

## **President's Message**

### *Farewell, but not Good-bye*

In this final message as SEAC president, it is natural to both look back on the past two years, and look ahead for what is to come. I should start with special thanks to some of the major recent contributors to SEAC, particularly Joe Maloy for keeping everything organized, and Andy Ewing for a membership drive and initiating a SEAC directory. Joe is currently updating the membership data base and putting together a new directory and consolidating membership records. Additional thanks go to Marc Porter for organizing the 1997 Reilley Symposium and to Andy again for the 1996 Symposium. The quite visible efforts of these SEAC officers add to the many behind-the-scenes contributions of directors and members to provide useful benefits to the SEAC membership.

With regard to SEAC policies and operations, the board of directors made some substantial changes. The eligibility requirements for the Young Investigator Award were broadened, and new travel grants for graduate student attendance at Pittcon were approved. These awards are discussed by Dan Buttry elsewhere in this newsletter. Certainly SEAC appreciates the sponsorship of EG&G Princeton Applied Research for the travel grants, and the continued support of Ensmann Instruments and Bioanalytical Systems for supporting the Young Investigator and Reilley Award, respectively.

Looking ahead, there was significant interest in electronic communication for SEAC, both the possibility of an electronic newsletter, and a web site for job announcements, upcoming events, *etc.* Debra Rolison is examining options in this regard, and welcomes any suggestions. A collaboration with the European SEAC also developed during 1997, and plans were initiated for a joint SEAC/ESEAC meeting in Bonn, Germany in 2000. Joe Wang and Craig Bruntlett are on the planning committee for this event. I am sure these and many other developments will continue and mature with the capable guidance of Mark Wightman when he becomes SEAC president in July.

When considering both past and future SEAC events, it is useful to also consider the more general issue of the value of the Society as a whole. We don't spend our effort and our money on an organization solely out of duty, but mostly because we believe in the utility of the organization for furthering electroanalytical science and its practitioners. The Reilley Symposium and Award have been excellent and well attended events at Pittcon since their inception, and the Young Investigator Award has sweetened the pot. SEAC has greatly improved Pittcon as a forum for electroanalytical chemistry and a point of interaction of electroanalytical chemists. By themselves, these events more than justify the efforts of the SEAC membership and the board of directors in promoting and sustaining the Society.

*Rick McCreery*

## Editorial

It is still spring as I type this message...but just...which leads into a perfect segue from Rick's farewell message as SEAC president. I would indeed like to explore taking our societal communications even further into the realm of the electron—ultimately to establish a World Wide Web site for SEAC. The spring issue will be arriving in early summer because I am, as is everyone else, JUST TOO DAMN BUSY! Thus arises the following selfish editorial viewpoint: updating a SEAC home page with the ongoing faradaically flavored doings of the membership could \*surely\* be done in a more timely—and as-received—manner than now occurs by assembling a (quasi-) quarterly edition of *SEAC Communications*.

Over the next few months, I would like to hear from the SEAC members with respect to the pros and cons they foresee should SEAC establish a home page and publish an electronic newsletter as part of its home page. I will then include those concerns and comments in the next two issues of *SEAC Communications* (beloved archaic hard copy that it is!) to provide a forum—if so desired—to gauge the support or animosity among the members for SEAC on-line.

Some points that arose on this matter during the meeting of the SEAC Board of Directors at Pittcon '97 include:

### 1. Where should the institutional host for the SEAC home page be located?

Your current editor's home institution is a wholly owned subsidiary of the US Navy and subject to the approval restrictions imposed on all home pages tied to agencies and departments of the Federal government...so, short of the editor relocating her job...

—it has been suggested that the SEAC home page inaugurate its life as a site linked to an existing university-based departmental home page: initial suggestions include the University of North Carolina at Chapel Hill or the University of Texas at Austin.

*[...visions of dueling potentiostats dance in one's head...]*

—SEAC could establish an account for the editor with a commercial on-line provider who has links to the Web: the cost would rise as the amount of graphics we desire to support increases. The Phase I incarnation of the SEAC home page could be designed for minimal graphics and then be enhanced as needed. An electronic newsletter would eventually save SEAC the costs of printing and mailing hard copies; these savings would support the cost of a commercial account.

