

DEPARTMENTS

Awards Program Spring 2023

To cite this article: 2023 *Electrochem. Soc. Interface* **32** 54

View the [article online](#) for updates and enhancements.

You may also like

- [Awards Program Winter 2022](#)
- [Awards Program Fall 2022](#)
- [Awards - Spring 2021](#)

Awards, Fellowships, Grants

The Honors & Awards Program recognizes outstanding technical achievements in electrochemistry and solid state science and technology, and exceptional service to the Society, through ECS Society, Division, Section, and Student Awards. Highlights follow.



Visit www.electrochem.org/awards for more information.

Society Awards



The ECS Toyota Young Investigator Fellowship, TOYOTA

established in 2015 in partnership with the Toyota Research Institute of North America, encourages young professionals and scholars to pursue research into batteries, fuel cells and hydrogen, and future sustainable technologies. Each year, at least one candidate receives the fellowship restricted grant of no less than \$50,000* to conduct the proposed research within one year, and a one-year complimentary ECS membership. Recipients must present at a Society biannual meeting and publish their research in a relevant ECS journal within 24 months of receiving the award. **Materials are due January 31 annually.**



The **Charles W. Tobias Award**, established in 2003, recognizes outstanding scientific and/or engineering work in fundamental or applied electrochemistry or solid state science and technology by a young scientist or engineer. The award consists of a framed certificate; \$5,000 prize; ECS Life Membership; complimentary meeting registration; and assistance with travel to the designated meeting. **Materials are due by October 1, 2023.**



The **Edward Goodrich Acheson Award** was established in 1928 for distinguished contributions to the advancement of any of the objects, purposes, or activities of The Electrochemical Society. The award consists of a gold medal; a plaque with bronze replica of the medal; \$10,000 prize; Society Life Membership; and complimentary meeting registration. **Materials are due by October 1, 2023.**



The **Henry B. Linford Award for Distinguished Teaching** was established in 1981 for excellence in teaching in subject areas of interest to the Society. The award consists of a silver medal and a plaque containing a bronze replica thereof; a \$2,500 prize; Society Life Membership; and complimentary meeting registration. **Materials are due by April 15, 2023.**



Leadership Circle Awards, established in 2002 to honor and to thank our electrochemistry and solid state science partners, are granted in the anniversary year that an institutional member reaches a milestone level. Awardees receive a commemorative plaque and recognition on the ECS website and in *Interface*. **Nominations are not accepted.**



The **Vittorio de Nora Award**, established in 1971, recognizes distinguished contributions to the field of electrochemical engineering and technology. The award consists of a gold medal and a plaque that contains a bronze replica thereof; \$7,500; Society Life Membership; and complimentary meeting registration. **Materials are due by April 15, 2023.**

Division Awards



Biannual Meeting Travel Grants are awarded for each Society biannual meeting. Many ECS divisions and sections offer travel grants to undergraduates, graduate students, postdoctoral researchers, and young professionals and faculty presenting papers at ECS biannual meetings. The awards consist of financial support ranging from complimentary meeting registration to luncheon/reception tickets, travel support, and more. Divisions and sections maintain their own application requirements. **244th ECS Meeting Travel Grant applications are accepted from April 7 through June 26, 2023.**



The **Electrodeposition Division Early Career Investigator Award**, established in 2015, recognizes an outstanding early career researcher in the field of electrochemical deposition science and technology. The award consists of a scroll; \$1,000 prize; and complimentary meeting registration. **Materials are due by April 1, 2023.**



The **Electronics and Photonics Division Award** was established in 1969 to encourage excellence in electronics research and outstanding technical contributions to the field of electronics science. The award consists of a framed certificate; \$1,500 prize; and ECS Life Membership or up to \$1,000 to facilitate travel to the designated meeting. **Materials are due by August 1, 2023.**



The **Energy Technology Division Research Award** was established in 1992 to encourage excellence in energy-related research. The award consists of a framed certificate; \$2,000 prize; and membership in the ECS Energy Technology Division for as long as the recipient is an ECS member. **Materials are due by September 1, 2023.**



