, civil rights and separation of church/state.

Strange things happen in times of threat and during or after catastrophic events. In WWII, persons of Japanese descent living in California, Oregon and Washington were evacuated. However, we in Idaho fortunately were not among the 120,000 Japanese Americans that were sent to "internment camps." These camps were really prisons surrounded by barbed wires and guard towers in desolate areas of the West. I remember that in the autumn of 1944 on our farm, German POWs under armed guard were picking potatoes next to young Americans of Japanese ancestry that we recruited under work-release from the camps. Strange but true – an aberration that serves as a reminder of the need to protect human rights.

Nonetheless, we live in a great and marvelous country – that has given to me, a Nisei (2nd generation Japanese American), opportunities that allow me to stand before you as a testament to what is possible. So again, I thank you all and the ACS Division of Analytical Chemistry.



# **CALL FOR PAPERS**

# 32nd FACSS / 51st ICASS

Federation of Analytical Chemistry & Spectroscopy Societies
International Conference on Analytical Sciences and Spectroscopy

October 9 – 13, 2005 Québec City Convention Center Québec City, Canada

FACSS, the Federation of Analytical Chemistry and Spectroscopy Societies, exists to combine many small meetings, previously organized by individual societies, into an annual meeting that covers the whole of analytical chemistry, with an emphasis on spectroscopy. FACSS continues its proud tradition of bringing together the leading scientists across many disciplines, for scientific exchange. In 2005, FACSS will join forces with the Canadian Society for Analytical Sciences and Spectroscopy to host the 32<sup>nd</sup> FACCS/51<sup>st</sup> ICASS meeting.

#### **Program Format**

A new format for the technical program was implemented for the 2004 meeting and will be maintained in 2005. Each day will begin with a plenary presentation by an internationally recognized speaker or FACSS award winner, and followed by the daily technical program. The 2005 program will be opened with a plenary address from Professor Richard Zare of Stanford University, entitled "Adventures in Chemical Analysis". Throughout the week there will be eight concurrent sessions within each half-day period, and each of those sessions will be composed of poster and oral presentations. The program format requires the scheduling committee to review all submitted contributions to determine their distribution amongst the spaces available for high profile poster and oral presentations. Prizes will be awarded daily for outstanding poster presentations.

Contributed original research papers are invited from all areas of analytical chemistry and spectroscopy. Cutting edge organized symposia include:

- Atomic Spectroscopy
- Bioanalytical
- Chemometrics
- Education
- Imaging
- Mass Spectrometry
- Homeland Security
- Proteomics

Beginning February 7, titles and abstracts should be submitted via the FACSS web page (http://facss.org). Submission includes a title, list of authors and their affiliations, and an abstract of ~350 words. Revisions to the abstract only will be accepted through July 31, 2005. With the new technical format providing excellent opportunities for scientific exchange, contributors are strongly encouraged to submit more than one paper. Contributed papers will be assigned to either a poster or an oral presentation format by the organizing committee. Each poster presentation will be allotted a board of 8 x 4 feet (2.4m x 1.2m) plus a narrow table to position, for example, a battery powered laptop. Each oral presentation will be allotted a total of 20 minutes.

# **CALL FOR PAPERS**

# Analytical Division Technical Program for the Washington, DC ACS Meeting

John H. Callahan, Program Chair

The Analytical Division Technical Program for the August 28-September 1 meeting in Washington, DC is now in the planning stages. The Call for Papers will be printed in C&E News in February and planned symposia are listed on the ACS Web Site (http://oasys.acs.org), as well as being listed below. Please see the information below regarding specific calls for papers. Some contributed papers will be included in the program for specific symposia based on their relevance to the topic; the symposium organizers and program chair have the final say on whether contributed paper will placed in a specific session or in a more general session. A general poster session and limited general oral sessions are being planned. Please contact symposium organizers or the program chair for more details. Abstract submission for the meeting will open February 29, 2005 and close April 28, 2005. Abstracts can be submitted through the ACS

Topic areas of interest for this meeting will include a major symposium on Sensors and Instrumentation for Counterterrorism: Detection of Chemical, Biological, Explosives and Radiation/Nuclear Threats. Both invited and contributed papers will be accepted. Other areas of interest include nonlinear optics, terahertz spectroscopy, multidimensional chromatographic methods, neutron-based analytical methods, quantification of measurement uncertainty, and supercritical fluid chromatography.

