Special Issue

Laser Manufacturing of Advanced Materials

Message from the Guest Editor

The evolution of materials and the needs of high-quality, high-performing products has led research to move towards the study of new technologies for manufacturing. Often, the use of laser technologies can represent a solution.

This Special Issue aims to collect scientific contributions on new technologies, strategies, manufacturing approaches, and materials for the laser manufacturing of advanced materials. Scientific contributions can be focused on conventional and unconventional laser processes (laser hybrid processes), and new materials for high-performance applications or surface treatments and/or surface functionalization (hardening, texturing, etc). Furthermore, characterization methods and computational approaches for modelling the laser process and material properties (such as numerical simulations, mathematical modelling, optimization, control, etc.), and contributions featuring an environmental impact analysis (LCA), are of interest.

Keywords: Laser; Advanced materials; Surface treatment; Manufacturing; Numerical and mathematical modelling; Processing; Characterization; Functionalization; Life cycle assessment.

Guest Editor

Prof. Dr. Stefano Guarino

Department of Engineering, University of Rome Niccolò Cusano, Via Don Carlo Gnocchi 3, 00166 Rome, Italy

Deadline for manuscript submissions

closed (31 January 2021)



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/34575

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41616837734 applsci@mdpi.com

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

