

## Special Issue

# Sustainable Corrosion Control Strategies for Metals and Alloys in a Low-Carbon Era

### Message from the Guest Editors

This Special Issue of *Processes* is dedicated to recent advances in the understanding, prevention, and control of corrosion in metallic materials across a wide range of industrial processes. It features original research articles, reviews, and case studies addressing corrosion mechanisms, corrosion-resistant alloys, innovative surface treatments, and protective coatings, with an emphasis on technological developments that enhance the durability, efficiency, and sustainability of metals in diverse environments. A central focus of this Special Issue is the development of sustainable corrosion protection solutions in alignment with low-carbon and circular economy goals. In this context, we welcome contributions on the following:

- Eco-friendly and bio-based corrosion inhibitors;
- Protective coatings incorporating recycled materials, such as polymers or industrial by-products;
- Surface engineering for corrosion resistance in renewable energy systems and clean technologies;
- Green chemistry approaches and life-cycle assessment (LCA) applied to corrosion mitigation;
- Integration of corrosion protection in sustainable manufacturing processes.

---

### Guest Editors

Dr. Fernando Cotting

Department of Chemical Engineering, Universidade Federal de Minas Gerais, Belo Horizonte 31270-901, Brazil

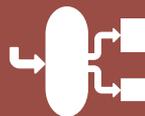
Dr. Walney Silva Araújo

Department of Metallurgical and Materials Engineering, Federal University of Ceará, Fortaleza 60440-554, Brazil

---

### Deadline for manuscript submissions

15 January 2027



## Processes

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.5



[mdpi.com/si/245083](https://mdpi.com/si/245083)

*Processes*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[processes@mdpi.com](mailto:processes@mdpi.com)

[mdpi.com/journal/  
processes](https://mdpi.com/journal/processes)





# Processes

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.5



[mdpi.com/journal/  
processes](https://mdpi.com/journal/processes)



## About the Journal

### Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

---

### Editor-in-Chief

Prof. Dr. Giancarlo Cravotto  
Department of Drug Science and Technology, University of Turin, Via P.  
Giuria 9, 10125 Turin, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

#### Journal Rank:

CiteScore - Q2 (Chemical Engineering (miscellaneous))