The **Energy Technology Division Supramaniam Srinivasan Young Investigator Award**, established in 2011, recognizes and rewards an outstanding young researcher in the energy technology field. The award consists of a framed certificate; \$1,000 prize; and complimentary meeting registration. **Materials are due by September 1, 2023.**



The **Energy Technology Division Walter van Schalkwijk Award in Sustainable Energy Technology** was established in 2021 to recognize and reward researcher scientists, academicians, and entrepreneurs who make innovative and transformative contributions to sustainable energy technologies (devices, materials, and/or processes). The award consists of a framed certificate and monetary prize equal to 1/25th of the endowment with a maximum of \$2,500. **Materials are due by April 15, 2023.**



The **Nanocarbons Division Richard E. Smalley Research Award** was established in 2006 to encourage excellence in fullerene, nanotube, and carbon nanostructure research. The award is intended to recognize, in a broad sense, those persons who have made outstanding contributions to the understanding and applications of fullerenes. Awardees receive a framed certificate, \$1,000 prize, and up to \$1,500 in travel assistance. **Materials are due by September 1, 2023.**



The **Nanocarbons Division SES Research Young Investigator Award**, established in 2007, recognizes and rewards an outstanding young researcher in the field of fullerenes, carbon nanotubes, and carbon nanostructures. The award consists of a framed certificate; \$500 prize; and complimentary meeting registration. **Materials are due by September 1, 2023.**



The **Physical and Analytical Electrochemistry Division David C. Grahame Award** was created in 1981 to encourage excellence in physical electrochemistry research and to stimulate publication of high-quality research papers in the *Journal of The Electrochemical Society*. The award consists of a framed certificate and \$1,500 prize. **Materials are due by October 1, 2023.**

Section Awards



The **Pacific Northwest Section Electrochemistry Research Award Sponsored by Gamry Instruments** was established in 2021 to recognize excellence in electrochemistry and solid state science and technology research. The award consists of a certificate and \$1,000 prize. **Materials are due by July 15, 2023.**



Student Awards



The **ECS Summer Fellowships**, established in 1928, assist students pursuing research from June through August in a field of interest to ECS. Up to four summer fellowships are awarded each year: the Edward G. Weston Fellowship, Joseph W. Richards Fellowship, F. M. Becket Fellowship, and H. H. Uhlig Fellowship. Recipients receive \$5,000 to support their research and publication of a summary report in the award year's *Interface* winter issue. **Materials are due by January 15 of each year.**



The **Colin Garfield Fink Fellowship**, first awarded in 1962, assists a postdoctoral scientist/researcher pursue research from June through August in a field of interest to the Society. The award consists of \$5,000 and publication of a summary report in the award year's *Interface* winter issue. **Materials are due by January 15 of each year.**



The **ECS General Student Poster Session Awards**, established in 1993, acknowledge the quality and thoroughness of candidates' work; the originality and independence of their contributions; the significance and timeliness of research results; and the depth of the understanding of the research topics and their relationship to the Society's fields of interest. Three awards are given at each Society biannual meeting. First place receives \$1,500; 2nd place receives \$1,000; and 3rd place receives \$500. Awardees are also recognized with a certificate and announcement in the *Interface* issues accompanying the respective meeting's "Biannual Meeting Highlights" article. Students must submit abstracts to the General Student Poster Session by the biannual meeting abstract deadline to be considered for the awards. **The 244th ECS Meeting abstract submission deadline is April 7, 2023.**



The **ECS Outstanding Student Chapter Award** (formerly The Gwendolyn B. Wood Section Excellence Award) was launched in 2012 to recognize distinguished student chapters that demonstrate active participation in the Society's technical activities; establish community and outreach activities in the areas of electrochemical and solid state science and engineering education; and create and maintain a robust membership base. The winning Outstanding Student Chapter receives a recognition plaque and certificates; \$1,000; and award recognition and chapter group photo in *Interface* or other electronic communications. Up to two Chapters of Excellence are awarded. **Materials are due by April 15, 2023.**



