Abstracts

Buried Convex Waveguide Structure (GaAl)As Injection Lasers

K. Shima, K. Hanamitsu and M. Takusagawa. "Buried Convex Waveguide Structure (GaAl)As Injection Lasers." 1982 Transactions on Microwave Theory and Techniques 30.10 (Oct. 1982 [T-MTT] (Special Issue on Optical Guided Wave Technology)): 1676-1683.

The fabrication technique, analysis of the waveguide property, lasing characteristics of buried convex waveguide structure (BCS) lasers are described. An improved BCS laser structure having a truncated convex active region was produced by using a novel selective etching technique. It was found that the truncated convex waveguide is very effective in suppressing higher order mode king when compared with a convex waveguide. The improved BCS lasers showed stable fundamental transverse mode lasing up to 20 mW/facet, typical threshold current of 20 mA, an external differential quantum efficiency of 28 percent/facet.

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