As always, suggestions regarding the program are both requested and welcomed. Your ideas about programming will be considered in upcoming planning meetings.

The following is a list of planned symposia, their organizers and the types of papers they will accept.

#### Analytical and Biological Applications of Non-linear optics (Invited and Contributed).

Invited speakers include: Sunny Xie, Yuen-Ron Shen, Geraldine Richmond, Henry Kapteyn, Paul Cremer, Heather Allen, Franz Geiger, Hongfei Wang, and Thomas Orlando Organizers: Garth J. Simpson. Department of Chemistry, Purdue University,

West Lafayette, IN 47907-1393; Ji-Xin Cheng, Department of Chemistry, Purdue University, 560 Oval Drive, West Lafayette, IN 47907

**Analytical Applications of Terahertz** Spectroscopy (Invited)

Organizer: Xi-Cheng Zhang, Center for Terahertz Research, CII 9009, Rensselaer Polytechnic Institute, 110 8th Street, Troy, NY 12180-3590

**Analytical Chemistry in Public Policy (I):** Role in State, Federal and International Regulation (Co-sponsored by the Chemical Society of Washington) (Invited)

Organizers: Alexander J. Krynitsky, Center for Food Safety and Applied Nutrition, U.S. Food and Drug Administration, 5100 Paint Branch Parkway, Room 2E-014, HFS-336, College Park, MD 20740-3835; Kim M. Morehouse, Div. of Chemistry Research and Environmental Review, FDA, Office of Food Safety, 5100 Paint Branch Parkway, College Park, MD 20740

# **General Oral and Poster Papers**

(Contributed)

Organizer: John H. Callahan, Center for Food Safety and Applied Nutrition, Food and Drug Administration, HFS717, 5100 Paint Branch Parkway, College Park, MD 20740

### **Innovative Approaches for Teaching** Analytical Chemistry (Invited)

Organizer: Patricia A. Mabrouk, Department of Chemistry and Chemical Biology, Northeastern University, Boston, MA 02115

### **Multidimensional Gas-Phase Separations** (Invited and Contributed)

Organizer: Richard Sacks, Department of Chemistry, University of Michigan, 930 N. University, Ann Arbor, MI 48109-1055

#### **Multidimensional Liquid-Phase**

**Separations** (Invited and Contributed) Organizer: Mark Schure, Rohm and Haas Company, 727 Norristown Road, Box 0904, Springhouse, PA 19477-0904

Preparing for the bright future of neutron scattering in the U.S.: State of the art in neutron-based analysis (Invited and Contributed) Cosponsored with Division of Nuclear Chemistry & Technology

Organizers: Linda J. Magid, Department of Chemistry, University of Tennessee, 552 Buehler Hall, Knoxville, TN 37996-1600; Shenda M. Baker, Department of Chemistry, Harvey Mudd College, 301 East 12th Street, Claremont, CA 91711

#### **Quantification of Measurement**

**Uncertainty** (Invited and contributed) Organizer: Thomas Vetter, Analytical Chemistry Division, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8393, Gaithersburg, MD 20899-8393

Sensors and Instrumentation for Counterterrorism (I): Chemical Agent **Detection** (Invited and Contributed)

Organizer: Greg E. Collins, Chemistry Division, Code 6112, Naval Research Laboratory, 4555 Overlook Ave., S.W, Washington, DC 20375-5342

Sensors and Instrumentation for Counterterrorism (II): Distributed Sensor Networks (Invited and Contributed)

Organizer: Susan Rose-Pehrsson, Code 6112, Naval Research Laboratory, Washington, DC 20375

Sensors and Instrumentation for Counterterrorism (III): Biological Agent **Detection** (Invited and Contributed)

Organizer: Karen L. Wahl, Pacific Northwest National Laboratory, MS P8-08, PO Box 999, Richland, WA 99352

