

Candidates for Society Office

The following are biographical sketches and candidacy statements of the nominated candidates for the annual election of officers for the Society. Ballots will be mailed, in January 1999, to all Voting Members of the Society. Offices not affected by this election are those of the other Vice-Presidents—Carlton Osburn and Jan B. Talbot, and that of Secretary—Robin Susko, and of Treasurer—William D. Brown.

Candidate for President



Dale E. Hall is a deputy director of the Materials Science and Engineering Laboratory (MSEL) at the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland. MSEL, a laboratory with a staff of about 350,

provides measurement methods, scientific tools, data, and standards research to the materials community. Dr. Hall has been acting director of MSEL, chief of the Office of Intelligent Processing of Materials, and founding director of the Center for Theoretical and Computational Materials Science. Earlier at NIST, Dr. Hall worked on policy and program analysis in the NIST Director's Office and as a researcher in the Metallurgy Division of MSEL. Prior to joining NIST, he worked in industry; his positions included principal scientist with the International Nickel Co. and principal scientist/group leader with the American Cyanamid Co.

Since joining The Electrochemical Society in 1977, Dr. Hall has been active in Society and Division affairs. He was chairman and vice-chairman of the Industrial Electrolysis and Electrochemical Engineering Division. He has served on many of the Society's standing committees as well as the president's ad hoc long range planning committee. He chaired an ad hoc committee that helped to implement a number of improvements in Society meetings. Dr. Hall represents the Society on the Board of Trustees of the Federation of Materials Societies. He has organized several technical symposia in industrial electrochemistry. Dr. Hall co-authored The Report of the Electrolytic Industries for 1983 and 1984.

Dr. Hall received his BS degree, cum laude, in chemistry in 1969 and PhD in physical chemistry in 1973 from Rensselaer Polytechnic Institute. As a research scientist, Dr. Hall published more than 40 papers and received 10 U.S. patents. He contributes regularly to *Interface* in the "Free Radicals" column. He is an avid reader, woodworker, cyclist, drummer, and hiker. He and his wife, Nancy, have one daughter, Pamela.

Candidates for Vice-President



Subhash C. Singhal is the Manager of Technology and Quality, Solid Oxide Fuel Cell Power Generation at the Siemens Westinghouse Power Corporation's (formerly Westinghouse Electric Corporation) Science and Technology Center

in Pittsburgh, PA. He received a BS degree in chemistry, physics, and mathematics from the Agra University in 1963 and a B Eng degree, summa cum laude, in metallurgical engineering from the Indian Institute of Science in 1965. Dr. Singhal was awarded a PhD in metallurgy and materials science from the University of Pennsylvania in 1965. In 1977, he received an MBA degree from the University of Pittsburgh, where he was awarded the Vincent W. Lanfear Prize for the highest academic performance in the class.

Dr. Singhal joined Chromalloy American Corporation in 1969 as Scientist and Manager, Metallurgical Analysis. In 1971, he moved to the Research and Development Center at Westinghouse as a Senior Engineer and was promoted to Fellow Engineer in 1977. In 1981, he was appointed Manager of High Temperature Materials and in 1983 became Manager of Advanced Materials.

Named as Manager of Fuel Cell Technology in 1984 and Manager of Technology and Quality in 1998, Dr. Singhal is the world's leading authority on solid oxide fuel cell technology for clean and efficient power generation. He has authored and coauthored over 75 papers and over 125 technical reports. He has edited seven books and has received ten patents. Dr. Singhal has also given over 125 presentations worldwide, many invited keynote talks and plenary lectures at international conferences, professional society meetings, and universities.

An ECS member since 1976, Dr. Singhal has served on the Ways and Means Committee (1996-98), Publication Committee (1990-1993), Honors and Awards Committee (1992-96), Solid-State Science and Technology Award Subcommittee (1995-99), the F.M. Becket Award Subcommittee (1983-1985), the Young Authors Award Subcommittee (1989-



Karl E. Spear is Professor of Materials Science and Engineering, and associate head of the Intercollege Graduate Program on Materials at The Pennsylvania State University (Penn State). He received a BS (mathematics) from Baker University and a PhD

(physical chemistry) from the University of Kansas, and spent 15 months at the University of Münster, Germany on an NSF Graduate Fellowship. He worked at Oak Ridge National Laboratory for three years before joining Penn State in 1970. From 1986-91 he was chair of PSU's Ceramic Science and Engineering Program. Sabbaticals were spent at the University of Oxford, AERE Harwell, and the University of Uppsala, Sweden.

Dr. Spear is a Fellow of The Electrochemical Society and the American Ceramic Society. He received the ECS Solid-State Science and Technology Award in 1997, and has been a member of the executive committee of the High Temperature Materials Division for eleven years, serving as chair for three years. He co-organized and co-edited the proceedings of the 11th International Symposium on CVD, co-initiated the First International Symposium on Diamond Materials, and has been active in organizing and editing other Society symposia and proceedings. He has represented the HTM Division on numerous Society committees, and was a member of the Society's Board of Trustees for three years.

