



At the Interface of Science and Engineering



AMERICAN CHEMICAL SOCIETY

SS&T NEWSLETTER

August 8, 1999

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Chair's Message

Exciting Changes Implemented

by Ken Nash

It has become the tradition of this Subdivision for the Chair to use the Summer newsletter to say "au revoir," to thank all of those who helped keep the organization moving forward, and to wish the best of luck to those who will carry on the effort in the coming years, and I will not break with this tradition. But first, I'd like to recap for the Subdivision's membership a few of the changes that we have put into place during this calendar year. First of all, you'll notice on the letterhead of this Newsletter that we've designed a logo for the Subdivision that we hope will be useful in furthering the image and visibility of the Subdivision within the ACS and the separations community. The basic design is the result of a discussion between Andy Bond, Dale Ensor, and myself following a mandate from the SS&T Executive Committee in Anaheim to come up with a logo for our Subdivision. After a preliminary wrangling over which "separations techniques" should be represented on the logo, we settled on a generic symbol familiar to both chemists and engineers. To highlight the multidisciplinary nature of separations, we have acknowledged an equal partnership between engineering and science, for the two must go hand-in-hand. Finally, we indulged the scientists'/engineers' affinity for puns in referring to the all important interface between science and engineering. We have created both a color version (check it out on the

website) and the gray scale tones shown above. Your comments (yea or nay) will be welcomed by any of the names on this masthead, and adjustments are certainly possible.

Secondly, we have developed a website for the Subdivision, which is described elsewhere in this newsletter. Our current Subdivision Membership Chair, David Rockstraw of New Mexico State University, is the webmaster. We will use this website to keep you informed about the goings-on of the Subdivision. Once again, we invite your comment and hope that you will find this addition a useful resource for keeping up with what's happening in the field and in the Subdivision. If you have information you think would be of interest to the Subdivision's members, contact David Rockstraw (drockstr@nmsu.edu).

Finally, I should note that with these changes, the primary focus of your Subdivision hasn't changed. The officers and Executive Committee remain committed to providing topical symposia that appeal to the broad spectrum of interests represented by our members. You'll notice in this newsletter that we have developed a diverse program for the San Francisco meeting in the Spring. We are working toward a similarly stimulating agenda for San Diego in 2001. In the upcoming New Orleans meeting, we are cosponsoring a symposium on the "First Accomplishments of the DOE Environmental Management Science Program." Though the new science targets the problems of the cleanup of

Continued on Page 6

Candidates for Vice Chair-Elect, 2000

Dr. Kent D. Abney

Chemical Science and Technology Division
Los Alamos National Laboratory

Biographical: Dr. Abney is a Research Chemist in the Nuclear and Radiochemistry Group within the Chemical Science and Technology Division at Los Alamos National Laboratory. He earned his B.A. degree in Chemistry from Ball State University in 1981 and his Ph.D. in Inorganic Chemistry from Colorado State University in 1986. He moved to Los Alamos in 1986 as a postdoctoral fellow and became a permanent staff member in 1989. His research interests during the past 13 years at Los Alamos have included numerous separation methods for the actinides and fission products. These investigations include the fluorination and gas phase separation of the actinides using O_2F_2 and KrF_2 , the synthesis and characterization of new ion exchange and solvent extraction methods for cesium and strontium, the evaluation of commercial and experimental resins for extraction chromatography of plutonium and americium, and the elucidation of the ionic strength effects upon uranium separation from a variety of production process feed streams. More recently he has begun the investigation of facilitated transport on inorganic membranes in aqueous streams for nuclear waste treatment. He has been a member of the ACS for 17 years and a member of the I&EC Division and SS&T Subdivision since 1995. In 1996 and 1997 he served as both Secretary and Treasurer of the SS&T Subdivision and in 1998 he completed his term as Secretary. This year he continues to serve as an At-Large Executive Committee Member and as a member of the Programming Committee. In addition to the I&EC Division he is also a member of the Inorganic, Nuclear, and Fluorine Divisions. Dr. Abney has published extensively in the area of separation science, actinide science, and inorganic chemistry with nearly 35 publications and three patents.

