Special Issue

Thermal Spray Processes: The Evolution of Equipment, Technology and Feedstock

Message from the Guest Editors

Thermal spraying is one of most versatile technologies in coatings deposition. Its attractiveness results from its high efficiency of deposition of a broad range of materials, including ceramics, metals, and alloys. In the last few years, new emerging spray technologies, mainly cold spraying and thermal spraying with liquid feedstocks, have become of increasing interest. The torches used to spray use cold or warm gases accelerated in a De Laval nozzle; hot gases or plasmas being heated by gas combustion or by an electric arc. The evolutions in torches design include the ways of feedstock injection and methods of gas heating. The use of liquid feedstock, such as suspensions and solution precursors, enabled the achievement of new coating architectures and the achievement of promising mechanical or thermophysical properties. On the other hand, development of metal-cladded ceramic powders paves the way to obtain cermet coatings with the use of the cold spray technique. The proposed Special Issue invites the authors of papers that are active in the development of these new thermal spray processes, as well as on the design of new concepts for feedstock

Guest Editors

Prof. Dr. Lech Pawlowski

Prof. Dr. Andreas Killinger

Dr. Filofteia-Laura Toma

Deadline for manuscript submissions

closed (31 December 2018)



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/11035

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

mdpi.com/journal/ metals





Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



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 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).

