CANDIDATES FOR SOCIETY OFFICE

The following are biographical sketches and candidacy statements of the nominated candidates for the annual election of officers for ECS. Ballots (and instructions for voting either online or by mail) will be sent in January 2012 to all Voting Members of the Society. The office not affected by this election is that of the Treasurer.

Candidate for President

Fernando Garzon has had the great fortune to pursue a career in energy science and technology, for all of his professional life. His graduate research at the University of Pennsylvania was centered on the fundamental properties of ceramic ionic conductors in the beta″ alumina family. His postdoctoral appointment with Dr. Ian Raistrick at Los Alamos National Laboratory was originally focused on supercapacitor materials. The discovery of high temperature superconductivity redirected his research to the fundamental growth and characterization of these new materials.

Dr. Garzon's experience in thin film ceramic materials growth and past background in solid-state electrochemistry enabled him to develop new classes of ceramic gas sensors. These mixed potential devices detect oxygen, hydrogen, and combustion emissions such as hydrocarbons, carbon monoxide, nitric oxides, and sulfur dioxides. He has worked for many years with the transportation and power industries to improve energy efficiency and reduce emissions.

He also became actively involved in the multidisciplinary Los Alamos fuel cell program in the early '90s. He was able to contribute to the understanding of the degradation mechanisms of polymer fuel cells by adapting modern materials analysis techniques for the characterization of membrane-electrode assemblies. Dr. Garzon is currently studying the effects of common fuel/air contaminants on polymer fuel cells. He also leads fundamental studies of high temperature proton conducting electrolytes. Dr. Garzon has been a Society member since 1986, a past Chairperson of the HTM Division and served on many ECS and DOE committees. He has co-authored over a hundred publications and seven patents. ■

Candidates for Vice-President

Daniel A. Scherson is currently the Frank Hovorka Professor of Chemistry at Case Western Reserve University. He received a PhD in chemistry from The University of California at Davis under the late Joel Keizer working in the area of nonlinear, non-equilibrium thermodynamics. His interests in interfacial science prompted him to spend the next four years as a postdoctoral research associate in the laboratories of John Newman at UC Berkeley, Phil Ross at the Lawrence Berkeley Laboratory, Ernest B. Yeager at Case Western Reserve University, and finally at the Fritz Haber Institute in Berlin, Germany, working both with Heinz Gerischer and Dieter Kolb, from whom he acquired both theoretical and experimental knowledge in the general area of physical electrochemistry which ultimately shaped his academic career.

In 1983, he joined the Chemistry faculty at Case Western Reserve University, where he is currently Director of The Ernest B. Yeager Center for Electrochemical Sciences. His research interests include the development and implementation of linear and nonlinear spectroscopic and structural techniques for the *in situ* monitoring of interfacial electrochemical events, including operating devices, such as fuel cells, batteries, and electrosynthetic reactors. Daniel Scherson has over 240 journal publications, seven U.S. patents, and hundreds of conference presentations. He has been a member of ECS since 1976. He received a number of prestigious awards, including the IBM Faculty Development Award, David C. Grahame Award of the Physical Electrochemistry Division of ECS, The Faraday Medal of the Electrochemistry Groups of the Royal Chemical Society, The Japan Society for the Promotion of Science Fellowship, the Alexander von Humboldt Senior Fellowship Award and the Vittorio de Nora-Diamond Shamrock Postdoctoral Fellowship. He has held the position of Associate Editor of the *Journal of The Electrochemical Society* (1997-2007), and

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Petr Vanýsek received his undergraduate and graduate degrees in Prague, from the Charles University and the Czechoslovak Academy of Sciences, respectively. After graduation, he made the U.S. his home, first as a postdoctoral fellow at the University of North Carolina at Chapel Hill, then as a Faculty-at-Large at the University of New Hampshire, and then as a tenured faculty at Northern Illinois University. In 2000-2002, Dr. Vanýsek was employed as a principal scientist at ACLARA BioSciences, Inc. in Mountain View, CA, working on the development of new detection schemes in microfluidic systems, data interpretation and instrumentation. At Northern Illinois University, he is a Full Professor of Analytical Chemistry and serves as the Director of Graduate Studies. He is the Treasurer of the Society for Electroanalytical Chemistry and the President of the Federation of Materials Societies.