The **Energy Technology Division Graduate Student Award**  **BioLogic**

was established in 2012, recognizes and rewards promising young engineers and scientists in fields pertaining to this division. The award consists of a framed certificate; \$1,000; complimentary student meeting registration; and complimentary admission to the division's business meeting. **Materials are due by September 1, 2023.**



The **Georgia Section Student Award**, established in 2011, recognizes academic accomplishment in any area of science or engineering in which electrochemical and/or solid state science and technology is the central consideration. Recipients—PhD students at universities within the Georgia Section—are nominated by university faculty members. The award consists of a \$500 prize. **Materials due by August 15, 2023.**

(continued on next page)

(continued from previous page)



The **Industrial Electrochemistry and Electrochemical Engineering Division H. H. Dow Memorial Student Achievement Award**, established in 1990, recognizes promising young engineers and scientists in the field of electrochemical engineering and applied electrochemistry. The award consists of a framed certificate and \$1,000 prize for expenses associated with the recipient's education or research project (i.e., tuition, books, equipment, or supplies). **Materials due by September 1, 2023.**



The **Industrial Electrochemistry and Electrochemical Engineering Division Student Achievement Award**, established in 1989, recognizes promising young engineers and scientists in the field of electrochemical engineering. The award consists of a framed certificate and \$1,000 prize. **Materials due by September 1, 2023.**

*US dollars

Award Winners

Join us in celebrating your peers as we congratulate them all! The following awards are part of the ECS Honors & Awards Program, which has recognized professional and volunteer achievement within our multi-disciplinary sciences for decades.

Society Awards

Allen J. Bard Award



JOSEPH HUPP is the Charles E. and Emma H. Morrison Professor of Chemistry at Northwestern University. His research centers on energy- and defense-relevant materials chemistry, including design and synthesis of materials for chemical separations, chemical catalysis, electrocatalysis, light-to-electrical energy conversion, artificial photosynthesis, storage and release of molecular hydrogen, and capture and destruction of chemical warfare agents.

Professor Hupp, a native of rural western New York State, was introduced to electrochemical research as an undergraduate at Houghton College when evaluating candidate electrode materials for heart pacers. He completed his PhD in Chemistry at Michigan State University in 1983 under the late **Mike Weaver**. After a postdoc with **Thomas J. Meyer** at the University of North Carolina, he joined the faculty of Northwestern in 1986.

A longtime ECS member, Prof. Hupp is a Fellow of the American Academy of Arts and Sciences, American Chemical Society, Materials Research Society, American Association for the Advancement of Science, and Royal Society of Chemistry. He has mentored some 200 PhD students, postdoctoral fellows, and visiting scholars, and about 40 undergraduate research students. Alumni of his group are on the faculties of research universities and liberal arts colleges across the US and worldwide. Recognized by Clarivate Analytics as one of the world's most highly cited chemists, Prof. Hupp's research findings are described in nearly 700 peer-reviewed articles and 29 patents.

Gordon E. Moore Medal for Outstanding Achievement in Solid State Science & Technology



FRED ROOZEBOOM is Emeritus Professor in the Inorganic Membranes Group at Universiteit Twente (UT) and a consultant for high-tech industries (tier-1 and SMEs [small and medium-sized enterprises]). Since 2004, his research has focused on selective atomic layer etching (ALE) and atomic layer deposition (ALD), Li-ion batteries, extreme ultraviolet (EUV) optics lifetime, and CO₂ capture.

Prof. Roozeboom received his MSc cum laude at Universiteit Utrecht in 1976 and PhD on topics in catalysis from UT in 1980. He researched zeolite catalysis with ExxonMobil in Baton Rouge and Rotterdam from 1980 to 1983. At Philips Research (now NXP Research) from 1983 to 1997, he worked on III-V semiconductors, integrated circuit (IC) metallization, and magnetic thin films. From 1997 to 2009, he led a team there studying 3D-silicon-based passive integration and via hole (TSV) technology for wireless communication and power management. Prof. Roozeboom received the NXP Bronze Invention of the Year 2007 Award and became a Research Fellow. From 2007 to 2021, as a part-time professor at the Technische Universiteit Eindhoven, he specialized in thin-film technology (plasma etching and atomic layer processing). Concurrently, starting in 2009, Prof. Roozeboom researched the industrialization of spatial ALD and related processing at the TNO Holst Centre. TNO's spatial processing team received the 2011 European Association of Research & Technology Organizations (EARTO) Innovation Award. He joined UT in 2021.

