Chip-integrated photonics

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Abstract

Chip-integrated photonics parallels in many ways the revolution brought about by chipintegrated electronic circuits. Instead of conducting current, photonic integrated circuits guide light and enable the implementation of complex optical setups on the micrometer scale, including low-noise lasers, amplifiers, and light frequency converters. Owing to their small size and tight light confinement, light sources with unique properties can be created, complementing existing laser systems in sensing, data processing, and quantum light generation. They can be used in demanding scientific applications while their inherent compactness and scalability also opens opportunities for the widespread use of this technology beyond academic laboratories.

Please provide 5 keywords in alphabetical order separated with semicolons, not includet in the title !

Example

Keywords: Microresonators; Nanofabrication; Quantum light; Ultrafast laser; Waveguides