Dr. Vanýsek's main research interests have been focused on the electrochemical behavior of the interface between two immiscible phases, both on the analytical applications of such interfaces, as well as on achieving a deeper understanding of their atomic-size properties. He is using synchrotron X-rays to probe these interfaces. He has also developed particular expertise in analytical instrumentation and in electrochemical impedance techniques. His research spans both sides of electrochemical interests, the "wet" in electroanalysis and the "dry" in the materials science area.

Professor Vanýsek has authored or co-authored more than 80 journal publications, holds two patents, and has edited and co-edited several books and a monograph on the electrochemistry of liquid/liquid interfaces. He has been a member of ECS since 1986 and was first involved for many years on the executive committee of the Chicago Section. He has been Vice-Chair and Chair of the Sensor Division and Secretary-Treasurer of the Physical and Electroanalytical Division. At the Society level, he has served on the Technical Affairs Committee, the New Technology Subcommittee, and is the Past

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Candidates for Secretary

Hariklia (Lili) Deligianni is a Researcher at IBM's Thomas J. Watson Research Center in Yorktown Heights, NY. Dr. Deligianni's research interests include the investigation of earth abundant materials for thin film solar cells and the integration of solar energy with the electric grid. Lili Deligianni is using electrodeposition for the synthesis of earth abundant semiconductors that are used as light absorbing materials. These game changing technologies can be used to fabricate flexible and rigid solar panels. Her goal is to continue to innovate developing new materials and advanced concepts for solar energy conversion and storage.

Previously, Lili Deligianni played a leading role in the successful introduction of electrochemical processes in the solder bump technology. The process became the standard in the electronic industry for joining of silicon chips to packages. For her technical achievements on the electroplated solder bump process development, she received an IBM Corporate Technical Excellence Award and an Outstanding Innovation Award in 2001.

Dr. Deligianni co-invented the copper electrodeposition process for on-chip interconnects. The introduction of electroplated copper wire on silicon wafers has revolutionized the capability of computer chips. The inventors of the patent associated with the copper interconnect process received the 2006 Inventor of the Year Award of the New York Intellectual Property Law Association. That same year, Dr. Deligianni received an IBM Corporate Award for her technical contributions on the Electroplated Interconnection Structures on Integrated Circuit Chips.

In the early 2000s Dr. Deligianni demonstrated the first integrated on-chip micro-electro-mechanical switch for wireless applications. This technology currently is getting traction for the manufacture of chips with integrated wireless transceivers.

Lili Deligianni received a PhD degree in 1988 in chemical engineering from the University of Illinois in Urbana-Champaign and has been with IBM since that time. She is an elected member of the IBM Academy of Technology. Dr. Deligianni has co-authored 65 journal publications and 129 patents and patent applications.

Lili Deligianni is actively involved in ECS. She has been a member of the ECS for 27 years, first as a student and continuing as a professional. She has co-organized numerous symposia and edited many proceedings and *ECS Transactions* volumes. As the Chair of the ECS Education Committee, she feels very proud about the renewed interest of members in the short courses, the successful student poster sessions, and the fellowships, which have attracted world class professors and researchers as members of the Society. She serves on the Honors and Awards Committee, and has served the Electrodeposition Division for eight years, as a Member-at-Large, Secretary, Vice-Chair, and currently as Chair.

Candidate's Statement

It is an honor and a privilege to serve ECS. I was a graduate student when I first joined ECS 27 years ago. ECS is a wonderful community of world class scientists and engineers from both the academic and industrial sectors, which keeps re-inventing itself though the dissemination of new knowledge. It is at ECS meetings and in ECS publications where the most relevant scientific and technology topics are discussed and where new research ideas are generated. ECS offers a great service to society by advancing the science and technology. The ECS membership is a very vibrant technical and scientific community. The ECS members who volunteer their time and the outstanding ECS staff are a very dedicated and committed group of people with a single mission to promote new electrochemical and solid state science and technology through the Society's meetings, publications, and the many different programs that the Society offers to its members.

