

Special Issue

Embrittlement Phenomena in Steel Metallurgy

Message from the Guest Editors

We are pleased to announce a Special Issue of the MDPI journal *Metals* on "Embrittlement Phenomena in Steel Metallurgy". Embrittlement is a complex phenomenon that significantly affects the mechanical properties and structural integrity of steel, posing challenges in various industrial applications such as the construction, transportation, and energy sectors. This Special Issue will cover a wide range of embrittlement mechanisms, including liquid metal embrittlement, hydrogen embrittlement, temper embrittlement, and stress corrosion cracking. We invite researchers from all relevant disciplines to contribute original research articles or critical reviews focusing on, but not limited to, the following topics:

- Responsible mechanisms
- Mitigation techniques
- Occurrence of embrittlement in manufacturing processes (welding, hot-stamping, galvanizing) or during service
- Crack growth modeling
- Novel test methods for embrittlement susceptibility and evaluation
- Characterization of metallurgical and embrittlement features

Guest Editors

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Deadline for manuscript submissions

closed (29 February 2024)



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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

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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
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the second half of 2025).