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SWIR and MWIR Fiber-Based Coherent Sources

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Message from the Guest Editor

Dear Colleagues,

This Special Issue focuses on SWIR and MWIR fiber lasers and fiber-based coherent sources, i.e., sources emitting in the wavelength range from 1.5 μm to beyond 5 μm , a topic with perduring interest that strongly increased in recent years and which addresses a wavelength range that becomes more and more important in the near- and midterm future. Applications range from environmental monitoring and sensing in the unique fingerprint region of molecular absorption, over medical surgery and plastic processing employing several absorption features of water and plastic materials up to specific applications in defense and security.

The topics includes novel doped fibers for direct emission, directly emitting fiber lasers, fiber lasers for pumping applications in non-linear frequency conversion and indirect fiber-based sources using non-linear fibers based on mid-IR materials.

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Keywords: SWIR fiber laser; MWIR fiber laser; Erbium; Thulium; Holmium; Silica fibers; Fluoride fibers; Telluride fibers; Chalcogenide fibers; Fiber non-linear mid-IR frequency conversion; Supercontinuum generation



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Special Issue



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Message from the Editor-in-Chief

Fibers is intended as an integrative platform, bringing together specialists with expertise concerning a large range of biological, synthetic, metallic and mineral fibers. The intent is to bring together scientists who would otherwise be unlikely to encounter each other's findings. By facilitating communication across specialties, the journal will advance understanding of the underlying commonality of many physical and chemical aspects of fibers.

We welcome submission of manuscripts from a diverse range of disciplines relating to many types of fibers utilizing a variety of research approaches.

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