This is a very exciting time to be part of the ECS leadership and I cannot hide my enthusiasm. This is a time where innovation in energy and water systems, in healthcare and in information technology promise to transform our society, reduce poverty, and advance our standard of living. These are tremendous challenges of our time, which we can turn into great opportunities. ECS's role is central to the dissemination of this new knowledge, which is an enabler to innovation and to developing new technologies to improve our world. As Secretary of ECS, I will support and promote with new initiatives the key Society's objectives to advance the science and technology, to promote and encourage new research, to educate our members in both the fundamentals and the technology aspects, and to empower our members to advance their careers.

I believe that students are our present and our future. Students are the ones who need to embrace and solve the global challenges of our world. We need to continue serving our student members to provide them with the knowledge and tools to become global thinkers. The support of our student members with the different programs of the

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Curtis F. Holmes received his undergraduate degree in chemistry from Louisiana State University and his PhD in physical chemistry from Indiana University. His doctoral research was in the fields of irreversible thermodynamics and statistical mechanics.

After completing his education he entered the U.S. Army. He spent one year as a First Lieutenant in a research institute and then served as a Captain in Vietnam, where he was awarded the Bronze Star Medal.

Dr. Holmes joined Wilson Greatbatch Ltd. (now Greatbatch, Inc.) in 1976. In 1980 he was named Vice President, Technology and has held the positions of Vice President of Technology and Senior Vice President. His responsibilities included process and product quality, regulatory affairs, reliability, intellectual property, and research and development.

In 1999 Dr. Holmes was named President of a firm acquired by Greatbatch in Columbia, MD. That subsidiary, since relocated to Mexico, produced feedthroughs, coated electrode tips, and other components for implantable biomedical devices and batteries. In 2001 he became Group Vice President, Components, with responsibilities for divisions of the company in Clarence, NY, Carson City NV, and Columbia MD.

In 2004 he returned to Western New York to become the company's Chief Technology Officer. Dr. Holmes retired from full employment at Greatbatch in 2006 and serves as a consultant to the company. He remains active in technical and educational activities of the company. He has authored over 55 technical papers and six book chapters and holds three U.S. patents.

Dr. Holmes has participated in a variety of research and development projects for development of advanced batteries for implantable biomedical devices. Among the projects he has participated in are the improvement of efficiency and reliability of lithium/iodine pacemaker batteries, the development of medium-rate batteries for implantable drug delivery systems and neurostimulators, and the development of high-rate lithium/silver vanadium oxide batteries for the implantable defibrillator.

A frequent participant in scientific conferences, Dr. Holmes has organized or chaired technical sessions for ECS, the Annual Conference on Battery Applications and Advances, and several of the International Meetings on Lithium Batteries. He has presented invited papers in several meetings of ECS.

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Daniel A. Scherson

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currently is the Editor of the *Journal of The Electrochemical Society* (2008-present). He has also served as Chair of the Physical Electrochemistry and of the Battery Divisions of ECS and is a Fellow of ECS.

Candidate's Statement

Over the last decade, the dissemination of scientific information has become a lucrative, highly competitive, and indeed aggressive business where the ultimate goal is to maximize a statistical parameter known as the impact factor, regarded in certain circles as a measure of the prominence of a given journal in its field. This new environment has forced professional societies such as ours to reassess their marketing strategies without crossing the ethical boundaries societies are bound to uphold. After long, and at times, heated deliberations of which I had the privilege of joining, ECS decided as a first step to reorganize the journals along the two general areas of electrochemistry and solid state science and technology. This plan slated for implementation in 2012 will allow for the impact factor of ECS journals to be compared on a fair basis with publications involving the same topics with those of other societies or commercial enterprises.

This new journals structure calls for the appointment of independent Technical Editors representing each and every area of interest of the Divisions of ECS. We envision as a second step in this venture for all members of the Editorial Boards to establish close communication with the Divisions to develop effective means of capturing material presented at the meetings for publication in ECS journals. I am particularly encouraged by the key role Divisions have played in the organization of symposia by providing both leadership and expertise through their volunteer members, which have critically contributed to the continued growth of our biannual meetings.