### 2. What should be on the home page and how much of it should be accessible to the world-wide surfing community?

—The standard information on what SEAC does and why it exists (including the programs and awards the society supports) could be made available to the world-wide community and so would act as effective advertisement for SEAC.

- it was suggested that a SEAC home page offers a continual presence to the membership of the nomination requirements and deadlines for the Reilley and the SEAC Young Investigator Awards and would make remembering when nomination packages are due less of a problem and could potentially stimulate more nomination packages to be assembled.

—Information of direct importance to members of SEAC, but which should have some measure of privacy [*e.g.*, the membership directory; job offerings; announcements to hire post-doctoral associates; *u.s.w*] could be published on a level of the home page available only by password to (dues-paying?) members.

- Any member desiring world-wide distribution of a job offering or a post-doctoral position could request placement of the information in the upper level of the SEAC home page which will not require password-keyed access by the browser.

**3. Should the experimental observations and conundria previously discussed in the pages of the SEAC newsletter be placed in a freely accessible section of the home page or keyed to membership-only access?**

—In general, any submitted information could be coded by the submitting member as to placement on the home page.

**4. Should there be an interval in which both the hard copy and electronic form of SEAC Communications co-exist before switching to an electronic-only newsletter?**

—The SEAC Board of Directors felt it would be prudent to have an e-mail reminder sent out to all SEAC members when major updates of the home page were made (such as when a new “edition” of the newsletter is posted). This will require an e-mail membership directory more thorough (and accurate) than what currently exists.

Please comment on any and all of these points. Raise new problems or pluses. Suggest solutions to potential problems. Find a high school student to design the home page! I look forward to hearing from you.

...and remember: rolison@nrl.navy.mil. Let your electrons do the walking!

*Debra Rolison*

**—PS: Societal and editorial thanks to Rick McCreery for his able leadership as SEAC President these past two years — and all hail our new President, Mark Wightman!**

---

## SEAC Cheers Its 1998 Award Winners

### **GREG SWAIN**

Since 1994, SEAC Young Investigator Greg Swain has been on the faculty at Utah State University where his research has centered on the electrochemistry of diamond and other carbon-based electrode materials. Swain received his B.A. in Chemistry in 1985 at the University of Texas at Dallas. He did his Ph.D. research with Ted Kuwana at the University of Kansas, where he worked on very high surface area carbon fibers for electrode materials. His postdoctoral experiences included work with Bruce Tartarchuk at the Space Power Institute and the Department of Chemical Engineering at Auburn University and a JSPS Fellowship to work with Kingo Itaya at Tohoku University in Japan.

### **LARRY FAULKNER**

Charles N. Reilley Awardee Larry Faulkner received his B.S. degree from Southern Methodist University in 1966 and his Ph.D. degree under the direction of Allen J. Bard at the University of Texas at Austin in 1969. He took a position as Assistant Professor at Harvard University in 1969. In 1973, he moved to the University of Illinois at Urbana-Champaign, rising rapidly through the ranks to become a Professor in 1979. After a brief return to University of Texas at Austin in 1984, he rejoined the faculty at the University of Illinois as Head of the Chemistry Department. He became Dean of the College of Liberal Arts and Sciences in 1989, and is now Provost and Vice Chancellor for Academic Affairs.

Faulkner's research interests include electrochemistry and electroanalytical chemistry; fluorescence spectroscopy and analysis; electron-, energy- and mass-transfer processes in systems of controlled chemical architecture; and chemiluminescence from electron-transfer processes. In particular, he is one of the prime developers of the field of electrogenerated chemiluminescence. He also discovered the magnetic-field effect on triplet-triplet annihilation in liquid solution. In the area of electroanalytical chemistry, he and his coworkers developed the first "cybernetic" electrochemical instrument, a completely digital unit which is now sold by Bioanalytical Systems, Inc. His more recent work has focused on the elaboration of systems with controlled chemical and structural architecture and on ultrafast electrochemistry at ultramicroelectrodes. He has written over 120 publications and presented over 200 talks. He also co-authored (with Prof. Bard) the text "Electrochemical Methods: Fundamentals and Applications", which has had a tremendous impact on the field of electrochemistry.

