Special Issue

Advances in Cold Spraying Technology for Sustainable Material Development and Green Energy Application

Message from the Guest Editor

Cold spraying (CS) technology is a cutting-edge, solid-state additive manufacturing process that enables us to deposit materials without melting them, preserving their intrinsic properties and minimizing energy consumption. Since its development in the late 20th century, cold spraying has evolved from a coating technology into a versatile platform for additive manufacturing. It has been applied across industries such as aerospace, automotive, energy, and biomedical engineering. Recent advances highlight innovations in equipment design, process optimization, and feedstock material development. Applications include corrosion-resistant coatings, high-performance components for hydrogen energy systems, repair of critical parts, and production of materials for energy storage and conversion. Cold spraying's ability to operate at lower temperatures reduces greenhouse gas emissions and aligns with sustainable manufacturing practices.

Guest Editor

Dr. Sabeur Msolli
ICB UMR 6303 CNRS, Université Marie et Louis Pasteur, UTBM, 90010 Belfort, France

Deadline for manuscript submissions

20 October 2026

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/230105

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

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

About the Journal

Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editors-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

MDPI