Optics & Photonics

GDR Telecom Site Energy Systems

Pluggable phase change materials for optical modules

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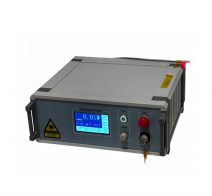
The last decade has witnessed a vast interest in utilizing this material family for optics and photonics, given their large refractive index modulation, nonvolatility—elusive in optics—and ...

One major project, NEUROPULS, is developing ultra-low-loss non-volatile phase shifters and Mach-Zehnder interferometers (MZIs) using GeSe-based PCMs, which exhibit extremely small optical ...

Phase-change materials (PCMs) have been growing in interest over the last decade for photonic applications. In this article, we will firstly review their properties and their key benefits with respect to ...

Phase Change Materials (PCMs) have demonstrated tremendous potential as a platform for achieving diverse functionalities in active and reconfigurable micro-nanophotonic devices across ...

This review seeks to highlight the progress thus far made in on-chip devices derived from phase change materials including memory devices, ...



This paper introduces a plasmonic waveguide reconfigurability framework founded on the incorporation of phase-change materials (PCMs) with the aim of developing dynamic and efficient ...

This material exhibits excellent wetting at interfaces during typical operating temperature ranges, resulting in very low surface contact resistance. Honeywell RTM-X22 Pluggable TIM for pluggable ...

Chalcogenide phase-change materials (PCMs) have been a key component in various iterations of optical disk technologies and intensely ...

Abstract: O-PCMs uniquely offer exceptionally large refractive index modulation with minimal loss penalty, made possible through a dielectric-dielectric structural transition. Here we discuss our recent ...

PCMs have injected new life into on-chip photonic integrated circuits, which generally contain an optical switch, an optical logical gate, and an optical modulator.

Here, the authors introduce optical phase change materials based on Ge-Sb-Se-Te which breaks the coupling between refractive index and optical loss allowing low-loss performance ...

Contact Us

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