Abstracts

Large Bandwidth Optical Modulators Utilizing Millimeter Wavelength Drivers

A.E. Popa, T.K. Plant and R.E. Johnson. "Large Bandwidth Optical Modulators Utilizing Millimeter Wavelength Drivers." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 124-126.

This paper describes the research and development effort under way at Hughes Research Laboratories (HRL) to design, fabricate, and test infrared traveling-wave modulators that can be excited by millimeter-wavelength drivers. The modulators are designed for eventual use in high-data-rate communication systems and for laser wave-length shifting in isotope separation experiments. These programs have demonstrated that millimeter-wavelength excited infrared modulators have the potential to advance the state of the art for optical modulation bandwidth by a factor of three and reduce driver power by at least an order of magnitude.

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