

Special Issue on
**Electrochemical Techniques for In Situ and
Nondestructive Corrosion Monitoring**

CALL FOR PAPERS

Corrosion generally refers to the degradation of metals due to their interactions with the surrounding environments. Corrosion causes huge economic losses and sometimes results in catastrophic events. Therefore, accurate monitoring of corrosion is of vital importance for its early detection and the prevention of consequential losses. Because most types of corrosion occur in the presence of moisture or electrolyte and involve electrochemical processes, they can be assessed and/or monitored using electrochemical techniques. Some electrochemical techniques are destructive in nature (i.e., anodic polarization), and others are virtually nondestructive techniques, such as electrochemical impedance spectroscopy (EIS), electrochemical noise measurement (ENM), and zero resistance ammetry (ZRA). Despite extensive efforts devoted to the electrochemical monitoring of corrosion, such as corrosion under protective coatings and corrosion in concrete, challenges exist in applying these techniques to other types of corrosion as well as accurate data analyses (e.g., EIS and ENM results).

This special issue aims to publish recent advances in corrosion monitoring using nondestructive electrochemical techniques, including new techniques (e.g., novel electrodes or sensors), new applications, and new data analysis methods. Contributions involving the development and application of novel electrode systems, such as multielectrode arrays (MEA) and embedded sensors, are particularly welcome.

Potential topics include but are not limited to the following:

- ▶ Atmospheric corrosion
- ▶ Corrosion under protective coatings
- ▶ Corrosion in concrete
- ▶ Corrosion in buried conditions (e.g., soil)
- ▶ Microbiologically influenced corrosion
- ▶ Stress corrosion cracking
- ▶ Corrosion inhibitor performance
- ▶ Corrosion in high-temperature environments (e.g., nuclear)

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijc/etin/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Shengxi Li, University of Akron, Akron,
USA
sli17@uakron.edu

Guest Editors

Jian Chen, Western University, London,
Canada
jchen496@uwo.ca

Maocheng Yan, Chinese Academy of
Science, Shenyang, China
yanmc@imr.ac.cn

Submission Deadline

Friday, 25 January 2019

Publication Date

June 2019