Sensors and Instrumentation for Counterterrorism (IV): Explosives **Detection** (Invited and Contributed)

Organizer: Jehuda Yinon, Weizmann Institute of Science, Rehovot 76100 Israel

Sensors and Instrumentation for Counterterrorism (V): Detection of NUC/RAD Materials (Invited and

Contributed) Cosponsored with Division of Nuclear Chemistry & Technology Organizer: David E Hobart,

Actinide Analytical Chemistry Group, Los Alamos National Laboratory, Mail Stop G740, Los Alamos, NM 87545

# Supercritical Fluid Chromatography

(Invited and Contributed)

Organizer: Karen W. Phinney, Analytical Chemistry Division, National Institute of Standards and Technology, Chemical Science and Technology Laboratory, Gaithersburg, MD 20899

# Instrumentation for a Better Tomorrow: A Symposium in Honor of Arnold O. Beckman

by T.I. Meyer, Board on Physics and Astronomy, The National Academies

Caltech professor of chemistry John D. Roberts, Institute of Systems Biology president Leroy Hood, and Chemical Heritage Foundation president Arnold Thackray were among the distinguished scientists, engineers, and researchers who participated in a 1-day symposium on November 15, 2004 to honor famed inventor, entrepreneur, and philanthropist Arnold O. Beckman. The special event was opened by University of California, Irvine chancellor Ralph Cicerone at the Arnold and Mabel Beckman Center of the National Academies in Irvine, California. The symposium focused on the role of instrumentation in scientific research and the important influence Arnold Beckman had on the development of laboratory instrumentation. Speakers discussed the evolution of instrumentation in several fields of research and how historical trends position us for the future.

The sophistication of instrumentation in research has grown immensely since Arnold Beckman, then a professor at the California Institute of Technology, marketed his first commercially successful instrument in 1935—an electronic meter designed originally to measure the acidity of lemon juice. Today, the conduct of most research is essentially inseparable from the development and use of reliable, high-performance, and integrated research tools. Indeed. instrumentation has become so important in research that instrument development has itself become the subject of research, creating a positive feedback loop that has accelerated the pace of scientific and technological progress.

The National Academies sponsored the symposium in honor of Arnold O. Beckman, the renowned inventor and philanthropist who died earlier that year at age 104. The symposium was entitled "Instrumentation for a Better Tomorrow," and over the course of the day the symposium participants were treated to a wide-ranging and inspiring overview of the role that research

instrumentation has played—and will continue to play-in improving our lives. More than 60 people attended the symposium and were treated to special enhancements of the standing heritage exhibits (supported by the Arnold and Mabel Beckman Foundation) at the center. Beckman Coulter, Inc., set up a display featuring two modern laboratory instruments currently produced by the company that Dr. Beckman started. The Chemical Heritage Foundation provided an interactive multimedia display that chronicled several of Dr. Beckman's achievements and allowed visitors to tinker with a computersimulated version of the Dr. Beckman's DU spectrophotometer.

After introductory remarks by Wm. A. Wulf, president of the National Academy of Engineering, and a welcome from Ralph Cicerone, chancellor of the University of California at Irvine and president-elect of the National Academy of Sciences, Dr. Beckman's daughter Pat Beckman shared some personal reflections about her father's philosophy. She described the enormity of his legacy, from instrumentation and research to philanthropy, education, and raising a family.

The morning keynote address was delivered by Arnold Thackray, president of the Chemical Heritage Foundation. He discussed Arnold Beckman's intuitive grasp of the "sweet spot of opportunity," and described Dr. Beckman's life and work in terms of his inventive recklessness, his contributions to chemists' tools and the new biology, and, finally, Dr. Beckman's role in the electronics revolution.