Prof. Roozeboom is the author or coauthor of over 200 publications on chemistry and physics (h-index of 42), five book chapters, 39 granted US patents, editor or coeditor of 51 conference proceedings on semiconductor processing, and Executive Editor of the open access *Atomic Layer Deposition International Journal*. In 2014, he was named Fellow of The Electrochemical Society. He was or is active in several conference committees (AVS, DPS-Japan, ECS, IEEE, and the Materials Research Society [MRS]), and is a member of SEMI Europe's Semiconductor Technology Programs Committee. He is an ECS Electronics and Photonics Division Member-at-Large, was a member of the European Nanoelectronics Initiative (ENIAC) Advisory Committee to the European Commission, and Meeting Chair of the 2003 MRS Fall Meeting.

John B. Goodenough Award of the Electrochemical Society



ARUMUGAM MANTHIRAM is Cockrell Family Regents Chair in Engineering and Professor, Walker Department of Mechanical Engineering, at the University of Texas at Austin (UT Austin). His long-term friendship and collaboration with Prof. Goodenough began as a postgraduate researcher with Prof. Goodenough at Oxford University in 1985, and extended to delivering the 2019 Chemistry Nobel Prize Lecture in Stockholm on the professor's behalf.

Prof. Manthiram received his PhD in Solid State Chemistry from the Indian Institute of Technology–Madras (IIT–Madras) in 1980.

Named Assistant Professor in the Walker Department of Mechanical Engineering at UT Austin in 1991, he was promoted to the rank of Professor in 2000. He served as Director of the Texas Materials Institute and the Materials Science and Engineering Graduate Program from 2011 through 2022.

More than 300 students and postdoctoral researchers, including 69 PhD students have received research training from Prof. Manthiram. Of them, 55 are now faculty around the world; several hold leadership positions in industry. His current research group includes about 35 graduate students and postdoctoral fellows. The author of more than 900 journal articles with over 98,000 citations (h-index of 155), Prof. Manthiram has 20 issued patents. He is one of 6,200 scientists and engineers in all fields in the world included as Clarivate Highly Cited Researchers every year since 2017.

Numerous honors mark Prof. Manthiram's distinguished contributions to science. He is a Fellow of The Electrochemical Society, Royal Society of Chemistry, Materials Research Society, American Ceramic Society, American Association for the Advancement of Science, and World Academy of Materials and Manufacturing Engineering, and elected academician of the World Academy of Ceramics. He has received the 2021 ECS Battery Division Technology Award; 2020 ECS Henry B. Linford Award for Distinguished Teaching; 2020 International Battery Association Research Award; 2018 Da Vinci Award; 2016 Billy & Claude R. Hocott Distinguished Centennial Engineering Research Award; 2015 IIT-Madras Distinguished Alumnus Award; 2014 ECS Battery Division Research Award; 2012 UT Austin Outstanding Graduate Teaching Award, among many other awards.

Since joining ECS in 1995, Prof. Manthiram has volunteered in positions that include Chair of the Texas Section (2006–2007) and the Battery Division (2010–2012), and on many ECS committees, including the Editorial Advisory Board, Symposium Planning Advisory Board, Interdisciplinary Science and Technology Subcommittee, and various award subcommittees. He founded the ECS University of Texas at Austin Student Chapter in 2006 and continues as its Faculty Advisor today.