Candidate's Statement: The SS&T Subdivision and I&EC Division sponsored symposia continue to be an excellent avenue for federal government (DOE and EPA) scientists and engineers and university scientists and engineers to advance the area of separation science in a number of technological arenas. Each year the Subdivision in particular continues to grow in membership and to heavily dominate the Division's programming. Likewise, we also continue to cosponsor a number of important symposia with other divisions such as the Nuclear and Environmental Divisions. In addition to strong programs in engineering and chemistry, material science, polymer science, inorganic chemistry, actinide science, and radiochemistry are also represented. The Subdivision and Division are not, however, without challenges. Both hope to play a large role in defining the needs for the 21st Century in terms of environmentally benign science. We also continue to be plagued by a dearth of industrial and AIChE members and their contribution to the Subdivision. Likewise, as new students enter their postgraduate training in either science or engineering most are unaware of the Subdivision and its attempts to cross the breach between fundamental and applied programs. Thus, through the Subdivision and our colleagues we must redouble our efforts to raise the awareness of our outstanding contributions to the area of environmental remediation, waste minimization, advanced chemical processing, and technology development.

Dr. Aravamudan (Amudhu) S. Gopalan

Department of Chemistry and Biochemistry
New Mexico State University

Biographical: Amudhu Gopalan earned his B.S and M.S. degrees in Chemistry from the University of Madras, India. Subsequently, he obtained his Ph.D. in organic chemistry from the Ohio State University in 1980. He was a postdoctoral associate first at Stanford University and then at the University of Wisconsin, Madison. After a brief stint at SRI international, he joined New Mexico State University in 1985 and held a joint appointment between the Department of Chemistry and the Plant Genetic Engineering Laboratory. Currently, he is an Associate Professor in the Department of Chemistry and Biochemistry, New Mexico State University, Las Cruces, NM. Dr. Gopalan's research interests are in the area of radioactive waste remediation (development of selective chelating systems for actinide separations/bioorganic chemistry and synthetic organic chemistry). He has collaborated for several years with scientists in Los Alamos National Laboratory in the area of actinide chelation and now also has joint research projects with Sandia National Laboratory and Argonne National Laboratory. Recently, he coorganized a symposium with Drs. Gregg Lumetta and Robin Rogers on "Calixarenes for Separations," and a book based on the proceedings of this conference is in preparation.

Candidate's Statement: I am honored to be a candidate for the Vice Chair-Elect position of the SS&T Subdivision of I&EC. Over the years, my research interests in the area of actinide separations and remediation has brought me close to several members of this Division and I have had the opportunity to participate and enjoy several symposia organized by this Subdivision. Undoubtedly, this a very active Subdivision with high quality programming that appeals to a broad range of scientists that belong to academia, industries, and national laboratories. My first goal will be to continue the high quality of programming of this Division. In addition to topics in the area of metal ion separations and radioactive waste remediation, I hope to regularly encourage symposia that cover bioseparations and industrial separations from analytical, synthetic/manufacturing and green chemistry standpoints. Strategies for the separation and characterization of compound libraries produced by the increasingly popular combinatorial methods is also an area of broad appeal. I believe the Division programming must include discussions on nascent technologies/chemistry pertinent to the separations area as well as reports on applications of industrial and commercial interest. It is important that our Division remains in the forefront of advancing technologies and shows dynamism, flexibility, and timeliness in its programming. Simultaneously, I believe it is important to improve the quality of our poster sessions and use it to stimulate greater interactions between our members. My second goal will be to increase the membership of the Division by attracting more academic and industrial scientists to our programs. We must take advantage of the fact that very few divisions of the ACS bring together such a broad array of academicians, industrial chemists, and engineers together under the same roof. This Division provides a great platform for stimulating multidisciplinary discussions and collaborations so vital to solving 'real problems' of interest to our industries and nation. We must attract leading scientists and engineers to participate in our programming and continue to vigorously publicize the activities of our Division. If elected, it will be my pleasure to work with the current officers to mobilize support for our Division and help it remain vibrant and help it meet the needs of our members and the chemical community at large.

