

Special Issue

Advances in Optical Precision Manufacturing and Processing

Message from the Guest Editors

The field of optical precision manufacturing and processing has rapidly advanced in response to growing demands for high-performance optical components in photonics, biomedical sensing, imaging, and quantum technologies. Innovations in nanofabrication, ultra-precision machining, metrology, and functional materials now enable unprecedented control over optical properties at micro- and nanoscales.

This Special Issue, *“Advances in Optical Precision Manufacturing and Processing”*, aims to highlight cutting-edge progress in the design, fabrication, metrology, and integration of optical elements and systems, with an emphasis on bridging fundamental research and industrial applications. We welcome original research and reviews on topics including: advanced optical manufacturing (e.g., ultra-precision machining, freeform optics, additive processes); micro-nano fabrication (multi-photon and nanoimprint lithography, metasurfaces, photonic crystals); precision metrology and inspection; system integration and opto-mechanical design; functional materials; AI-driven optimization; and applications in imaging, sensing, quantum, and AR/VR.

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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.

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