photonics

an Open Access Journal by MDPI

IMPACT FACTOR 2.1

CITESCORE 2.6

Single Frequency Fiber Lasers and Their Applications

Guest Editors:

Prof. Dr. Ting Feng

Prof. Dr. Guolu Yin

Dr. Wanjing Peng

Dr. Bin Yin

Deadline for manuscript submissions:
20 September 2024

Message from the Guest Editors

The purpose of this Special Issue is to attract the latest theoretical and experimental results about single-frequency fiber lasers and recent developments in their applications.

Topics to be covered include, but are not limited to, the following:

- Fiber lasers operating in traditional and new spectral ranges from NIR to MIR regions;
- New gain optical fibers and gain mechanisms (SBS-based and SRS-based);
- Novel single-longitudinal-mode or single-frequency selection mechanisms;
- Novel optical filters (fiber-based and waveguide-based);
- Laser frequency stabilization, noise suppression and linewidth compression methods;
- Single-frequency laser amplifying and high-power fiber lasers;
- Multi-wavelength lasing, and wavelength-switchable and tunable operations;
- Single-frequency Q-switched lasing operation;
- theoretical modeling of single-frequency fiber lasers; new materials used as saturable absorbers in fiber lasers;
- Practical applications such as LIDAR, optical communication, fiber sensor, spectroscopy, laser manufacturing, microwave photonics, and all other related areas.

mdpi.com/si/154648

Special Issue