

## Special Issue

# Nanophotonics and Metasurfaces for Optical Manipulation

### Message from the Guest Editors

The rapid evolution of nanophotonics has opened new horizons in optical manipulation, enabling capabilities far beyond those of conventional optical tweezers. Nanophotonic platforms, spanning high-Q dielectric metasurfaces, plasmonic nanoantennas, and hybrid photonic architectures, have provided powerful strategies for engineering strongly confined electromagnetic fields and tailored momentum transfer at deeply subwavelength scales.

The integration of nanophotonics with optofluidics has catalyzed the emergence of novel nanotweezer paradigms based on field enhancement, thermally mediated forces, and gradient-engineered energy landscapes. The convergence of metasurfaces, near-field optical forces, and optofluidic engineering is driving rapid progress across biosensing, soft-matter physics, nanomanufacturing, quantum technology, and lab-on-chip systems.

This Special Issue invites contributions that advance the fundamental physics, device concepts, experimental techniques, and emerging applications of nanophotonic optical manipulation. We welcome original research articles, review papers, and short communications.

We look forward to receiving your contributions.

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### Guest Editors

Dr. Sen Yang

Dr. Xingguang Liu

Dr. Chuchuan Hong

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### Deadline for manuscript submissions

31 October 2026



## Photonics

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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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### Editor-in-Chief

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