Special Issue

Design and Applications of Optical Microscopes

Message from the Guest Editors

As a commonly employed tool in life science and biomedical research, optical microscopy possesses a number of advantages, such as a high resolution, high sensitivity with a wealth of contrast mechanisms, and low damage impacts on the samples. Various optical system designs have promoted great advances in optical imaging, and structural and functional imaging could now be achieved at a high time–space scale. For application in life science exploration, timely disease diagnosis and superior treatment, optical microscopy has been developed, on the one hand, for achieving deeper analysis with high temporal and spatial resolutions. On the other hand, optical microscopy has been designed to be more controllable, compact and smart for use. This Special Issue focuses on original state-of-the-art research on optical microscopy and its applications. Both original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Confocal microscopy;
- Adaptive optics in optical microscopy;
- Fiber-based endoscopy;
- Metasurfaces for microscopy;
- Spatial light modulation and PSF engineering for microscopy

Guest Editors

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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.

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