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Mid-IR Active Optical Fiber: Technology and Applications

Guest Editor:

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Message from the Guest Editor

Nowadays, optical fiber devices working in the middle-infrared (Mid-IR) range are becoming a topic of interest for academia and industry. This Special Issue aims to bring together recent advances in the design, fabrication, and application of Mid-IR optical fibers. It covers a broad spectrum of topics, including novel fiber materials, waveguiding section designs, fiber-based sensing systems, laser design and fabrication, and the integration of these fibers into actual systems for real-world applications. By highlighting these developments, we hope to shed light on the current state of Mid-IR fiber technology and inspire further research and innovation in this exciting field.

We invite researchers and industry experts to contribute original research articles, reviews, and perspectives that explore the latest technological advancements, challenges, and future directions in Mid-IR optical fiber devices.

Research areas may include (but are not limited to) the following:

- Fiber sensors;
- Rare-earth (co-)doped fiber devices;
- Novel glasses and photonic materials;
- Nonlinear fiber devices:
- Mid-IR coherent light sources;
- All-in-fiber systems;
- Mid-IR sensing systems.