Dr. Spear is currently a titular member of the International Union of Pure and Applied Chemistry (IUPAC), and is serving as the chair of its Commission II.3 on High Temperature Materials and Solid-State Chemistry. He organized the IUPAC-sponsored Ninth International Conference on High Temperature Materials Chemistry in May of 1997, and edited the proceedings published by The Electrochemical Society. This meeting was co-sponsored by the ECS High Temperature Materials Division.

Dr. Spear has served on external review committees for Los Alamos National Laboratory, Oak Ridge National Laboratory, the National Science Foundation, the Swedish National Research Council, and has served on numerous other boards/councils of

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Ellen S. Popkin Joins Society Staff

Ellen Popkin joined the Society staff this past May as a production assistant. She is responsible for the day-to-day operation of *Interface* including all page layout, design, and production for both the print and web editions. She also is responsible for the preparation of proceeding volumes for publication and assists in the processing of rights and permission requests. Ellen designs and produces other Society material such as the Publications Catalogue.

Ellen comes to the Society with over ten years experience as a graphic/production artist holding positions in various areas of the commercial art industry. Most recently, she was employed by David Rago Auctions, Inc., a local auction house specializing in high-end Arts & Crafts pottery and furnishings, where she was the lead designer of their catalogues and event support materials.

In her spare time Ellen enjoys a variety of activities including painting, drawing, and photography, and recently has been teaching herself how to refinish furniture. Most weekends she can be found with her family searching for antiques flea markets.

"We're delighted to welcome Ellen to the staff," said Mary Yess, ECS Publications Manager. "She brings to the Society a strong background in production design and has quickly adapted to the demands of working on technical material for both the proceedings volumes and *Interface*."

Erratum

The following presentations were inadvertently omitted from the Boston Meeting Program: Tuesday — Abstracts 400-414 and 918-977 and Thursday — Abstracts 1000-1024 and 1156-1157. For the full program and meeting abstracts, visit our Web Site at the following address: <http://www.electrochem.org/meetings/194/meet.html>. We apologize for the inconvenience.

Singhal (continued from previous page)

1990), the Carl Wagner Memorial Award Subcommittee (Chairman, 1994-96), and as a member of the Board of Directors (1991-1993). He has been active in the High Temperature Materials Division, organizing and chairing many symposia, and has served as its Junior Vice-Chairman (1987-1989), Senior Vice-Chairman (1989-1991), and Chairman (1991-1993). He received the High Temperature Materials Division's Outstanding Achievement Award in 1994 for notable and seminal contributions to the high temperature materials field and the solid oxide fuel cell technology, and was elected a Fellow of the Society in 1996. In 1989, he initiated the highly successful biennial series, the International Symposium on Solid Oxide Fuel Cells, and chaired these symposia in 1989 (Hollywood, Florida), 1991 (Athens, Greece), 1993 (Honolulu, Hawaii), 1995 (Yokohama, Japan), and 1997 (Aachen, Germany).

Dr. Singhal has also been an active member of the Pittsburgh Local Section, where he served as Secretary-Treasurer (1981-1983), Vice-Chairman (1983-1985), Chairman (1985-1987), and Councilor (1987-1989).

Dr. Singhal is also a Fellow of the American Ceramic Society and ASM International, and a member of the Metallurgical Society (TMS), Sigma Xi, and Beta Gamma Sigma. He has served on several advisory panels, including the National Materials Advisory Board's Committee on the Quality of National Defense Stockpile (1982-1984), as an advisor to the United Nations Development Program (UNDP) on the Transfer of Technology to Developing Countries (1981-1982, 1996), and as

an advisor to the United Nations Industrial Development Organization (UNIDO). He served on the Materials Properties Council (1981-1984) as a member of the Critical Materials Task Group and was Director of the NATO Advanced Study Institute on Surface Engineering held in Les Arcs, France in 1983. He is listed in Who's Who in Technology Today and Who's Who in Frontiers of Science and Technology.

Candidacy Statement

The Society's stated objectives include advancing the theory and practice of electrochemistry and allied subjects, dissemination of knowledge in these fields, and the promotion of education on fundamental and applied science and engineering in these fields. Thanks to experienced governance and an effective, dedicated staff, ECS has done a good job in achieving these objectives. To further the Society's and our profession's image, I would like to see a visible, more prominent government relations and public outreach program in the Society. The Society should become a central voice for electrochemical science and technology in the nation. We have a responsibility to the public at large to be an authoritative source of reliable information concerning national and international issues relating to electrochemical science and technology (e.g., corrosion of aging infrastructure, application of batteries and fuel cells in automobiles, and environmentally clean electrochemical power generation, to name a few). We must explore ways to fulfill this mission. Press conferences, workshops for science writers, expanded visibility on Capitol Hill, and directed position papers on topics of public interest will go a long way to build our Society's image. We have got a role to play in a more effective

public outreach. The officers of ECS are positioned uniquely to be a role model of a vibrant, understandable and believable voice directed at the public. A coordinated outreach program involving local sections can be of an immeasurable help in bringing our message to the public.

