

Special Issue

High-Temperature Corrosion and Protection of Alloys

Message from the Guest Editors

Alloys of various kinds are widely used in applications where high-temperature and aggressive environments are both present. Regardless of the application, durability is a key factor of success. Research activities are meant to understand the mechanism of degradation in operando of the metal components and its dependence on working parameters such as the environment, temperature, side reactions, contact with other materials, presence of electric or magnetic fields, mechanical stress, and phase changes. It is thus of fundamental importance to discuss the materials selection and the eventual protection strategies applied to enhance correspondence amid application issues and materials science responses. This Special Issue of *Metals* will welcome papers regarding all kinds of alloys and practical solutions (consolidated, experimental and theoretical) regarding:

- High-temperature corrosion, oxidation;
- Protection of metal supports;
- Accelerated tests;
- Modeling (both descriptive and predictive);
- Interaction between microstructural features and corrosion behavior;
- Failure risk assessment.

Guest Editors

Prof. Dr. Paolo Piccardo

M.E.T.A.L. Research Group, Department of Chemistry and Industrial Chemistry, University of Genova, Via Dodecaneso 31, 16146 Genoa, Italy

Dr. Roberto Spotorno

M.E.T.A.L. Research Group, Department of Chemistry and Industrial Chemistry, University of Genova, Via Dodecaneso 31, 16146 Genoa, Italy

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editor-in-Chief

Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering,
State Key Laboratory for Advanced Metals and Materials, University of
Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083,
China

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manuscripts are peer-reviewed and a first decision is
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the second half of 2025).