Norman Hackerman Young Author Award (2021)

For the paper, Entropy Measurements of Li-Ion Battery Cells with Li- and Mn-Rich Layered Transition Metal Oxides via Linear Temperature Variation [J. Electrochem. Soc., 168, 120502 (2021)]



FRANZISKA FRIEDRICH is a battery specialist for BMW, where her research primarily focuses on all solid state batteries. She received her BS in Chemistry and Biochemistry in 2016 and her MSc in 2018 from Ludwig-Maximilians-Universität München. Her undergraduate studies focused on electrochemistry, inorganic solid state chemistry, and materials sciences. She received her PhD summa cum laude in 2022

from the Technische Universität München (TUM). There, in Prof. **Hubert A. Gasteiger's** Technical Electrochemistry Group, her research centered on cathode active materials used for lithium-ion batteries. Dr. Friedrich investigated the aging phenomena of Ni-rich cathodes and published a *Journal of the European Ceramic Society* Editor's Choice article in this research field. She also studied hysteresis phenomena in Li- and Mn-rich NCMs with potentiometric entropy measurements and isothermal micro-calorimetry to understand the effect of the hysteresis on the heat evolution of this type of cathode active material.

Division Awards

Dielectric Science and Technology Thomas D. Callinan Award



Photo: Australian Academy of Science

CHENNUPATI JAGADISH is a Distinguished Professor and Head of the Semiconductor Optoelectronics and Nanotechnology Group at the Research School of Physics, Australian National University. He currently serves as President of the Australian Academy of Science and in the past served as President of the IEEE Photonics Society, IEEE Nanotechnology Council, and Australian Materials Research Society. Prof. Jagadish is the Editor-in-Chief of *Applied Physics Reviews*, editor of two book series, and

serves on editorial boards of 20 other journals. He has published more than 1,020 research papers (730 journal papers); holds seven US patents; coauthored a book; coedited 15 books; and edited 13 conference proceedings and 20 special journal issues. Prof. Jagadish is a Fellow of 12 science and engineering academies in Australia, the US, the UK, Europe, and India, and 14 professional societies, including ECS, IEEE, MRS, and APS. He has received many awards, including the IEEE Pioneer Award in Nanotechnology and Photonics Society Engineering Achievement Award; Optica (formerly OSA) Nick Holonyak, Jr. Award; International Union of Global Materials Research Societies (IUMRS) Sômiya Award; Welker Award; and Walter Boas, W. H. (Beattie) Steel, UNESCO, and Thomas Ranken Lyle Medals. Prof. Jagadish has received Australia's highest civilian honor, the Companion of the Order of Australia, for his contributions to physics and engineering, in particular nanotechnology.

Electronics and Photonics Division Award



JEAN-MICHEL HARTMANN is a CEA Fellow at CEA-Leti (Commissariat à l'énergie atomique et aux énergies alternatives), operational manager of Leti's team working on group-IV epitaxy, and his department's scientific director. His research focuses on the reduced pressure chemical vapor deposition of group-IV semiconductors for nanoelectronics and optoelectronics.

Dr. Hartmann completed his PhD in Physics at Université Grenoble Alpes in 1997. His research focused on the solid source molecular beam epitaxy of CdTe/MnTe and CdTe/MgTe heterostructures for optical purposes. As a Post-doctoral Fellow at Imperial College from 1997 to 1999, he investigated the gas source molecular beam epitaxy of Si/SiGe heterostructures for modulated-doping field effect transistors (MODFETs). Dr. Hartmann began at CEA-Leti in 1999 as a Research Engineer. In 2007, he was named CEA Senior Expert, then CEA Research Director and CEA Fellow in 2016.

Dr. Hartmann won the 2017 Helmholtz International Fellow Award in recognition of over 10 years of collaboration with the Forschungszentrum Jülich (FZJ), initially on European projects and subsequently under the CEA-FZJ framework agreement. The collaboration has resulted in approximately 70 joint papers in the fields of nanoelectronics and photonics, with the latest focusing on GeSn-based components.

