Special Issue

Advancements in Photonic Crystals: Materials, Design, and Applications

Message from the Guest Editor

Photonic crystals (PCs) are periodic optical nanostructures that manipulate the flow of light by creating photonic bandgaps, enabling unprecedented control over electromagnetic waves. These materials have revolutionized photonics, offering applications in lasers, sensors, optical communications, and quantum technologies. By engineering their bandgap properties, PCs can confine, guide, or filter light at desired wavelengths, paving the way for next-generation optoelectronic devices. This Special Issue, "Advancements in Photonic Crystals: Materials, Design, and Applications", seeks high-quality contributions on recent breakthroughs in PC research. Topics of interest include, but are not limited to, the following:

- Fundamental physics of photonic crystals;
- Novel materials for photonic crystals;
- Advanced design and optimization methods for photonic crystals;
- Theoretical and computational modeling of photonic band structures;
- Photonic crystal devices and integrated photonics;
- Biophotonics and medical applications;
- Quantum and nonlinear photonic crystals.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

Editor-in-Chief

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