

Special Issue

Corrosion Behaviour of Duplex Stainless Steels

Message from the Guest Editors

Duplex stainless steels (DSSs) are steels with austeno-ferritic microstructure with a relevant scientific and applicative interest as they have a favourable combination of mechanical properties, weldability and high corrosion resistance in different environments. The corrosion properties of duplex stainless steels depend upon the alloy chemical composition and the degree of homogeneity of passivating alloying element distribution in the two phases. This Special Issue collects research studies related to all aspects of DSS corrosion behaviour: from the study of the influence of the chemical composition on the alloy corrosion resistance to the evaluation of the effect of secondary phases formation during thermal aging or welding, from new information on DSS applications in aggressive environments, to the development of innovative alloys coupling high performances and moderate costs. In particular, we particularly welcome research on innovative lean DSSs, owing to their increasing applicative interest.

Guest Editors

Dr. Eng. Federica Zanotto

Corrosion and Metallurgy Study Centre "Aldo Daccò", Department of Engineering, University of Ferrara, Via Saragat 4A, 44122 Ferrara FE, Italy

Dr. Andrea Balbo

Corrosion and Metallurgy Study Centre "Aldo Daccò", Department of Engineering, University of Ferrara, Via Saragat 4A, 44122 Ferrara FE, Italy

Deadline for manuscript submissions

closed (30 January 2020)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/24118

Metals

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

mdpi.com/journal/

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





Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



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



About the Journal

Message from the Editorial Board

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.

Editors-in-Chief

Prof. Dr. Hugo F. Lopez

Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

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

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) /
CiteScore - Q1 (Metals and Alloys)

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).