Proposals, which I fully endorse, are now being considered for the publication of special topical volumes in the two journals involving members of the Division as guest Editors using material presented at symposia as a basis. The members of ECS should be reminded of the fact that our Society is one of the only remaining professional organization that controls its own scientific and technical publications. To maintain this unique position without jeopardizing the financial viability of ECS, demands careful planning, especially now that a major source of income, page charges, has been eliminated since this past summer.

This is the time for every member of ECS to contribute his and her share to this worthy endeavor by submitting their best work to the ECS journals and assisting the Technical Editors in a timely fashion with the evaluation of manuscripts. It is my firm intent to support ongoing efforts by ECS to continue sponsoring and/or cosponsoring national and international events in all corners of the world and thus promote and foster scientific and technical activities in electrochemistry and solid state science. The Electrochemical Society should strengthen its leadership role toward advancing our knowledge in such critical areas as energy conversion and energy storage and the overall sustainability of our planet, which pose formidable challenges to scientists and engineers. ECS has been an important part of the professional life of many members and nonmembers, including my own. Each year, new and interesting topics in energy, electrochemistry, and solid-state technologies appear in ECS meetings and publications. The evolution of the Society has been guided by the efforts and wisdom of past ECS leaders. It is an honor and privilege to be considered for this position.

Petr Vanýsek

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Chair of the Council of Sections. From 2004 to 2008, he served on the Executive Committee as the Secretary of the Society, overseeing the operations of ECS headquarters. He was closely involved in modifying the fundamental Society documents and led the process of merging the Constitution and Bylaws and establishing the new Bylaws that are in effect today. He also helped to establish student groups, including one in Europe. As a representative to the Federation of Materials Societies, he maintains the visibility of ECS at the legislative front.

Dr. Vanýsek has organized or co-organized many symposia, nine of which generated successful proceedings or *ECS Transactions* volumes. He has also written articles related to the history of the Sensor Division, the history of the Chicago Section, and the role of the Council of Sections. The latter was prepared for the Centennial celebration in Philadelphia. Additionally, he contributes notes to *Interface* and was a co-editor of two *ECS Transactions* volumes published from ECS sponsored satellite meetings on Advanced Batteries, Accumulators, and Fuel Cells.

Candidate's Statement

I feel extremely humbled to be nominated as a candidate for a Vice-President of our Society. I know that through my past work for the Society, I have earned your trust and respect and now I hope to win your votes for this leadership position. The job of a Vice-President is multifaceted and, during the four year term, it calls for different duties while consistently requiring a high level of dedication. I am willing and able to take on this position and would be honored to serve our Society in this way.

Membership and future membership is the lifeblood of the society. We are an international society with over 50% of our members coming from outside of the U.S. With the help of the Membership Committee and other initiatives, the visibility of the Society and member desirability for participation will only increase. I am happy to see the steadily increasing numbers of Student Chapters. Local student involvement is an excellent prelude to professional involvement. Two important goals that I see for our Society are enhancing student interest in the physical sciences, which may foster life-long membership, and providing science education to the general public, particularly on contemporary energy issues where our society is very involved. We have a strength through our relationship with the Federation of Materials Societies because they have the opportunity to talk to lawmakers and help them shape views on science and technology.

During the time that I have been part of the governing body of the Society, we have made steps to eliminate the page charges for publications and made it easy to publish online *ECS Transactions*. The biannual meetings prosper and we see record number of participants. As a Vice-President, I will see that this momentum continues and I will support the activities that the Society does well. The ECS-sponsored community website, Redcat,™ made its debut in Boston. This new site will bring new opportunities, and interest for the digital generation, and provide world-wide accessibility.

Along with great successes, there will also be challenges. I have had the opportunity to deal with such instances in my capacity as the Secretary of the Society and I am fully prepared to address them again, promptly and effectively.

I have always had an interest in planning and organizing symposia for the Sensor and PAED Divisions, with which I aligned, one on the dry side and the other on the wet. The Divisions work extremely well in planning and securing symposia. The process that leads to successful symposia is good but needs streamlining. The Society has enabled an online depository of proposed symposia and the associated calendar. But more collaborative, Web-based interaction is possible. As the Third Vice-President, overseeing the Symposium Subcommittee, I will take an active role in streamlining this process.