Candidate for Secretary, 2000 (This Position is Uncontested)

Dr. Rebecca M. Chamberlin

Nuclear and Radiochemistry Group

Los Alamos National Laboratory

Biographical: Dr. Chamberlin is a Technical Staff Member in the Nuclear and Radiochemistry Group (CST-11) at Los Alamos National Laboratory. She received a B.A. degree in Chemistry at Pomona College in 1988, and a Ph.D. in Inorganic Chemistry at Cornell University in 1993. She was a National Science Foundation Graduate Fellow at Cornell (1988-1991), and a LANL Director's Postdoctoral Fellow from 1993-1995. A member of SS&T since 1994, she is coorganizing the symposium "Molecular-Level Characterization of Separations" for the 2000 San Francisco ACS Meeting. Her research interests are based on broadly applying her formal training in inorganic chemistry toward separations and radiochemical analysis for programs in nuclear materials processing, nuclear nonproliferation, and environmental management. Current projects include synthesis and evaluation of new materials for aqueous separations, mechanistic studies of the evolving radionuclide speciation in alkaline nuclear tank wastes, and rapid ultrasensitive radiochemical separations for nuclear treaty verification.

Candidate's Statement: One of the remarkable things about a small subdivision like Separation Science and Technology is that younger scientists like me can contribute to the Subdivision's programming and leadership. So it's ironic that many of us were unaware of SS&T until after we finished our education. I'm interested in reaching out to divisions such as Inorganic, Organic, and Nuclear, to make sure that students and postdocs who are doing separations research are aware of the great programming we have in SS&T. I would also like to help make the new, improved SS&T website (<http://membership.acs.org/sst/default.htm>) a resource that we all turn to for information on programming, elections, professional contacts, job opportunities, other meetings of interest, and reference material on separations. I will be seeking your input!

SS&T Programming at the 218th ACS National Meeting, August 22-26, 1999 New Orleans, LA

First Accomplishments of the U. S. DOE Environmental Management Science Program

The Separation Science and Technology Subdivision is cosponsoring the Division of Nuclear Chemistry and Technology symposium entitled "First Accomplishments of the Environmental Management Science Program" at the 1999 Fall National ACS Meeting. Many EMSP principal investigators, coinvestigators, program managers, and advisors are scheduled to present their work. Participants are expected from many ACS divisions and papers span all areas of chemistry related to environmental management funded by the EMSP program. The symposium will commence Sunday, August 22 with plenary lectures and tutorials on key Department of Energy environmental management problems. Organized by Dr. P. Gary Eller, Los Alamos National Laboratory; Ph. 505-667-7111; Fax 505-665-4459; email p_gary_eller@lanl.gov and Dr. William Heineman, University of Cincinnati; Ph. 513-556-9210; Fax 513-556-9239; email william.heineman@uc.edu.

Division of Industrial and Engineering Chemistry Sessions in New Orleans

Applications of NMR to Complex Systems. Sunday-Thursday, Cosponsored with GEOC.

Analytical and Safety Issues in Olefins Units. Monday. Organized by W. Henstock, N. Akmal, and A. M. Usmani.

Issues Facing Women Professionals. Monday-Tuesday. Organized by D. Carter and M. Lesko.

Green Chemistry: Environmentally Benign Syntheses. Tuesday. Organized by J. Warner and T. C. Williamson.

Emerging Technologies: Waste Management in the 21st Century. Wednesday-Thursday. Organized by D. Tedder.

I&EC General Poster Session. Sunday evening and Sci-Mix Monday evening. Organized by A. H. Bond.

Other 1999 SS&T Sponsored Conferences and Symposia

CHEMICAL RECOGNITION PHENOMENA IN SEPARATIONS

October 18-20, 1999 in Knoxville, TN

This exciting program features 20 papers on new materials and extractants for recognition of ions, the role of molecular modeling in separations, analytical applications, structural aspects, speciation, self-assembly, chromatography, electrophoresis, and separation of organic compounds. More details and information on registration are given on the SERMACS (website <http://www.sermacs99.org/>).