Professor Faulkner has received many awards, including a National Science Foundation Graduate Fellowship, the 1975 Young Authors Prize in Electrochemical Science and Technology, the U.S. DOE Award for Outstanding Scientific Achievement in Materials Chemistry in 1986, the American Chemical Society Award in Analytical Chemistry in 1992, and the Special Maria Sklodowska Curie Medal of the Polish Chemical Society in 1994. He has been elected a Fellow of both the American Association for the Advancement of Science and the Electrochemical Society, and has served on the National Science Foundation Advisory Board. He has also served as editor of the *Journal of Electroanalytical Chemistry* and a Divisional Editor for the *Journal of the Electrochemical Society* and has served as Vice-President and President of that Society.







---

## **International Kudos to SEAC member Petr Zuman**

Petr Zuman, Distinguished Emeritus Research Professor of Clarkson University, has been feted over the recent past with numerous honors in celebration of his career in electroanalytical chemistry. These

---

## Plan your research accordingly! Call for Papers for ACS Meeting, Dallas

Henry White (University of Utah; white@atlas.chem.utah.edu) and Debra Rolison (Naval Research Laboratory; rolison@nrl.navy.mil) wish to announce they have unfortunately now remembered the rigors of symposium organization but nonetheless are still stuck organizing the following:

Call for Papers: SYMPOSIUM ON ELECTROCHEMICAL SURFACE SCIENCE:  
*ELECTROCHEMISTRY AT NANOSTRUCTURED MATERIALS*  
215<sup>th</sup> Meeting of the American Chemical Society  
Dallas TX, 29 March-2 April 1998

Sponsored by the Division of Colloid Science;  
co-sponsored by the Division of Physical Chemistry

ORGANIZERS: Debra R. Rolison	Henry S. White
Surface Chemistry Branch; Code 6170	Department of Chemistry
Naval Research Laboratory	University of Utah
Washington, DC 20375	Salt Lake City, UT 84112
202-767-3617 FAX: 202-767-3321	801-585-6256 FAX: 801-585-3207
E-mail: rolison@nrl.navy.mil	E-mail: white@atlas.chem.utah.edu

This symposium will address fundamental and applied issues in the study of electrochemical phenomena on the nanometer scale. Papers are desired on topics that include but are not restricted to: (1) the use of electrochemistry to fabricate and characterize nanostructured materials; (2) the discovery of new chemical and electrochemical processes (and insights into old ones) as realized by the synthesis of nanostructured materials; (3) electroanalysis in nanoscale domains; (4) fundamental aspects of electron-transfer and mass-transfer mechanisms unique to electrochemistry on the nanometer scale; and (5) the development of understanding into the behavior and stability of nanostructures under high rate conditions characteristic of electrocatalysis and under use in power sources. Please send abstracts on standard ACS camera-ready forms by 8 December 1997 to Henry S. White.

***...Be there. Think big about small.***

---

## Special Exclusive Report!

As advertised in the last issue of *SEAC Communications*, Professor Robert A. Osteryoung, currently Head of the Department of Chemistry, North Carolina State University and SEAC's 1987 Reilley Award winner celebrated his 70<sup>th</sup> birthday on 20 January 1997. As part of the festivities honoring the man and his science, a symposium was held on Friday, 24 January 1997 in Raleigh, NC with invited speakers, a contributed poster session, and a dinner that evening. Details (if not a video) of the grand event were promised. We are happy to report that Rich Carlin, a speaker at the symposium (and *incognito* roving reporter stringing for *SEAC Communications*), has noted the following for electrochemical posterity:

