



## Emerging Trends in Silicon Photonics

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### Message from the Guest Editor

Dear Colleagues,

Recently, there have been many advances in the field of optics and photonics. Among these fields, quantum optics, optical communication, sensors, cryptography, and telecommunications have seen remarkable strides. To make these advancements faster and more effective, it is crucial to connect optical and electronic technologies. Silicon photonics emerges as a dynamic solution to this challenge and offers a method for faster, smaller, and more energy-saving devices and systems. By integrating photonics with silicon-based electronics, we can leverage the scalability, manufacturability, and cost-effectiveness of silicon technology while harnessing the unique optical properties of photons.

This Special Issue aims at presenting original state-of-the-art research articles dealing with photonic designs and devices based on silicon. Researchers are invited to submit their contributions to this Special Issue. Topics include, but are not limited to, the following: silicon photonics, optoelectronics, integrated photonics, nanophotonics, biophotonics, communication systems, sensing, imaging, quantum photonics, quantum computers, on-chip light sources and detectors.