Organizers

Bruce Moyer Oak Ridge Nat'l Lab moyerba@ornl.gov 423-574-6718	Spiro Alexandratos Univ. of Tennessee-Knoxville alexsd@utk.edu 423-974-3399	Jeff Bryan Oak Ridge Nat'l Lab bryanjc@ornl.gov 423-574-5018	Rick Sachleben Oak Ridge Nat'l Lab sachlebenra@ornl.gov 423-576-2048
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11th Symposium on Separation Science and Technology for Energy Applications

October 18-21, 1999 in Gatlinburg, TN

This is the 11th symposium in this series, and all have been both productive and informative. The timing of the symposium is chosen to correspond to the time at which the Fall color change is most beautiful; however, nature can't be controlled. Oral sessions include: *solvent extraction, adsorption and ion exchange, membrane separations, separations from dilute solutions, and separations to solve DOE problems*. The Monday evening poster session will be a highlight of the conference. All full papers will be submitted to the journal *Separation Science and Technology* for peer review and consideration for publication in a proceedings issue. A workshop is being planned just after the symposium by the DOE/OIT to prepare a road map for selected separation needs in industry. Contact Jack S. Watson at watsonjs@ornl.gov for more information.

SS&T Programming for San Francisco, CA, March 26-30, 2000

SS&T Award Symposium Sponsored by IBC Advanced Technologies, Inc. and Millipore Corp. Organizers to be determined.

Field-Enhanced Separations. James A. Ritter, Department of Chemical Engineering, Swearingen Engineering Center, University of South Carolina, Columbia, SC 29208; Ph. 803-777-3590; Fax 803-777-8265; email ritter@enr.sc.edu, David A. Rockstraw, Department of Chemical Engineering, New Mexico State University; MSC 3805, P. O. Box 30001, Las Cruces, NM 88003-8001; Ph. 505-646-7705; Fax 505-646-7706; email drockstr@nmsu.edu, and Kim Williams, Department of Chemistry and Geochemistry, Colorado School of Mines, Golden, CO 80401; Ph. 303-273-3629; Fax 303-273-3629; email krwillia@mines.edu.

Molecular Level Characterization of Separations. See call for papers below.

Activated Carbon Separations Symposium. Session Chairs: David A. Rockstraw, New Mexico State University, Chemical Engineering Department, Box 30001, MSC 3805, Las Cruces, NM 88003; Ph. 505-646-7705; Fax: 505-646-7706; email drockstr@nmsu.edu, Frank Derbyshire,

University of Kentucky, Center for Applied Energy Research, 2540 Research Park Drive, Lexington, KY 40511-8410; Ph. 606-257-0306; Fax 606-257-0220; email derbyshire@alpha.caer.uky.edu, Marit Jagtoyen, Center for Applied Energy Research, 2540 Research Park Drive, Lexington, KY 40511-8410; Ph. 606-257-0213; Fax 606-257-0220; email jagtoyen@caer.uky.edu, and Christopher A. Toles, U. S. Department of Agriculture, Southern Regional Research Center, 1100 R. E. Lee Blvd., New Orleans, LA 70124; Ph. 504-286-4223; Fax 504-286-4419; email ctoles@nola.srrc.usda.gov.

Sessions on activated carbon separations will include discussions of the use of novel feedstock materials, unique manufacture techniques, the physical properties of the resulting materials, and the separation isotherms of activated carbons generated by these techniques.

Equilibrium Modeling of Solution Speciation in Separations. See call for papers below.

Applications of Molecular Mechanics to Metal Complexes. See call for papers below.

High Level Waste Salt Alternative Separation Programs. See call for papers below.

