



## Advances in Polymer Optical Fiber Sensors: Materials, Designs and Applications

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### Message from the Guest Editor

In recent years, polymer optical fibers (POFs) have gained significant attention due to their large sensitivity to external environments, biocompatibility, and easy handling, among other advantages. The use of polymers as fiber materials allows for cost-effective manufacturing and customization to meet specific sensing requirements. The purpose of this Special Issue is to present advances in fundamental research, development of technologies, as well as innovative sensing applications of POFs.

Topics of interest include, but are not limited to, theoretical and experimental original work on the following:

- POF fabrication with new materials or structures;
- Manufacturing of sensor devices;
- Intensity-based sensors;
- Phase-shift-based sensors;
- Grating-based sensors;
- Interference-based sensors;
- Optical time-domain reflectometry sensors;
- Surface plasmon resonance sensors;
- Chemical and biological sensors;
- Vital signs monitoring;
- Structural health monitoring;
- Environmental monitoring;
- Sensor networking and distributed sensing.

