



## Advances in Materials Research for Optical Fiber Technology

Guest Editor:

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submissions:

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### Message from the Guest Editor

Dear Colleagues,

Optical fibers are indispensable in modern life. Using fiber technology allows for miniaturization and compactness of passive or active optical devices, whereby the interaction length between the fiber material and light can be tailored to be from only a few millimeters up to meters or even tens of kilometers. Recent developments in high-power laser applications require low-loss, extremely homogeneously doped fiber cores with finely tailored tuned refractive index profiles. New performance limits and functionalities required for novel strategies to adapt and widen optical fiber material synthesis and technology beyond the well-established standard silica procedures. As of today, emerging strategies include alternative core material doping approaches, e.g., with nanoparticles, non-silica matrixes, and adapted preform fabrication and drawing technologies complementing standard silica fiber technology.

The aim of this special issue is to bring together recent research trends of material synthesis and fiber fabrication technology and to highlight interdisciplinary research between materials chemistry, physics, and life science.





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## Message from the Editor-in-Chief

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