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AMERICAN CHEMICAL SOCIETY
DIVISION OF INDUSTRIAL AND ENGINEERING CHEMISTRY
SUBDIVISION OF SEPARATION SCIENCE AND TECHNOLOGY

Election Ballot

Vice Chair-Elect

Choose 1

Kent D. Abney []

Aravamudan (Amudhu) S. Gopalan []

Secretary

Choose 1

Rebecca M. Chamberlin []

[]

Write-in Candidate

Instructions: All members and affiliates are eligible to vote. *Mark your selection clearly, insert the ballot into the smaller of the enclosed envelopes and seal, place the smaller envelope inside the addressed return envelope, sign the return envelope in the upper left corner or on the back, apply postage, and mail.* Improperly completed ballots cannot be tallied. Please return by November 1. International mail must be placed in an envelope.

Chair's Message, Continued from Page 1:

the DOE weapons complex, the development of new information within this program has potential for broad applicability in society. Come on down to New Orleans to participate in this symposium, and to see the Subdivision's new poster at the I&EC poster session (with thanks to Dale Ensor).

Now for the Thank You's. I must first acknowledge the great foundation laid by all of my predecessors in this position. An excellent organization helps to make the running of the Subdivision a comparatively easy task. Next I must express my appreciation to the current Executive and Program Committee members. They came to the annual business meeting well armed with ideas and concepts for future directions the Subdivision should take. These ideas (and those from the membership) are critical to the long-term health of this organization. Personal kudos are due to Gordon Jarvinen as the current Program Chair and Chair-Elect of the Subdivision for developing the technical program for the next few national meetings, to Gregg Lumetta who stepped from the frying pan of the Membership Chair into the fire that sometimes is the Treasurer's office, to Andy Bond for handling the often thankless task of Subdivision Secretary, to David Rockstraw for simultaneously jumping into the Membership Chair frying pan and setting up the website, and finally to Doug Way for handling the obligation of finding the next slate of officers. I have found this year (not yet completed) to be an enjoyable period, largely because of the folks mentioned above. I strongly encourage those of you who think you might have something to offer to speak up and volunteer to join the officers and Executive Committee members in keeping the Subdivision advancing toward the 21st century.

Online Abstract Submission for ACS Meetings is Here!

The ACS has made available the OASys system for online submission of abstracts. This new abstract submittal system was successfully used for the Fall 1999 National ACS Meeting in New Orleans, LA. Authors still retain the option of submitting hard copies, although session chairs have been strongly urged to request electronic versions. Authors can submit text and graphics in a variety of formats, preview their submittals on the Web, edit, and receive instant confirmation that their abstracts have been received and placed in the appropriate session. An abstract written in any of the standard word processing packages is acceptable. The OASys system can be accessed through the ACS website at the URL <https://www.acs.org/meetings/abstract/oasys1.htm>.

Separations Science and Technology Goes On-Line!

by David Rockstraw

The prototype SS&T website can be viewed at <http://membership.acs.org/s/sst/default.htm>. The site is intended to be a communications tool for Subdivision members, providing: (1) contact information for current officers and members who wish to be listed, (2) access to past and present newsletters, (3) a page of separations-related URL addresses, (4) an on-line membership application (in progress), and (5) SS&T programming information about past, present, and future programming events sponsored by the Subdivision. Though the page is still under development, please browse this site and provide the webmaster with your comments.

