

Special Issue

Infrared Fiber Lasers and Their Applications in Materials Processing

Message from the Guest Editors

Progress in laser technology has always been stimulated by the development of new materials. This is also true for fiber lasers. Fiber lasers can be characterized by good quality of the output beam, small dimensions, high efficiency, excellent heat dissipation properties, and very good reliability. Due to these unique features, fiber lasers have been the key enabling technology for many applications. Recently, significant progress has also been achieved in the development of mid-infrared fiber lasers. The development of fiber lasers operating in the mid-infrared wavelength region can lead to novel material processing applications.

Furthermore, many important compounds have strong absorption bands in the mid-infrared region. Therefore, lasers operating in this spectral region can potentially provide desirable enabling technology platforms for the development of novel, more compact and reliable materials processing systems. Thus, fiber lasers operating close to 3.4 μm could be instrumental to plastic processing systems that weld, cut, or engrave plastic.

Guest Editors

Dr. Lukasz Sójka

Telecommunications and Teleinformatics Department, Wrocław University of Technology, Wybrzeże, Wyspińskiego 27, 50-370 Wrocław, Poland

Prof. Dr. Sławomir Sujecki

1. Department of Telecommunications and Teleinformatics, Wrocław University of Technology, Wybrzeże, Wyspińskiego 27, 50-370 Wrocław, Poland

2. Faculty of Electronics, Military University of Technology, ul. Gen. Sylwestra Kaliskiego 2, 00-908 Warsaw, Poland

Deadline for manuscript submissions

closed (31 December 2021)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/41784

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

[mdpi.com/journal/
materials](https://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](https://mdpi.com/journal/materials)



About the Journal

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.

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

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)