The program then shifted to a discussion of instrumentation in different fields of research in science, engineering, and medicine. John D. Roberts, Institute Professor of Chemistry, Emeritus, at California Institute of Technology, described the evolution of nuclear magnetic resonance (NMR) and its role in analytical chemistry. As a young faculty member at MIT, the first instrument he bought was a Beckman DU spectrometer. Then, just a few years later, NMR spectrometers were introduced. "Clearly, NMR had an enormous advantage," Roberts said, "except that infrared spectroscopy is easier to understand." Leroy Hood, president of the Institute for Systems Biology, then presented a discussion of the future of molecular and system biology, arguing that research problems require interdisciplinary teams and tools and that traditional organizational structures for research programs are often inadequate to meet these challenges. Gabrielle Long, an associate director of the Advanced Photon Source at Argonne National Laboratory, described the evolution of x-ray scattering instruments from the original benchtop tools

to today's enormous national synchrotron user facilities.

A lunch keynote address was presented by Chad Mirkin, professor of chemistry at Northwestern University and a past recipient of the Young Investigator Award of the Arnold and Mabel Beckman Foundation. He detailed some of the dramatic frontiers of chemistry at the interface with nanoscale science and technology. He described how a new toolkit developed by his group at Northwestern called dip pen nanolithography provided a new regime of control over the assembly of nanostructures with profound implications for medical research.

Michael Roukes, professor of physics, applied physics, and bioengineering at California Institute of Technology, discussed the frontiers of nanotechnology and its intersection with chemistry, physics, and biology. Forensic science and technology was identified by Robert Gaensslen, head of the forensic science program at the University of Illinois at Chicago, as one of the emerging societal impacts of analytical chemical instrumentation. He described the challenges in forensics and how modern scientific tools such as the gas chromatograph, mass spectrometer, are helping to address them. T. Vincent Shankey, a clinical scientist at Beckman Coulter's Advanced Technology Center, discussed the technique of flow cytometry and its impact on diagnosing, monitoring, and understanding disease.

The symposium wrapped up with a panel discussion that included the symposium speakers and William Ballhaus, Sr., former president of Beckman Instruments, Inc. The panelists discussed the future instrumentation, highlighting themes such as education, the twilight of major industrial research labs, and the importance of interdisciplinary research to foster innovation and creativity. In general, instrumentation and research have a symbiotic relationship. Scientific and technological advances lead to new instruments, while important scientific and technological problems stimulate the development of new instruments. Instruments developed for one area of research often find application in other areas, both in the research enterprise and in the broader society.

A man of charity, wit, humility, and curiosity, Arnold O. Beckman was also a man of great strength and vision. At this symposium, participants celebrated his many legacies and they promise they hold for the future.

# Subdivision of Chromatography and Separations Chemistry (SCSC)

The SCSC welcomes 68 new members who joined this year. With your support, our membership now stands at 2003. The SCSC invites all members to become more active in promoting the development and application of separations technology. You can become more active by attending the Annual

Meeting (see below), or by contacting the Officers and members of the Executive Committee by e-mail. We are interested in making the SCSC useful and relevant to our members and other separation scientists. Please see our web site at <a href="https://www.acs-analytical.duq.edu/subdivoff.html">www.acs-analytical.duq.edu/subdivoff.html</a>.

### Annual Meeting of the SCSC

The SCSC will hold the Annual Meeting at the 2005 Pittsburgh Conference (Pittcon) on Monday, February 28, at 12:00 – 1:30 pm. The meeting will be held in room S331A in the Orange County Convention Center, which is located on the 3rd floor of the South Concourse, just above the rooms for technical sessions. The first 20 attendees will be provided a box lunch including a soft drink.

The agenda for the Annual Meeting

will include a report on the Young Investigators Award, planning topics of symposia for future ACS National Meetings, ratification of proposed changes in the Subdivision Bylaws, nomination of new Officers and of Members the Executive Committee, and new business. Anyone with an interest in chemical separations or purification is invited to attend. You do not need to be a member of the SCSC to attend; however, we may try to recruit you!

# Young Investigator Award

The ACS Division of Analytical Chemistry Award for Young Investigators in Separation Science is sponsored by Agilent Technologies. This new award was initiated in 2004 to recognize outstanding contributions to the field of separation science by a young chemist or chemical engineer. It is intended to complement the existing ACS Award in Chromatography and Award in Separation Science for established investigators. The award consists of a \$4,000 honorarium, a plaque, and a special award symposium in honor of the recipient at the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy.