11th International Conference on Partitioning in Aqueous Two-Phase Systems

by Robin Rogers

The 11th International Aqueous Two-Phase Partitioning conference was held June 27-July 2 in Gulf Shores, Alabama. The conference, generously supported by the Separations Science & Technology Subdivision, was very successful with 17 countries represented and 24 students in attendance. Scientifically, the conference was well balanced with 98 presentations: 52 oral and 46 posters. One of the highlights of the meeting was a panel discussion on Sunday evening which highlighted the differences and similarities of a variety of separations technologies which utilize water soluble polymers. The conference outing to Mobile and Bellangrath Gardens allowed our foreign visitors to get some of the flavor and history of south Alabama. The conference banquet was held poolside by the beach at a new condominium complex, the Beach Club Resort. The latter culminated in the singing of the 11th ATPS Conference Song written by Göte Johansson on his selection as the 1999 Biennial ATPS Awardee. Three conference awards were presented: The 1999 Biennial Aqueous Two Phase Partitioning Award, for outstanding contributions to the practice and understanding of partitioning in Aqueous Two-Phase Systems, went to Professor Göte Johansson of the Department of Biochemistry at Lund University in Sweden. The 1999 Biennial Aqueous Two Phase Partitioning Student Oral Presentation Award went to Kristina Berggren of the Department of Biochemistry at Lund University in Sweden. Runners-up included Daniel T. Kamei (Massachusetts Institute of Technology), Josefine Persson (Lund University), and Irene Barinaga-Rementería Ramírez (Lund University). The 1999 Biennial Aqueous Two Phase Partitioning Student Poster Presentation Award went to Sheryl Fernandes of the Department of Biotechnology at Lund University in Sweden. Runners-up included Grant A. Broker (The University of Alabama) and Marika Murto (Lund University). The conference website is URL: <http://bama.ua.edu/~rdrogers/aq2phase/11thconf.html> and contains the final program, abstracts, awards, sponsor list, and even the conference song. Conference pictures will be loaded to the website in the near future.

Programming for the Spring 2000 Meeting in San Francisco, Continued:

MOLECULAR-LEVEL CHARACTERIZATION OF SEPARATIONS

This symposium will focus on the use of molecular-level characterization methods to understand the structural and thermodynamic factors governing chemical separations. Relevant topics may include spectroscopy, crystallography, surface characterization, theoretical modeling, chemical kinetics, and related studies of aqueous, non-aqueous, or gas phase separations. Examples demonstrating the use of molecular-level characterization to improve the efficiency or selectivity of a separation process are especially encouraged.

Organizers:

Rebecca M. Chamberlin
Los Alamos National Laboratory
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Los Alamos, NM 87545
Ph. 505-667-1841
Fax 505-665-4955

Richard E. Barrans, Jr.
Argonne National Laboratory
9700 South Cass Avenue
Argonne, IL 60439
Ph. 630-252-6787
Fax 630-252-6862

Symposium on "Equilibrium Modeling of Solution Speciation in Separations"

Organizers: Bruce A. Moyer, Oak Ridge National Laboratory, P. O. Box 2008, Oak Ridge, TN 37831-6119 USA; Ph. 423-574-6718; Fax 423-574-4939; email moyerba@ornl.gov and Mamoun Muhammed, Royal Institute of Technology, Brinellvägen 23, SE-100 44 Stockholm, Sweden; Ph. 46 8 790 81 58; Fax 46 8 790 90 72; email mamoun@matchem.kth.se .

In recent years, interest in modeling equilibrium data pertaining to extractive separations has increased as flexible software packages have become available and as the power of desktop computing has increased. Such modeling allows the deduction of speciation, determination of thermodynamic parameters, and prediction of behavior. In this symposium, recent advances in modeling will be described by way of examples and underlying principles. One half-day session will consist of hands-on software demonstrations. Please submit abstracts electronically in the period September 7-October 12, 1999, at the website: <http://www.acs.org/meetings/abstract/abinfo.html> .

"Applications of Molecular Mechanics to Metal Complexes"

This symposium will focus on how molecular mechanics calculations are being used to address issues in coordination chemistry. The emphasis should be on model application rather than model development. With access to efficient desktop computers and the development of new software products, this has been a rapidly expanding field. As a result, contributed papers are expected to cover a wide range of topics including structure prediction, conformational analysis, metal ion recognition and ligand design, kinetics and mechanism of catalysts, and bioinorganic chemistry.

Organized by:

Benjamin P. Hay, Pacific Northwest National Laboratory, MS K1-83, P. O. Box 999, Richland, WA 99352; Ph. 509-372-6239; Fax 509-375-6631; email ben.hay@pnl.gov and Mark Zimmer, Box 5624, Connecticut College, 270 Mohegan Ave., CT 06320; Ph. 860-439-2476; Fax 860 439-2477; email mzim@conncoll.edu.

