Special Issue

Electrochemical Corrosion and Protection of Alloys and Steels

Message from the Guest Editor

Alloys and steel undergo corrosion in various environments. This corrosion can be controlled by various methods, such as the use of corrosion inhibitors, painting, cathodic protection, etc. Articles are invited on topics including (but not limited to) the following:

- Basic aspects of corrosion; Theories of corrosion;
- Corrosion control in concrete technology;
- Corrosion inhibitors for cooling water systems;
- Corrosion resistance of mild steel in simulated concrete pore solution;
- Corrosion resistance of mild steel in simulated oil-well water;
- Corrosion resistance of gold 18 K in the presence of artificial sweat;
- Corrosion resistance of gold 22 K in the presence of artificial sweat;
- Corrosion resistance of gold 18 K in the presence of artificial saliva;
- Corrosion resistance of gold 20 K in the presence of artificial saliva;
- Corrosion resistance of 316 L alloy in the presence of artificial saliva;
- Corrosion resistance of 18/8 alloy in the presence of artificial saliva;
- Corrosion resistance of mild steel in the presence of green inhibitors;
- Corrosion problems in aircraft parts;
- Titanic corrosion; Silver bridge corrosion.

Guest Editor

Prof. Dr. Susai Rajendran

1. Corrosion Research Centre St. Antony's College of Arts and Sciences for Women, Thamaraipadi, Dindigul-624 005, India
2. Centre for Nanoscience and Technology, Pondicherry University, Puducherry 605 014, India

Deadline for manuscript submissions

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

mdpi.com/journal/metals

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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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Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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