



*materials*



an Open Access Journal by MDPI

## Laser Micromachining of Materials for Biomedical Applications

Guest Editors:

**Prof. Dr. Tsung-Yuan Kuo**

Department of Mechanical Engineering, Southern Taiwan University of Science and Technology, Tainan 710, Taiwan

**Prof. Dr. Hong-Chuong Tran**

Department of Mechanical Engineering, National Taipei University of Technology, Taipei 10608, Taiwan

Deadline for manuscript submissions:  
**closed (20 January 2024)**

### Message from the Guest Editors

Dear Colleagues,

Laser micromachining of materials has received a significant attention from both research communities and various industries in recent years due to its wide ranges of applications such as Metal Additive Manufacturing, laser polishing, laser hardening, in situ alloying, etc. Thus, laser micromachining technologies demonstrate a promising future in biomedical applications.

This Special Issue aims to cover recent advances in the field of laser micromachining for bio-medical applications. The articles collected in this Special Issue include, but are not limited to, the application of metal 3D printing for biomedical implants, the mechanical and bio properties of a lattice structure for biomedical implants, bio-mimicry design, laser material processing for biomedical applications, computational laser material processing, biocompatible material, a laser-based biocompatible material process and metallic glasses for biomedical applications. Topics are also open for laser micromachining-based related research.



[mdpi.com/si/103334](https://mdpi.com/si/103334)

Prof. Dr. Tsung-Yuan Kuo  
Prof. Dr. Hong-Chuong Tran  
*Guest Editors*

**Special** Issue



an Open Access Journal by MDPI

## Editor-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

## Message from the Editor-in-Chief

*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.

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

## Contact Us

---

Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)