

Special Issue

High-Temperature Brazing with Filler Metals

Message from the Guest Editor

High-temperature brazing (HTB) can produce high-quality joints with qualities such as high strength, a high remelting temperature or a high servicing temperature in many different industries. Especially for metals with poor weldability, advanced ceramics, ceramic matrix composites, carbon-fiber-reinforced carbon matrix composites (Cf/Cs) or dissimilar materials, HTB is the preferred process. Even for general high-strength low-alloy steels, stainless steel, heat-resistant superalloys, corrosion resistant nickel-based alloys, which serve at high temperatures or at room temperature but for heavy loads, HTB is a precise and effective joining method in some cases. For this Special Issue, we welcome articles that focus on HTB method improvement as well as new braze and buffer layer design routes. Articles that focus on the characterization and analysis of wetting behavior, interfacial microstructure evolution, inhibition of intermetallic compounds and thermal stress are also welcome for submission.

Guest Editor

Prof. Dr. Guifeng Zhang

State Key Laboratory for Mechanical Behavior of Materials, Xi'an Jiaotong University, Xi'an, China

Deadline for manuscript submissions

closed (30 April 2024)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/185857

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 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

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 18.7 days after
submission; acceptance to publication is undertaken in 2.7
days (median values for papers published in this journal in
the second half of 2025).