The mission of the Society is to advance electrochemistry, solid-state science, and allied subjects, through meetings, by fostering expert training and education, and through knowledge dissemination. The Society is expanding its publications by launching new journals in 2012. This brings exciting opportunities to publish more articles and

to encourage existing and new authors. We believe that this will enhance the impact that the authors desire.

Fiscal responsibility and continuous growth are essential to our organization now and in the future. I will be happy, if chosen, to be in service to the Society and help it to achieve its goals.

Hariklia (Lili) Deligianni

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Education Committee is a topic dear to my heart. Development of social networking communities is a visionary step in the new digital world. As a social media, the Redcat website cannot only propagate new knowledge, it can also attract new student members.

Last but not least, high quality publications are the core of the Society where the knowledge remains forever, and electrochemical and solid-state science advances, I will therefore support our publications to the best of my ability.

Curtis F. Holmes

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Dr. Holmes has been an active member of the Society since 1977. He has served as Secretary, Vice-Chair, and Chair of the Battery Division of the Society. He served for five years as Chair of the Publication Committee and was active in the development of *ECS Transactions* as the replacement for the proceedings volumes formerly distributed at technical meetings. He has served on the Technical Affairs Committee and the New Technology Subcommittee and currently serves on the Finance Committee of the Society.

Dr. Holmes served as a member of the Cardiac Rhythm Management Committee of the Association for the Advancement of Medical Instrumentation. He was elected a Fellow of the American Institute for Medical and Biological Engineering in 1996, and was elected an ECS Fellow in 2008.

Candidate's Statement

I am honored to have been nominated as a candidate for Secretary of the Society. I have been a member since 1977 and have greatly benefited from my association with it.

From 1992 through 1998 I served as Secretary, Vice-Chair, and Chair of the Battery Division. During that time I became familiar with the workings of the Society and was successful in interacting with the Society officers, staff, and fellow Divisional leaders.

I have also been an active technical participant in society activities. I have presented many papers over the years and have organized and chaired several technical sessions.

In addition to my professional duties at Greatbatch, Inc., I have been involved with the State University of New York at Buffalo, where I served as a biomaterials adjunct faculty associate and a member of a committee organized to provide certification for biomedical engineering students. These academic activities have provided me with an appreciation for the role of the Society in serving student members, and I will continue to encourage student participation in our meetings and publications.

I will continue to support the interaction of the Society with other professional organizations. I am a member of the American Chemical Society, The Association for the Advancement of Medical Instrumentation, and the American Institute for Medical and Biological Engineering, so I have an appreciation for the workings of our sister professional organizations.

I believe that the Society has a great future. We have a robust Society full of members who enhance the technical and organizational functioning of ECS. We have an excellent and dedicated staff at Society headquarters. We have a 100+ year history of service to our members and the international technical community. I would be proud to continue my service to the society if elected to the position of Secretary.

ECS Co-sponsored Conferences for 2012

In addition to the regular ECS biannual meetings, ECS, its Divisions, and Sections cosponsor meetings and symposia of interest to the technical audience ECS serves. The following is a list of the cosponsored meetings for 2012. Please visit the ECS website for a list of all co-sponsored meetings.

- **Gordon Conference on Electrochemistry**, January 8-12, 2012, Ventura, California, USA
- **China Semiconductor Technology International Conference 2012 (CSTIC 2012)**, March 18-19, 2012, Shanghai, China
- **10th Spring Meeting of the International Society of Electrochemistry**, April 15-19, 2012, Perth, Australia
- **Workshop on Knudsen Effusion Mass Spectrometry**, April 23-25, 2012, Juelich, Germany
  (Sponsored by ECS High Temperature Materials Division)
- **Fifteenth Meeting of the Symposium on Polymers for Microelectronics**, May 8-10, 2012, Wilmington, Delaware, USA
- **11th Spring Meeting of the International Society of Electrochemistry**, May 23-25, 2012, Washington, D.C., USA
- **63rd Annual Meeting of the International Society of Electrochemistry**, August 19-24, 2012, Prague, Czech Republic

To learn more about what an ECS co-sponsorship could do for your conference, including information on publishing proceeding volumes for co-sponsored meetings, or to request an ECS co-sponsorship of your technical event, please contact ecs@electrochem.org.