



## Recent Advances in Functional Optical Glasses for Lens and Fibers: Synthesis, Modification, and Applications

Guest Editor:

### Dr. Ju Hyeon Choi

Korea Photonics Technology  
Institute (KOPTI),  
Chumdandencheo-ro 108 beon-  
gil 9, Buk-gu, Gwangju 61007,  
Korea

Deadline for manuscript  
submissions:

**closed (28 February 2022)**

### Message from the Guest Editor

This Special Issue will be devoted to recent advances in glass- and crystalline-based materials and innovative and cost-effective solutions for optics manufacturing. Original research articles and comprehensive reviews on the following and related topics are particularly welcome:

1. Innovative optical materials based on oxide glass and non-oxide glass for optical lenses
2. Crystalline materials for optical lenses, windows, domes, etc.
3. Fabrication, characterization, modelling, and applications of advanced glass optical fibers and lenses
4. Fibers for applications in sensing, optics, energy systems, healthcare, robotics, and the environment
5. Novel functional fibers, such as polymer fibers, nanofibers, multimaterial fibers, and 2D materials-based fibers
6. Specialty glass fibers incorporating rare earth ions and transition metal ions for photonic device applications
7. High-power fiber lasers for industrial and medical applications
8. Fibers doped with semiconductor-based materials and quantum dots for biophotonics applications
9. Nonlinear optical glass fibers for all-optical switches, OPA, wavelength converters, etc.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](https://twitter.com/Applsci)