(continued on next page)

(continued from previous page)

Energy Technology Division Graduate Student Award sponsored by Bio-Logic



YIRUI (ARLENE) ZHANG is a Postdoctoral Scholar in the Dionne Lab at Stanford University. She completed her PhD in 2022 with Prof. **Yang Shao-Horn** in the Department of Mechanical Engineering at the Massachusetts Institute of Technology. She earned her BS from Tsinghua University, also in Mechanical Engineering. Her thesis focused on electrochemical energy storage and conversion, including Li-ion batteries and electrocatalysis. She developed in situ characterizations to probe the electrode-electrolyte interface and to understand the interfacial molecular structures and electrochemical reactions. Dr. Zhang leveraged the physical chemistry of liquid electrolytes and tuned the molecular structure at the outer Helmholtz layer to notably improve the stability and kinetics of electrochemical reactions. Her work has been published in *Energy & Environmental Science*, *Nature Catalysis*, and other publications.

Energy Technology Division Research Award



ADAM WEBER is a Senior Scientist and Leader of the Energy Conversion Group at Lawrence Berkeley National Laboratory and co-Director of the Million Mile Fuel Cell Truck consortium. His current research involves understanding and optimizing fuel cell and electrolyzer performance and lifetime, including component and ionomer structure/function studies using advanced modeling and diagnostics, understanding flow batteries for grid-scale energy storage, and analysis of solar-fuel generators and CO₂ reduction.

Dr. Weber holds BS and MS degrees from Tufts University and a PhD in Chemical Engineering under the guidance of **John Newman** at the University of California, Berkeley. He is the coauthor of over 200 peer-reviewed articles and 11 book chapters on fuel cells, flow batteries, and related electrochemical devices. Dr. Weber has developed many widely used models for fuel cells and their components, and he has been invited to present his work at international and national meetings. He is the recipient of awards that include a Fulbright scholarship to Australia; 2012 Presidential Early Career Award for Scientists and Engineers (PECASE); 2014 ECS Charles W. Tobias Young Investigator Award; 2016 Sir William Grove Award from the International Association for Hydrogen Energy; and a 2020 R&D 100 Award for microelectrode development. Dr. Weber is a Fellow of The Electrochemical Society and the International Association of Advanced Materials.

Energy Technology Division Supramaniam Srinivasan Young Investigator Award



Photo: Hannah O'Leary

KELSEY STOERZINGER is an Assistant Professor in the School of Chemical, Biological, and Environmental Engineering at Oregon State University. Her research group focuses on designing and understanding electrocatalysts that are selective and efficient in converting and storing renewable energy and leveraging its use for molecular transformations and resource recovery. Stoerzinger holds a joint appointment at Pacific Northwest National Laboratory, where she was a Linus Pauling Distinguished Postdoctoral Fellow until 2018. She completed her Materials Science and Engineering PhD in 2016 at the Massachusetts Institute of Technology, supported by a National Science Foundation Graduate Research Fellowship. Prof. Stoerzinger received an MPhil in Physics from the University of Cambridge as a Churchill Scholar and a BS from Northwestern University. She has received the MRS Nelson "Buck" Robinson Science and Technology Award for Renewable Energy; ISE Prize for Electrochemical Materials Science; and the Intel Rising Star Faculty, National Science Foundation CAREER, and DOE (Department of Energy) Early Career Research Awards, in addition to recognition for her contributions as a teacher and advisor.

High-Temperature Energy, Materials, & Processes Division Subhash Singhal Award



TATSUYA KAWADA is Professor and Dean of the Graduate School of Environmental Studies at Tohoku University, Japan. He received his MSc from the University of Tokyo Graduate School of Engineering in 1986, and joined the National Chemical Laboratory for Industry at the National Institute of Advanced Industrial Science and Technology (AIST), Ministry of International Trade and Industry (MITI). He started research on ion-conducting materials and soon became involved in research on solid oxide fuel cell materials.

Prof. Kawada completed his PhD in Engineering from the University of Tokyo in 1995, and became Associate Professor at the Research Institute of Scientific Measurements, Tohoku University. There, he worked on the materials for gas sensors, high temperature photovoltaic cells, ion emission sources, and solid oxide fuel cells. In 2006, Tohoku University appointed him Professor at the Graduate School of Environmental Studies. Since 2009, Prof. Kawada has served as Principal Researcher of the Tohoku University Group of the New Energy and Industrial Technology Development Organization (NEDO) SOFC National Project. He was head of the Tohoku branch of The Electrochemical Society of Japan in 2017–2018 and board member in 2020–2021. Prof. Kawada was named President of the SOFC Society of Japan in 2022.

