

Special Issue

New Insights in Integrated Quantum Photonics

Message from the Guest Editor

Integrated quantum photonic circuits are revolutionizing the generation, guidance, and manipulation of quantum states of light. Combining quantum optics with scalable semiconductor fabrication, they offer unmatched precision, stability, and scalability for compact, chip-scale quantum systems.

Their compatibility with mature semiconductor processes enables mass-production, bridging research and application in secure quantum communication, quantum-enhanced sensing, and quantum networks.

This Special Issue, “New Insights in Integrated Quantum Photonics”, welcomes cutting-edge research, including:

- Design, fabrication, and characterization of quantum light sources and detectors.
- Integrated photonic circuits for quantum communication, computation, and sensing.
- Quantum state generation, manipulation, and measurement.
- Studies on quantum frequency combs, photonic entanglement, and non-classical interference.
- Experimental validation of quantum photonic technologies in real-world scenarios.

Guest Editor

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About the Journal

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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