Abstracts

Low-Loss Two-Dimensional GaAs Epitaxial Waveguides at 10.6-µm Wavelength

B.L. Sopori, W.S.C. Chang and R. Vann. "Low-Loss Two-Dimensional GaAs Epitaxial Waveguides at 10.6-µm Wavelength." 1974 Transactions on Microwave Theory and Techniques 22.7 (Jul. 1974 [T-MTT]): 754-755.

The successful fabrication of low-loss two-dimensional GaAs epitaxial waveguides by chemical etching for use in integrated optics at 10.6 µm is reported. Selective excitation of specific E/sub pq//sup y/ modes was observed by placing the prism at specific angles in the horizontal plane. Loss measurements showed no increase in attenuation for lower order E/sub pq//sup y/ modes (as compared to corresponding one-dimensional waveguide modes) when the guide width is 50 µm. As the guide width is reduced, there is a significant increase in attenuation as p increases.

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