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Optical Fiber Devices: Technologies and Applications

Guest Editor:

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Deadline for manuscript submissions:
closed (20 August 2024)

Message from the Guest Editor

Optical fiber technologies can enable many essential functionalities, such as signal processing, distributed sensing, chromatic dispersion compensation, optical amplification, or signal generation. Their applications include optical distribution networks, next-generation fiber–wireless communications, broadband measurement instrumentation, medical imaging, or optical coherence tomography. More recently, the inclusion of the space dimension in optical fiber technologies to increase the transmission capacity per fiber has opened the way to the development of new optical fibers.

This Special Issue invites manuscripts that introduce recent advances in “Optical Fiber Devices for Communications and Signal Processing”. All theoretical, numerical, and experimental papers are accepted. Topics include, but are not limited to, optical fiber communications, sensing, and signal processing exploiting:

- Microwave and teraherz photonics;
- Fiber sensing;
- Specialty optical fibers for communications and signal processing;
- Space division multiplexed fibers;
- Fiber Bragg gratings;
- Optical coherence tomography;
- Nonlinear optical fibers.