Industrial Electrochemistry and Electrochemical Engineering Division H. H. Dow Memorial Student Achievement Award



BAIRAV SABARISH VISHNUGOPI is a PhD candidate in the School of Mechanical Engineering at Purdue University. His research in Purdue's Energy and Transport Sciences Lab (ETSL) focuses on understanding the physicochemical phenomena and coupled mechanistic processes that influence the electrochemical performance, degradation, and safety of Li-ion and beyond Li-ion chemistries. Part of

his PhD research examined the electrochemical, transport, mechanics, and thermal interactions in various battery systems, including Li-ion, Li-sulfur, and solid state Li-metal batteries. A major focus of his research is investigating the origin and propagation of disparate failure modes in Li-metal batteries. His work on Li-metal batteries with liquid electrolytes interrogates the chemo-mechanical and transport mechanisms underlying the growth of dendrites and solid electrolyte interphase failure. In the context of solid state batteries, he has analyzed a wide range of degradation modes, including filament evolution, contact loss, and interphase growth, and developed a systematic connection to fundamental descriptors involving the morphological, kinetic, and thermal stability of solid-solid interfaces. Specifically, his research aims to decipher the role of such degradation pathways under operational extremes like fast charging. He has published over 20 journal papers on different energy storage topics. He received the R. H. Kohr Graduate Student Fellowship in Mechanical Engineering for his research contributions through physics-based modeling, simulation, and analysis.

Industrial Electrochemistry and Electrochemical Engineering Division Student Achievement Award



LAUREN CLARKE is a PhD candidate in the Department of Chemical Engineering at the Massachusetts Institute of Technology (MIT). As a member of Prof. **Fikile Brushett's** research group, she uses a combination of modeling and experiments to understand the impact of material properties and operating parameters on the performance of electrochemical CO₂ separation systems. More generally, her work articulates key

technical metrics for efficient, durable, and economically feasible CO₂ separations.

Clarke received her MS in Chemical Engineering Practice from MIT in 2020, where she completed a one-semester industrial internship at the Shell Technology Center and Emirates Global Aluminium. She received her BS and MSc in Chemical Engineering from the University of North Dakota (UND) in 2016 and 2018, respectively. Her MSc research under Prof. **Gautham Krishnamoorthy** focused on implementing high-performance preconditioners and solvers into a multiphase flow simulation code to reduce computation time and improve performance. At UND, Clarke was a student athlete and four-year member of the women's volleyball team.

Nanocarbons Division Robert C. Haddon Research Award



FRANCIS D'SOUZA is currently Regents Professor of Chemistry and Materials Science and Engineering at the University of North Texas (UNT) and is part of UNT's Applied Materials and Manufacturing Processing Institute. Prior to joining UNT in 2011, he was Professor of Chemistry at Wichita State University (WSU). He received his PhD from the Indian Institute of Science, and held postdoctoral positions at the University of

Houston and the Université de Bourgogne.

Dr. D'Souza's research covers a wide range of chemistry, nanophotonics, electrochemistry, and materials science. Principal research interests include supra and nanomolecular chemistry of photosensitizer-carbon nanomaterials, advanced functional materials for light energy harvesting and photovoltaics, electrochemical and photochemical sensors and catalysts, and nanocomposite hybrid materials for energy storage and utilization. Dr. D'Souza has authored or coauthored over 475 publications, given over 400 conference talks, and edited 10 *Handbooks on Carbon Nanomaterials*, resulting in over 21,000 citations with a cumulative h-index of 74.