### HAPPY BIRTHDAY TO ROBERT A. OSTERYOUNG ON HIS 70<sup>TH</sup> BIRTHDAY

by Richard T. Carlin—Address: TBA

Earlier this year an illustrious group of friends and colleagues gathered in Raleigh, North Carolina to celebrate the 70<sup>th</sup> Birthday of Prof. Robert A. Osteryoung. The festivities extended over two days and consisted of a Symposium on January 24<sup>th</sup> and a Birthday Bash on the 25<sup>th</sup>. Janet Osteryoung and Michelle Clark successfully managed to organize the entire event without Robert's knowledge, up until a not-to-be-named good friend called him and apologized for not being able to attend! Even so, in keeping with the secretive nature of the event, the participants began slipping into town throughout the week and gathered in scattered groups around the Raleigh area. This reporter managed to explore a couple of the City Market pubs with some of Robert's Buffalo "offspring"—Tom Zawodzinski and Francisco Uribe, both at Los Alamos National Laboratory now, and Paul Trulove, now at the Naval Academy. Many old friends crossed paths at other locations, particularly the airport, as participants arrived from throughout the U.S. and even from across the Atlantic.

The unofficial celebration actually began with a "Tea Time" at Mitch's on Thursday afternoon. Many of the visiting partakers had actually spent the day doing science-related business—Zbigniew Stojek (just in from Warsaw) and Tom Z. gave seminars on campus, while Hugh De Long from AFOSR did that Program Officer thing. Janet O. managed to fly into Raleigh in time for this traditionally Osteryoung event.

The official event kicked-off Friday morning with a Symposium held at the NCSU McKimmon Center. (A list of the speakers and their presentations can be found below.) For the most part, the speakers were arranged according to when they had the good fortune to first cross paths—perhaps swords at times—with Robert. Howard Reiss, Milton Blander, and Fred Anson became lifelong friends while Robert was working at Rockwell International and serving as a Visiting Associate in Chemistry at Caltech from 1959 to 1968. Apparently, they used helicopters at Rockwell to get from site to site; this might explain Robert's penchant for solid, safe Volvos as the preferred mode of transportation around town now. Al Meyers and Gary Maciel worked with Robert when he was Professor and Chairman at Colorado State University from 1968 to 1978. Robert actually wooed Al away from Wayne State to the rarefied air of Colorado which immediately agreed with Al's early experiments on asymmetric organic syntheses. Frank Bright became a superb addition to the Osteryoung Tea Time and to the SUNY/Buffalo Chemistry Department while Robert was a Leading Professor at that institution from 1979 to 1992. I became one of the Osteryoung offspring during Robert's Buffalo days, and he hasn't been able to shake me yet. Finally, Royce Murray, while a colleague for many years, represented Robert's latest move to North Carolina State University in 1992, where he is now Professor and Head.

A reception followed the symposium where participants gathered to relax and peruse a number of posters from students, post-docs, and faculty. Among the many visitors and NCSU departments members at the receptions were Graham Cheek, Bob Gale, Joan Fuller, Carolyn and Al Ribes, Kazimierz Wikel, Katsumi Niki, Sam Kounaves, Ed Bowden, and of course John O'Dea and Maggie Ciszowska. Following the reception, the speakers, their spouses, and a few extras were wined and dined at Cafe Luna, where the group was also joined by Anne, Adam, Sue, and Kathy—the real Osteryoung family offspring. The food, drink, and conversation were excellent with Dennis Evans providing expert wine lessons at one end of the table. While the speakers were being treated to a superb

dinner, a Polish birthday party was warming-up at Maggie Ciszowska's home. So, following the speakers' dinner, the revelers carpooled to Maggie's party, now in full swing, to give Robert another birthday cake and song for the week. With the number of Polish friends in attendance, this North Carolina gathering began to look suspiciously like a classic Buffalo party.

