Advances in Silicon Photonics Technology

We chart the generational trends in silicon photonics technology, drawing parallels from the generational definitions of CMOS technology. We identify the crucial challenges that must be solved to make giant ...

The purpose of this Special Issue is to introduce the development of novel chip-scale technologies, novel devices and novel materials compatible with silicon photonics and its new ...

Silicon photonics (SiP) has rapidly evolved from data-communication technology into a broadly enabling platform for modern physics and engineering.

Photonics is the science and technology of generating, controlling, and detecting photons--particles of light. It underpins a wide range of modern technologies, from fiber-optic communications and lasers ...

MIT researchers demonstrated an advanced silicon-photonics chip-based system that could enable compact, durable, solid-state, high-performance lidar sensors for autonomous vehicles ...

Breakthroughs include field-tested photonic-crystal lasers for free-space data transmission, a silicon-photonics lidar chip with a wider field of view, and a programmable photonic circuit that ...

By integrating photonics and electronics within a shared architecture, SiP stands to revolutionize the next generation of quantum-aware, perception-enabled, and energy-conscious ...

Photonics Spectra is a global photonics resource and magazine with news, products, research, and applications covering optics, lasers, imaging, and sensing.

Uncover the latest and most impactful research in Silicon Photonics. Explore pioneering discoveries, insightful ideas and new methods from leading researchers in the field.

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