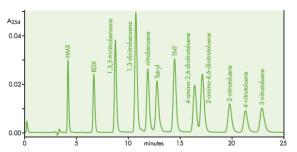
"We are delighted that Agilent is sponsoring this award. With its long history in the field, Agilent has very deep ties to the chromatographic community," said Victoria L. McGuffin, Chair of the SCSC. "Agilent's contribution will inspire young chromatographers to strive for outstanding achievement early in their careers."

Professor Andre M. Striegel (Florida State University) is the first recipient of the Young Investigator Award for his outstanding work in size exclusion chromatography. He has authored more than 20 papers and edited an ACS Symposium series volume titled "Multiple Detection in Size Exclusion Chromatography." The award symposium is scheduled at Pittcon on Thursday, March 3, 2005. Please consult the final program for details on time and location as well as the list of invited speakers and titles.

## Pacifichem Meeting

The Pacifichem meeting will be held in Honolulu, December 15 – 20, 2005. Although the SCSC is not organizing symposia for this ACS-sponsored meeting, several seem significant for separation scientists: Flow-Based Analysis: State-of-the-Art Flow Methods in Analytical Chemistry (#16), Enabling Analytical

Technologies in Proteomics (#74), Chiral Recognition (#219), Nanotechnology for Bioanalysis and Biomedical Applications (#251), Methods to Analyze Cellular Processes (#262), and Recent Development of Sensing Chemistry and Chemical Separation Systems for Innovation in Chemical Analysis (#286).



# Symposia for ACS National Meetings

For the 2005 Spring ACS National Meeting in San Diego, four symposia are planned. On Sunday, March 13, is a full-day symposium on laser and light based separations. This is an exciting area that utilizes the physics of light to achieve separations by optical trapping, dissection. momentum transfer, etc. On Monday morning, March 14, the ACS Award in Chromatography will be presented to Professor Pat Sandra (University of Ghent, Belgium). Professor Sandra has been a prolific researcher and author in gas chromatography. One significant his most accomplishments was alerting the people of Belgium to possible PCB and dioxin poisoning of poultry in 1999. On Monday afternoon, Dr. Andras Guttman has organized a halfday symposium honoring the late Professor Csaba Horvath (Yale University). Professor Horvath deserves credit for his pioneering contributions to the theory and application of high-performance liquid chromatography and, more recently, of capillary electrochromatography. Tuesday On morning, Professor Frantisec Svec (University of California, Berkeley) has organized a half-day symposium on monolithic stationary phases for liquid chromatography and capillary electrochromatography. Please plan to attend these exciting symposia!

For the 2005 Fall ACS National Meeting in Washington, DC (August

28 - September 1, 2005), the SCSC will sponsor three symposia. Professor Richard (University of Michigan) organize a half-day session on gas-phase multidimensional separations, while Dr. Mark R. Schure (Rohm and Haas Company) will complement this with a half-day session on multidimensional liquidphase separations. This comprehensive approach to two-dimensional separations is a promising means to improve peak capacity chromatography. Dr. Karen Phinney (National Institute of Standards and Technology) will organize a half-day symposium on advances supercritical fluid chromatography and extraction.

To complement these organized symposia, there will be an oral session for contributed papers on these topics. There will also be the usual poster session for contributed papers. Everyone is invited to contribute abstracts for these oral and poster sessions. Please consult the ACS website for the protocol and deadline dates.

The 2006 Spring ACS National Meeting will be held in Atlanta and the 2006 Fall ACS National Meeting in San Francisco. The SCSC invites you to suggest topics for symposia. Please send your suggestions to the Chair-Elect, Brian Bidlingmeyer (brian bidlingmeyer@agilent.com).

