



CORROSION's 75th Anniversary

Dr. John R. Scully, Technical Editor in Chief

A scientific journal doesn't stand the test of time without a long history of pioneering, ground-breaking scientists behind it, bringing their subject matter expertise and critical eye to the research that enters peer review. *CORROSION* journal has been fortunate to have had many renowned scientists contribute to the legacy that we begin celebrating in this, our 75th year. We stand on the shoulders of many earlier acclaimed corrosion scientists and luminaries, such as Marcel Pourbaix, Herb Uhlig, Richard Oriani, Harold Pickering, Redvers Parkins, Florian Mansfeld, Henry Leidheiser, Digby Macdonald, and many other prominent authors. Moreover, our previous Technical Editor in Chiefs—Ivy Parker, Mars Fontana, Roger Staehle, and Jesse Lumsden—besides always looking for the best content, contributed immensely to the reputation and high standards of the journal as prominent authors themselves. It is therefore fitting that in this issue, we highlight some of the outstanding scientists who currently serve on the journal's Editorial Board.

These men and women, distinguished scientists and researchers in their own right, are among the most experienced corrosion engineers and scientists around the world today. They continue to serve the journal as editors (some for many years) by utilizing all of their knowledge, proficiency, and experience for the benefit of all the authors and corrosion research that passes through our peer review. We have assembled a brain trust of scientific editors with specific expertise and wisdom in the various technical sectors that *CORROSION* covers.

Our Associate Editors have extensive mastery in one or more of the "sectors" that make up the corrosion field: marine, nuclear, oil and gas, concrete, soil, and others. In addition, their capabilities in the various forms of corrosion—such as microbiologically influenced corrosion, uniform corrosion, stress corrosion and hydrogen embrittlement, localized corrosion, as well as galvanic corrosion—are all-encompassing. Associate Editors have been selected for the Editorial Board with an eye toward these industrial sectors, as well as classes of engineered materials such as Al and Mg alloys, nickel-based alloys, all kinds of steels, metallic glasses, even high entropy alloys, as well as materials in emerging areas such as additive manufacturing. As authorities on coatings and many others corrosion control strategies, our Associate Editors' expertise also exists in various types of multi-faceted harsh and complex environments such as soil and natural waters, atmosphere, seawater, as well as production and process side chemical processes.

CORROSION Associate Editors typically have enormous publication experience, not only in our journal, but in many other publications. Our editors publish regularly in numerous other technical journals, and some of them also serve as editors of other journals as well. In addition, our editors all have extensive skill as reviewers of papers, too, reviewing many papers for *CORROSION* even before joining the Editorial Board. I endorse this versatility as it broadens the vision, involvement, and knowledge of best practices for our editors, who each has deep awareness of trends in the publication field. It is also very good for corrosion science to have a broad perspective.

Our Editorial Board has been in place since 1985 and was established by Dr. Jesse Lumsden. It is a diverse group of men and women, currently representing six countries. Today's Editorial Board members include Dr. Peter Andresen, Prof. Nick Birbilis, Dr. David Enos, Prof. Gerald Frankel, Prof. Shinji Fujimoto, Dr. David Kolman, Dr. Jason Lee, Prof. Srdjan Nešić, Prof. James Noël, Prof. Kevin Ogle, Prof. R. Winston Revie, Prof. Alberto Sagüés, Prof. John Scully, Dr. Narasi Sridhar, and Prof. Sannakaisa Virtanen. Our editors are recognized broadly, and include one member of the National Academy of Engineering, three Institute of Corrosion U.R. Evans Award recipients, three NACE Whitney Award winners, two NACE Speller Award winners, numerous technical fellows of various societies, and numerous NACE as well Electrochemical Society H.H. Uhlig Award winners.

This special anniversary issue features some of their research and provides a forum to highlight just a fraction of their expertise as evident in the manuscripts we have published. It is my great pleasure to reintroduce to you these esteemed editors, recognized and showcased here through some of their latest research. Nick Birbilis is the former chair of Materials Science and Engineering at Monash University, and is now Associate Dean of Engineering at Australian National University. He is also an editor of *Electrochimica Acta* and *npj Materials Degradation*. His paper investigates the characteristics of the film on a novel corrosion resistant Mg-Li(-Al-Y-Zr) alloy. Gerald Frankel is the director of the Fontana Corrosion Center at The Ohio State University and an editor

for the *Journal of the Electrochemical Society*. His paper is on the corrosion of intermetallic phases in aluminum alloys in the area of light alloy corrosion, for which he is extremely well known. John Scully is a past associate editor (key reader) for *Metallurgical and Materials Transactions*, co-director of the Center for Electrochemical Science and Engineering, and serves as MSE Department Chair at University of Virginia. His paper concerns the application of a novel couple multi-electrode array to galvanic corrosion in a crevice. Srdjan Nešić directs the Institute for Corrosion and Multiphase Technology at Ohio University. His paper focuses on modeling of inhibitor molecule adsorption on surfaces and helps establish a better computational approach to evaluate inhibitors. Jason Lee and Brenda Little are affiliated with Naval Research Laboratory at the Stennis Space Center and have teamed to write a paper on microbiologically influenced corrosion using a novel approach to seed the surface with microbial agents. David Kolman is a Senior Member of Technical Staff at Los Alamos National Labs. His paper reviews what is known about liquid metal embrittlement of metals and alloys, which is timely with respect to advanced nuclear reactors. Kevin Ogle from École Nationale Supérieure de Chimie de Paris studies the temperature dependence of the passivation and dissolution of Al, Zn, and O-phase Zn-68Al using electrochemical, microscopic, and the novel AESEC approach. James Noël, from University of Western Ontario and with much experience on Ti hydrides, reports on physical and electrochemical evidence for the role of a Mg hydride species in Mg alloy corrosion, bringing new insight to the corrosion of magnesium alloys. Finally, Narasi Sridhar, Vice President and Program Director of the Materials Technology Development at DNV GL, with a fine reputation in lifetime prediction and risk assessment, presents a paper on long-term evolution of corrosion potential of carbon steel in alkaline radioactive waste environments.

Over their long careers, our associate and guest editors, both past and present, have made immense contributions to the field of corrosion science, engineering, and technology. They have also made a significant impact to the reputation and longevity of *CORROSION*. Our editors demonstrate sterling technical and publishing principals, which help prospective authors with fair, constructive advice—all done with the intent to improve the science. The *CORROSION* Editorial Board members have set the standard—a standard of originality, excellence, and integrity—and they bring wisdom, experience, and judgement to this publication, which I really value and appreciate.

Please enjoy the manuscripts in this 75th Anniversary Edition!