The following evening, the real Birthday Bash was held at the Osteryoung home. The food was a splendid catered selection to suit every taste, while the beverages were culled from the Osteryoung wine cellar and beer selections. For the fashion conscious, the dress ranged from coats and ties to T-shirts and jeans, the latter being more prevalent among the Buffalo-derived Osteryoung offspring; however, Ziggy Stojek was probably the most dapper of the crowd with near-tuxedo wear. As Janet O. had predicted, a serious (albeit not fatal) dent was made in the wine collection as everybody celebrated into the evening and did a good deal of catching-up with old friends. As the crowd began to thin, the music prodded a few remaining partiers, including the birthday boy, to a few late evening dances. Finally, as the time approached midnight the final stragglers departed, marking the end of a thoroughly enjoyable birthday celebration.

All the participants want to express their thanks to Michelle Clark, Cynthia Martin, Janet Osteryoung, and the other Osteryoung group members that helped put together this gala event. And of course, Happy Birthday and Congratulations to Robert Osteryoung. We are only left with one question for Robert—how are you going to top this on your 80<sup>th</sup>!?

**SPEAKER LIST FOR THE SYMPOSIUM IN HONOR OF ROBERT A. OSTERYOUNG ON THE OCCASION OF HIS 70<sup>TH</sup> BIRTHDAY**

Howard Reiss, *University of California, Los Angeles*—CONFIGURAL ENTROPY: UNCERTAINTY IN COORDINATE SPACE

Milton Blander, *Argonne National Laboratory*—CONFORMAL IONIC SOLUTION THEORIES

Albert Meyers, *Colorado State University*—ASYMMETRIC SYNTHESIS

Gary Maciel, *Colorado State University*—THE BEHAVIORS OF POLLUTANTS IN SOIL SYSTEMS, AS STUDIED BY NMR

Fred Anson, *California Institute of Technology*—FORTY YEARS OF REACTANT ADSORPTION ON ELECTRODES: FROM CHRONOCOULOMETRY TO ELECTROCATALYSIS

Frank Bright, *State University of New York at Buffalo*—TOWARD HIGH-SPEED BIOSENSORS AND BIOSENSORS ARRAYS