# SCSC Sponsors Student Symposium

An article in the December issue of Catalyst Magazine (page 209) described the above as a "unique student symposium." At first glance, it was just one of the many technical sessions held at the 2004 Fall ACS National Meeting in Philadelphia. However, this session stood out as being unusual and unique because it entirely consisted of presentations given by students. The student symposium was organized by Bidlingmeyer Technologies) and Marshall Fishman (USDA) and was co-sponsored by the Delaware Section of the ACS, the Chromatography Forum of Delaware Valley (CFDV) and the Subdivision of Chromatography and Separation Chemistry (SCSC).

"We are grateful that the SCSC could give this session a national venue. In the past, the CFDV has sponsored student symposiums at the ACS Mid-Atlantic Regional Meeting (MARM). But with the national meeting coming to our area, there was no MARM this year," Marshall stated. "It is nice to give these local students some exposure at the ACS National Meeting. This session was very well attended and all of the 10 presentations were excellent," Brian added. The CFDV gave each participating student a cash award to defer the cost of registration and travel.

It is interesting to note that the SCSC was "founded" when four interested scientists came together at lunch during an ACS National Meeting in Philadelphia to draft and organize the proposal for presentation to the Analytical Division. Those four were Drs. Cliff Scott, Sut Ahuja, John Nikelly, and Brian Bidlingmeyer. And, of course, the CFDV was organized in Philadelphia in the 1960s, and one of its founders was John Nikelly, who was recently designated as the Historian of the SCSC.

# Changes to the Division of Analytical Chemistry Balloting: TAKE 2



# Change in the balloting process for 2004

Last year our Division conducted its annual election of officers using a new balloting process. The drivers for this change were the low voter turnout (typically at 5%) and the expense of the balloting process (exceeding \$6,000) of previous elections. As a contributing factor for the low turnout, anecdotal evidence existed about ballots getting lost, which were delivered via 3rd class mail.

In the new process, those members with working e-mail addresses (about 75% of our members) received electronically the candidates' statements and the ballot. This system used the traditional ballot verification system. The members were asked to print the ballot, vote, sign, and mail the completed ballots back. For the 25% of our members with no working e-mail addresses, paper ballots were mailed to them as usual, except that the ballots were mailed via 1st class, to insure that these ballots did not get lost.

#### 2004 Election outcome

Our Division got back 359 completed ballots in the 2004 elections. While that number was within the historical range (typically 350 to 400 ballots), members receiving paper ballots voted proportionally at a rate three times higher than those members receiving the electronic ballots (192 paper ballots vs. 167 printouts of electronic ballots).

Notwithstanding the negative impact of issues such as ballot-carrying e-mails being deleted from confusion with spam messages, the lackluster participation levels was indicative that the added inconvenience of having to print the ballot did not facilitate higher participation levels. From a cost standpoint, the Division did not save appreciably from earlier years. The cost of the e-mail campaign and mailing the ballots 1<sup>st</sup> class offset any savings from mailing lower number of paper ballots.

# 2005 Election: back to the drawing board

The Executive Committee at the Fall meeting endorsed a change to a full electronic balloting process. Recently we tested a commercially available tool for electronic balloting by conducting a mock election with the Division's officers. We were all impressed, finding it friendly and convenient. One could also vote for write-in candidates, and submit comments. The tool also meets the affordability requirement. The Rubber Division of the ACS has used this tool and its members found it highly satisfactory, according to their officers.

# How the new electronic balloting will work

If the Elections and Nominations Committee of the ACS approves our use of this tool, this year each member will receive a unique voter registration code and the URL of a web site, via email or postcard (1st class mail), which will allow them to load the ballot via their web browser and make their choices. Members without a computer will be able to vote from their local libraries or Internet cafes. The members with e-mail will receive an initial email at the start of the election and a reminder (just to those who have not voted yet) midway through the election. Only those with valid codes can open the ballot, and each individual code will only work for one ballot submission. It's a simple but secure method and according to the vendor, it has worked well for tens of thousands of voters that have used this system for other organizations.

The Analytical Division wants to thank you for your interest on this subject and requests your participation in this key Division activity. We welcome your comments following the election.

