

REVIEW OF INTEGRATED OPTICS

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Abstract

The primary long-range objective of integrated optics is to carry out system logic functions of high-data-rate, single-mode optical fiber communication systems. Much progress was made in the past years in the fabrication of optical waveguides and in the demonstration of individual components, such as couplers, laser sources, modulators, and detectors. But there is an urgent need to know how to interconnect various components together and how to carry out signal processing in integrated optical waveguides. This talk will give a brief review of the development of individual components, but will emphasize recent progress made in the interconnection of thin film waveguide components, in the fabrication of monolithic integrated optical circuits, and in switching and signal processing in optical waveguides.