



Diffraction Optics – Current Trends and Future Advances

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Message from the Guest Editors

Diffraction optics manipulates light using diffraction patterns, unlike traditional optical elements which use refractive surfaces. The use of diffraction optics enables high-precision control over the phase and amplitude of light, thereby allowing the creation of complex optical structures that can perform functions that cannot be achieved easily with traditional optics. Overall, diffraction optics offer a powerful tool for controlling the behavior of light and has enabled the development of a wide range of advanced optical systems and technologies. Its ability to provide more efficient, precise, and flexible optical components will definitely lead to a continued expansion of its applications in the future.

The objective of this Special Issue of *Photonics* seeks contributions dealing with recent advances in the field of diffraction optics. Topics will include, but are not limited to, the key aspects of diffraction optics technology such as theory, design, fabrication, testing, and different applications in laser beam shaping, holography, imaging, sensing, optical communication, display, optical data storage, laser processing.