In addition, electrochemical science and technology have a role to play in keeping this nation technologically and economically sound and growing. To do this, it is essential that we maintain and build our science and scientific workforce. ECS must take a strong leadership role in helping to establish a national science policy, enhancing career opportunities, and making electrochemistry attractive to the best and brightest of our youth. These actions should also help in expanding our membership in the future.

I also believe that the Society must continue to develop more membership assistance programs and benefits, broaden its horizons internationally, respond to new challenges as they arise, and seek out and capitalize on new opportunities. We should form meaningful working alliances with other scientific and professional societies around the world at an accelerated pace; innovative and affordable ways to be affiliates with other organizations must be explored.

The above goals and proposals are great in scope. I strongly believe that they are essential to strengthen and advance ECS, advance our profession, and provide wider benefits to our members which all should help expand our membership base. I will bring in my extensive management experience and international recognition to help achieve these goals and keep the Society at the forefront of electrochemical science and technology in the world as we move into the next millennium. ■

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professional organizations. He chaired the Gordon Research Conference on High Temperature Chemistry, and is currently on the editorial advisory boards of the *High Temperature and Materials Science* journal, and the *Journal of Chemical Vapor Deposition*.

He has been a consultant with government laboratories such as AERE Harwell, Oak Ridge National Laboratory, Los Alamos National Laboratory, and Oak Ridge Gaseous Diffusion Plant, and with a number of industries such as Corning, Air Products, Monsanto, GTE Sylvania, MEMC, Elf Atochem, Diamonex, ATM, and Cummins Engine Co.

Dr. Spear has authored or co-authored more than 168 publications and three patents, primarily on experimental and theoretical research concerned with the synthesis and chemical behavior of materials at high temperatures. Major research topics have included nuclear fuel materials, metal boride systems, theory and practice of crystal growth and CVD, vapor deposition of diamond, oxidation and corrosion of advanced ceramics, interface reactions in composites, and the thermodynamic modeling of oxide phase diagrams and complex glass systems. A common thread in his research has been the application of high temperature chemistry principles, phase equilibria, and thermodynamics to predict and understand materials behavior. Partial equilibrium concepts used in the thermochemical modeling of dynamically reacting CVD systems were later applied to a wide variety of interface reactions such as those occurring in composite systems, in oxidation and corrosion processes, and in modeling the behavior of glass systems used to contain high-level radioactive waste.

Candidacy Statement

To be a candidate for Vice-President of The Electrochemical Society is a tremendous honor. I have great pride in our Society, and believe it is the premier professional organization in the areas of electrochemistry and solid-state science and technology. We have instituted many progressive changes over the past few years, and have benefited from effective and dedicated leadership. As we approach our centennial in 2002, we need to continue to develop new visions for leading us into the next century.

Because the input of our membership is so important to our Society's strength and well-being, I would urge the continuation of our recently instituted member satisfaction surveys. These surveys strengthen our communication with our membership, and bring us a wealth of important ideas and suggestions to carry to our Society committees, and to leadership and staff discussions. I also applaud and would encourage enhanced electronic communications with members via our web site.

We are in an era when increased time pressures are being placed on employees, whether in industry, government laboratories, or at universities. These pressures are greatly affecting the amount of time our members have to volunteer for Society business. The fact that meeting expenses are increasing while members's research and travel budgets are declining is impacting the attendance at Society committee meetings. The challenge of the future in carrying out the Society's business will be to develop new approaches and solutions that are compatible with today's demands on employees in their workplace.

In the future we need to explore the realms of recruiting new members at semi-annual meetings and in local sections, developing additional international sections and student chapters, enhancing Society publicity, and strengthening corporate affiliates programs.

As we all know, the Society provides us with respected technical journals and proceedings volumes; semi-annual meetings for networking and communicating with our colleagues; co-sponsored meetings which help expand our professional interactions; and local section activities that provide professional connections close to home. We have recently made significant improvements in these benefits, the most prominent being that members throughout the world now have immediate access to our electronically published Electrochemical and Solid-State Letters and the Journal. An added improvement would be to provide CD-ROM versions of these journals. These timely means of communicating and networking with our colleagues must continue to be improved as we move into our second hundred years.

In summation, my commitment is to cooperatively work with each of you, the other officers, and our excellent professional staff in order to define and implement our Society's future. ■