

State-of-the-Art in Optical Materials

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Message from the Guest Editors

Research at the forefront of optical technology has led to the development of new material configurations that can be fabricated into circuits and structures, including planar nanophotonics and three-dimensional structures. Optical nonlinearities are of particular interest for generating light, particularly at otherwise difficult to reach wavelengths, and in non-centrosymmetric crystals, where the refractive index can be electro-optically reconfigured for programmable control.

This Special Issue aims to present the state-of-the-art research in optical materials, from novel materials and fabrication techniques, to functional and multi-component optical devices, with applications ranging from light generation and detection, to sensing, storage and control. The topics include, but are not limited to, the following:

- Nonlinear materials
- Two-dimensional materials
- Photonic crystals
- Metamaterials/metasurfaces
- Phase-change materials
- Novel fabrication techniques
- Biodegradable materials for photonics