High Level Waste Salt Alternative Separation Programs

Organizer: Mark J. Barnes, Westinghouse Savannah River Company, Building 773-A, Aiken; SC 29803; Ph. 803-725-210; Fax 803-725-4704; email: mark.barnes@srs.gov.

Authors are encouraged to submit papers relating to the three Salt Alternative Programs (i.e., Small Tank Tetraphenylborate, Crystalline Silicotitanate, and Grout) being investigated for the separation of cesium, strontium, and the actinides from high level waste at the Department of Energy's Savannah River Site.

**2000 International Chemical Congress of
Pacific Basin Societies
(PacifiChem 2000)**

December 14-19, 2000 in Honolulu, HI

***Separations Science:
Trends for the New Century***

Separations are ubiquitous in chemistry research and in industry. Modern separation science often has to take into consideration the environmental impact of the separations process as well as the efficacy of the separation itself. The proposed symposium will bring together researchers from several Pacific rim countries with research thrusts in new separation technologies and the fundamental basis for those technologies. The symposium will stimulate interest and discussion into how new technologies and new environmental regulations will affect separation science in the academic laboratory and in modern industry. The symposium is tentatively divided into five specific areas of interest:

Green Separation Science and Technology
Crystal Engineering of Porous Solids
Ion Selective Polymers
Industrial Separations
Analytical Separations

Organizers:

Prof. Spiro D. Alexandratos, Department of Chemistry, University of Tennessee at Knoxville, Knoxville, TN 37996-1600 USA; Ph. 423-974-3399; Fax 423-974-3454; email alexsd@utk.edu

Prof. Akinori Jyo, Department of Applied Chem. & Biochem., Faculty of Engineering, Kumamoto University Kumamoto 860, JAPAN; Ph. +81-96-342-3053; Fax +81-96-342-2052; email jyo@gpo.kumamoto-u.ac.jp

Prof. Robin D. Rogers, Department of Chemistry, The University of Alabama, Tuscaloosa, AL 35487 USA; Ph. 205-348-4323; Fax 205-348-9104; email RDRogers@Bama.UA.edu

Prof. Mike Zaworotko, Faculty of Arts and Science, University of Winnipeg, 515 Portage Avenue, Winnipeg, Manitoba, CANADA; Ph. 204-786-9764; Fax 204-783-7981; email Mike.Zaworotko@uwinnipeg.ca

***SS&T Symposia Scheduled for the
San Diego ACS Meeting,
April 1-5, 2001***

**SS&T Award Symposium Sponsored by IBC
Advanced Technologies, Inc. and Millipore
Corp.** Organizers to be determined.

**Polymer Supported Reagents: Fundamental
Studies in Separation Science and Organic
Synthesis.** Spiro D. Alexandratos, Department of
Chemistry, University of Tennessee, Knoxville, TN 37996;
Ph. 423-974-3399; Fax 423-974-3454; email
alexsd@utk.edu.

**Fundamentals and Applications of Anion
Separations.** See call for papers elsewhere in this
newsletter.

Ultrafiltration. Contact Gordon Jarvinen
(gjarvinen@lanl.gov) with ideas for organizers.

Applications of Dendrimers to Separations.
Contact Andy Bond (bond@anlchm.chm.anl.gov) with ideas
for organizers.

Nonbiological Combinatorial Separations.
Contact Gordon Jarvinen (gjarvinen@lanl.gov) with ideas
for organizers.

Separations in Environmental Analysis. Organized
by Dale D. Ensor, Department of Chemistry, Campus Box
5055, Tennessee Technological University, Cookeville, TN
38505; email densor@tntech.edu and Martha Wells
Tennessee Technological University, Water Resource Center,
Box 5033, Cookeville, TN 38505; email
mjmwells@tntech.edu.

Planned Topics for 2001-2002

Closed Loop Applications for Industrial Wastewater.
Contact Gordon Jarvinen (gjarvinen@lanl.gov) with ideas
for organizers.