Royce Murray, *University of North Carolina*—CHARGE TRANSPORT IN MOLECULAR MELTS

Richard Carlin, Address: *TBA*—MOLTEN SALTS: A VISIONARY PERSPECTIVE

~~~~~

**...Set your watches now for RAO's 80<sup>th</sup> Birthday Bash...**

And special thanks to Rich Carlin for recounting the action for those SEAC members who couldn't be in Raleigh in January. Next issue, Rich will update for us that mysterious TBA address.

---

## From the (E-)Mailbag

**—In a comment on last issue's reminder that electroanalytical chemistry is what electroanalytical chemists do—**

In message Mon, 24 Feb 1997 15:19:47 -0500, Anna M. Farrenkopf writes:

Dr. Rolison—Greetings from LEFT field. We students here in Lewes, Delaware look forward to our *SEAC Communications*. They are always entertaining to read. Welcome to the editorial pages. In the interests of "crosstalk", we here in Lewes are oceanographers and marine chemists. We do solid state Au/Hg amalgam microelectrode analyses in sediments (millimeter resolution). And we do differential pulse polarography and cathodic stripping square wave voltammetry with hanging mercury drop electrodes in aqueous high ionic strength samples (seawater)!

We are "redox" chemists interested in sub-oxic diagenesis as well as precursors to volatile sulfur compounds (AVS) and pyrite formation.

I recently defended my dissertation contrasting iodate/iodide speciation in the Pacific Ocean and the Arabian Sea. The oxygen minimum zone of the Arabian Sea has proven to be a very exciting location to study non-sulfidic, low oxygen environments (at least from an electrochemist's perspective).

In answer to "who reads the bulletin", the answer in our case, OCEANOGRAPHERS read SEAC.

Looking forward to upcoming issues. Cheers.

Anna Farrenkopf  
College of Marine Studies  
Lewes DE 19958  
afarren@Udel.edu

**...and to save a rush to dictionaries everywhere (except Lewes, DE):** diagenesis—the process of physical and chemical change in deposited sediment during its conversion to rock.

**—In a comment on last issue's musings on the quality of big vs. small scientific meetings—**

In message Mon, 3 Mar 1997 17:50:18 -0500 , Harry Finklea writes:

Debra, I have taken advantage of your new editorship of the SEAC newsletter to get your EMAIL and put you on my personal address list. Congratulations (I think)!

Just a comment on the subject broached in Pittcon Envy. Small and select scientific meetings do encourage excellent discussions. I am certainly for that format, but I do not want to abolish the large meeting format. The large meeting provides an opportunity for the outsider to find out what the critical issues are in an area unfamiliar to the outsider. The small discussion group tends to discourage participation by the outsider.

The real problem with a large meeting is the plethora of talks one feels obliged to attend simply to keep an eye on the competition. Perhaps one could organize presentations at large conferences designed to give a perspective to the adventurous, intelligent, but ignorant outsider.

Regards.

Harry O. Finklea  
Department of Chemistry  
West Virginia University  
Morgantown, WV 26506  
FINKLEA@WVNVM.WVNET.EDU

—I agree with Harry that one still needs to eavesdrop on well-organized presentations or tutorials in new fields to stay up-to-date, but many opportunities exist to do that—how can (or can) the quality of discussion at professional meetings be improved? If the big meetings are useful to keep an eye on the competition (and to advertise one's own position) with precious little time for communal discussion, why not go to virtual meetings where videotapes are sent to advertise one's research followed by downloading everyone else's videotapes to check out the competition? I know there has been more than one scientific presentation at which I would have given much for a fast-forward button! [this ignores for argument's sake the importance of the private lunch/dinner/coffee/martini discussions critical for one's professional health and education] How can middle ground be fostered for more public discussion at professional society meetings? And does anyone really care??

**—Subject: electrochemical characterization of catalyst materials—**

In message Wed, 19 Mar 1997 07:51:20 -0500, Emory S De Castro writes:

Dr. Rolison: I read in the March 97 SEAC newsletter that you participated in a symposium on "Electrochemical Characterization of Catalyst Materials." I'm sorry I did not know about the session and thus did not attend, for at E-TEK we have several programs attempting to do just that. E-TEK provides noble metal catalysts and gas diffusion electrodes to the electrochemical community.

Would it be possible to obtain a copy of your abstract and/or talk (with Swider)? We are most interested in the characterization of catalysts of relevance in hydrogen/oxygen and direct methanol fuel cells. The SEAC note also mentions talks by Mukerjee/McBreen, Reddington/Mallouk, and Smotkin/Pu/Ley. Do you have any information on their talks, or how I can contact the organizer, Cindy Lundgren?

Emory S. De Castro, Ph.D  
Technical Director  
E-TEK, Inc.  
6 Mercer Road  
Natick, MA 01908-1028  
Emory\_S\_De\_Castro@compuserve.com

**—my reprints are in the mail...contact Cindy at:** lundgrca@esvax.dnet.dupont.com

**—and in a telling example of why SEAC needs more timely dispersal of information sent in by the members—**

In message Fri, 21 Feb 1997 10:20:14 -0600, Mike Scott writes:

Debra: Greetings. My name is Mike Scott. I am in the HR Department of Bioanalytical Systems, Inc. in West Lafayette, IN. Please publish the following employment ad in the next SEAC Newsletter.

**ELECTROCHEMISTRY SALES CONSULTANT**

The EC Division of Bioanalytical Systems, Inc. is expanding its sales efforts and is searching for a sales consultant. Our products and services are sold to industrial, academic, and government laboratories worldwide. This position is based in our West Lafayette office and involves both direct customer interaction (correspondence, telemarketing, exhibitions, demonstrations, etc.) and occasional laboratory work (evaluate customer samples, develop short application notes, evaluate new products, etc.). A B.S. or M.S. in chemistry or related field, some sales experience, and knowledge of electroanalytical techniques such as polarography or cyclic voltammetry are required. Applicants should submit a

resume, including references and salary requirements to: Recruiting Department - ES, Bioanalytical Systems, Inc., 2701 Kent Avenue, West Lafayette, IN 47906. NO CALLS PLEASE. EOE/AA