Special Issue

Thulium-Doped Fiber Lasers—Advances and Applications

Message from the Guest Editor

The number of demonstrations of Thulium-doped fiber lasers (TDFLs) generated at a wavelength range of 2 µm has increased rapidly in recent years. The gain bandwidth of Tm3+-doped silica fibers, ranging from 1.8 to 2.1 µm, makes TDFLs one of the most promising sources of mid-infrared coherent radiation for various applications, including medicine, spectroscopy, remote sensing, material processing, and frequency conversion. Due to the broadband gain bandwidth, thulium-doped fibers are also an excellent choice for an active medium in mode-locked fiber lasers and the generation of ultrashort pulses. However, our topics of interest are not only limited to fiber lasers operating in the 2 µm spectral region, and reports on TDFLs utilizing other laser transitions are also invited. This Special Issue aims to present recent advances in the development of thulium-doped fiber lasers—different laser setups and generation regimes, including ultrafast mode-locked fiber lasers as well as high-power continuous-wave (CW) lasers, new designs of thulium-doped fibers, and their applications.

Guest Editor

Dr. Maria Michalska

Institute of Optoelectronics, Military University of Technology in Warsaw, PL-00908 Warsaw, Poland

Deadline for manuscript submissions

closed (31 October 2022)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/121878

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

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

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)