Dr. D'Souza has received honors and awards that include Fellow of The Electrochemistry Society and Royal Society of Chemistry; Fulbright Specialist Scholar; ACS-DFW Section Doherty Research Award; Chemical Research Society of India Medal; GIAN Fellow of the Government of India; Japan Society for the Promotion of Science Fellow; and the WSU Excellence in Research Award. Recognition from UNT includes the Research Leadership Award, Toulouse Scholar Award, Regents Professor, and Distinguished Professor. An active ECS member since 1993, Dr. D'Souza was an ECS Board of Directors member from 2004 to 2008. He has previously served as Chair, Vice Chair, Secretary, and Treasurer of the ECS Nanocarbon Division and is currently a Member-at-Large of that division. He was instrumental in establishing and securing endowment monies for the Nanocarbon Division Richard Smalley Research and SES Young Investigator Awards. He has served as Chair or member of several Society-level committees, including the Honors and Awards Committee; the Fellow Subcommittee, and the Acheson, Bard, Callinan, Haddon, Smalley, and Wagner Award Subcommittees. He currently serves as member of the Meetings and Vittorio de Nora Award subcommittees. He has co-organized over 40 symposia for the Society's fall and spring biannual meetings. Dr. D'Souza has also served for the last 10 years as Technical and Associate Editor of the *ECS Journal of Solid State Science and Technology*.

Physical and Analytical Electrochemistry Division David C. Grahame Award



KEITH STEVENSON led the development of a new graduate-level research and innovation institute in Moscow, Russia, having served as Provost, Full Professor, and Founder of the Center for Energy Science and Technology (CEST) from 2014 to 2022. He has also designed a modern material science and engineering education program for MS and PhD students. This program delivers an

(continued on next page)

AWARDS PROGRAM

(continued from previous page)

interdisciplinary mix of engineering and natural sciences; and involves an industrial immersion and entrepreneurship and innovation components. Dr. Stevenson's research interests aim to elucidate and control chemistry at solid/liquid interfaces vital to many emerging energy storage and energy conversion technologies.

Dr. Stevenson received his PhD in 1997 from the University of Utah under the supervision of Professor **Henry S. White**. Subsequently, he held a postdoctoral appointment at Northwestern University (1997–2000) with **Joseph T. Hupp**; and a professorial appointment from 2000 to 2015 at the University of Texas at Austin. To date, he has published over 350 peer-reviewed publications, 14 patents, and six book chapters. He has received the Society of Electroanalytical Chemistry's 2021 Charles N. Reilley Award and 2006 Young Investigator Award; 2012 Kavli Fellow Award; 2004 Conference of Southern Graduate Schools New Scholar Award; and 2002 NSF CAREER Award.



ECS AWARDS & RECOGNITION CEREMONY

Join us as we recognize the achievements of distinguished Society award winners and the outstanding past service of volunteers.

**Monday,
May 29, 2023
1630h
BOSTON, MA, USA
Sheraton Boston Hotel**

SECTION AWARDS

Pacific Northwest Section Electrochemistry Research Award (2022)



ERIC DUFEK is Department Manager for the Idaho National Laboratory (INL) Energy Storage & Electric Transportation Department, overseeing more than 40 research scientists, engineers, postdoctoral researchers, and interns. The department focuses on advanced transportation systems with an emphasis on the use, analysis, and controls for electric vehicle infrastructure; the development, evaluation, and identification of technology gaps for advanced battery technologies; and the analysis of current and future mobility systems. His research interests are in electrochemical systems with an emphasis on Li-metal and Li-ion batteries. Dr. Dufek's recent work has focused on methods to better understand battery failure modes and how they can be better predicted, quantified, and used for life prediction using limited data. He has published more than 85 peer-reviewed journal articles in electrochemistry, batteries, interface modification, immunoassay development, and corrosion. Dr. Dufek completed his PhD in Analytical Chemistry at the University of Wyoming in 2007. Before joining INL in 2010, he was a postdoctoral research associate at the University of Utah.



**SUPPORT THE NEXT GENERATION
THROUGH STUDENT AWARDS!**

Student awards—part of the ECS Honors and Awards Program—support the next generation of scientists by expanding opportunities as they progress in their careers. These awards honor student and early career scientists' dedication and outstanding achievements in their fields of study.

Visit www.electrochem.org/student-awards to learn more.