The electronic balloting taskforce,

Al Ribes Sally Stafford
David Pinkston Steven Petrovic



# YCC 5K Fun Run/ 1.5 Mile Walk

at the San Diego ACS Meeting

Monday, March 14<sup>th</sup>, 6:30 a.m. - 7:30 a.m. Healthy scientists are happy scientists! Stretch your tired legs and join fellow chemists for the fourth annual Younger Chemists Committee's 5K Fun Run/1.5 Mile Walk. Anyone and everyone is encouraged to participate. Race starts at 6:30 a.m. outside of the San Diego Convention Center. Pre-Race meeting location is at the rear entrance of the Marriott. Visit the ACS national meeting website to register for the race http://www.chemistry.org/portal/a/c/s/1/ac sdisplay.html?DOC=meetings\sandiego20 05\event.html. Register by February 18th to receive a free T-Shirt! No race day registration. Cosponsored with ACS Publications Division, CMA, SOCED, and WCC.



## Call for Contributions

Contributions are solicited for the next Division of Analytical Chemistry newsletter (Summer 2005, printed edition).

Please, send your contributions (such as announcements, upcoming meeting programs, transcription of speeches of general interest to analytical chemists, pictures, etc.) or suggestions to Victor Ryzhov, the DAC newsletter editor at ryzhov@niu.edu.

# Treasurer's Report

The Division of Analytical Chemistry continues to enjoy outstanding support from our sponsors. Over 50% of the Division income is obtained from these sources. The Graduate Fellowship Program, Graduate Travel Grants, and Division Awards are just three of the programs we would not be able to offer without their generous support. I would especially like to thank those individuals that have made financial support available year after year, some-times in difficult financial environments.

I have come to the end of my six years as Treasurer and I want to thank everyone who has helped make it an enjoyable experience. I appreciate the support and endurance of my fellow officers, committee chairs, and others who have partnered with me.

Carolyn Ribes, Division Treasurer 1999-2004



Thank you, Carolyn, for the six years of hard work!





Above: At the Division Dinner in Philadelphia: Chris Enke, Chair Elect, with wife Bea Reed

# Gordon Research Conference on Analytical Chemistry

June 12 – 17, 2005 Roscoff Biological Station, Roscoff, France

Science, Technology, and Systems for Miniaturization in Analytical Chemistry

For information about topics, speakers, and registration www.grc.uri.edu/programs/2005/anachem.htm

# Special Two-Day Pre-conference for Students and Postdocs

Talks for and by graduate students and postdocs Financial assistance will be available Pre-conference application deadline: **15 March, 2005** 

Additional information and registration www.grc.uri.edu/programs/2005/gradchem.htm

# Analytical Division – Support of Symposia at Regional ACS Meetings

The Analytical Division has a speaker's fund to help support programming at the regional American Chemical Society meetings. Awards will generally be made to support a thematic symposium. Funds can be used to support travel expenses of an expert in the field who would not normally attend that particular regional meeting. It is expected that local speakers will then be

included fill out the symposium. Alternatively, funds can be requested to provide more modest levels of support to several speakers from the region. The Division will help regional planners identify possible speakers for symposia topics, if necessary. Applications for sup-port are considered on a rolling basis until the yearly allocation of funds has been expended. There is no formal application process. Anyone interested in applying for an award should contact Tom Wenzel (twenzel@bates.edu) by email to discuss the nature of the symposium and the funds that are needed to help support the program.

# Our Sponsors \$ \$ \$

#### **Division Awards:**

Waters Corporation Dow Chemical Foundation Dekker Foundation Phillip Morris Companies USA Cole-Parmer Company

#### **Graduate Fellowships:**

Eastman Chemical Johnson & Johnson Pharmaceuticals Procter and Gamble Society of Analytical Chemists of Pittsburgh GlaxoSmithKline

#### **Graduate Travel Awards:**

Pfizer Inc - Research & Development

## **Technical Symposia:**

American Chemical Society
Applied Biosystems
AG Heinze
Bristol-Myers Squibb Company
BIA Separations D.o.o.
Chiral Technologies Inc.
Dionex
National Institute of Standards
& Technology
Petroleum Research Fund
ThermoElectron Corp.

Thomas Andrew Taton

# Thank you for your generous support!