Separations in Support of Carbon Management. Contact
Gordon Jarvinen (gjarvinen@lanl.gov) with ideas for
organizers.

Isotope Separations. Contact Gordon Jarvinen
(gjarvinen@lanl.gov) with ideas for organizers.

Processing Problems in DOE Privatization. Contact
Gordon Jarvinen (gjarvinen@lanl.gov) with ideas for
organizers.

CALL FOR PAPERS:
Fundamentals and Applications of Anion Separations
San Diego ACS National Meeting, Spring 2001

Abstracts are requested for this symposium featuring anion separations from both fundamental and applied points of view. Specific subtopics to be covered include:

- *Design and synthesis of novel anion receptors*
- *Selective separation and recovery of anions by ion exchange and solvent extraction*
- *Selective separation and recovery of anions by precipitation methods*
- *Crystallization of metallic anions in hydrometallurgy*
- *Determination of anions by ion chromatography and other analytical methods*
- *Anion-selective inorganic ion exchangers*
- *Environmental remediation and waste treatment*

As interest in new extractants and techniques for the separation of anions continues to expand, a corresponding need is growing for interaction between basic research and end uses. What challenges will have high impact to motivate basic research? What exciting opportunities are being

opened up in basic research that might lead to innovative products and methods? If you have insights to share on such questions, please contact:

Bruce A. Moyer
Oak Ridge National Laboratory
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Oak Ridge, TN 37831-6119
Ph. 423-574-6718
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Raj P. Singh
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Division
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Towanda, PA 18848
Ph. 570-268-5441
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email raj.singh@sylvania.com

Other Symposia of Interest

GORDON RESEARCH CONFERENCE - 2000

NUCLEAR WASTE AND ENERGY

Colby-Sawyer College
New London, NH
July 16-21, 2000

The objective of this Gordon Research Conference is to bring together experts (a mix of established scientists and young investigators) to discuss current scientific and technical issues concerning nuclear waste and energy in a relaxed atmosphere where formal discussions (morning and evening sessions) and informal exchanges (free afternoons) can take place. In keeping with the long tradition of Gordon Conferences, attendance will be limited to 100-135 participants. During the four and a half day meeting, conference participants will

explore four broad areas related to nuclear waste and energy: (1) health effects of low doses of radiation, (2) environmental and nuclear waste chemistry, (3) radiation risk perception and communication, and (4) advanced nuclear fuel cycle issues.

Organizers:

Kenneth L. Mossman, Arizona State University, (email ken.mossman@asu.edu) and Jordi Bruno, QuantiSci, Barcelona, Spain. The conference Vice-Chair and Poster Session Organizer is Gregory R. Choppin, The Florida State University (email choppin@chem.fsu.edu).

For further information and an application packet, please contact Gordon Research Conferences, University of Rhode Island, P. O. Box 984, West Kingston, RI 02892-0984; Ph. 401-783-4011; Fax 401-783-7644; URL <http://www.grc.uri.edu>.

Matching Funds are Available from the SS&T Subdivision in Support of Symposia!

One mission of the Subdivision is to foster high quality programming activities. In support of this objective, funds are available from the Subdivision to support separations-related programming activities at ACS national and regional meetings as well as other international symposia. Organizers interested in obtaining matching funds should contact any member of the Executive Committee (contact information is on page 1) for more details, including selection criteria.

New Membership Chair Takes the Helm

David Rockstraw has assumed the position of Membership Chair from Gregg Lumetta, who is now transitioning into the role of Treasurer. The Subdivision wishes to thank Gregg for his past work as Membership Chair. Applications for membership are now being revised to reflect the new contact address, in the meantime new members can reach David at New Mexico State University, Chemical Engineering Department, Box 30001, MSC 3805, Las Cruces, NM 88003; Ph. 505-646-7705; Fax: 505-646-7706; email drockstr@nmsu.edu. An online membership application is currently being established on the SS&T website under David's direction, but is still in the developmental phase.

Andrew H. Bond
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ELECTION BALLOTS ARE ENCLOSED. REMEMBER TO VOTE!