Abstracts

Radiating Leaky-Mode Losses in Single-Mode Lightguides with Depressed-Index Claddings

L.G. Cohen, D. Marcuse and W.L. Mammel. "Radiating Leaky-Mode Losses in Single-Mode Lightguides with Depressed-Index Claddings." 1982 Transactions on Microwave Theory and Techniques 30.10 (Oct. 1982 [T-MTT] (Special Issue on Optical Guided Wave Technology)): 1455-1460.

Cutoff characteristics are calculated for the fundamental mode in a single-mode double-clad lightguide structure whose refractive index in the inner cladding is less than the index of the outer cladding. Results of this study indicate how to choose the proper depressed cladding width, depth in order to reduce long-wavelength losses that have been observed in experimental MCVD fibers with fluorine-doped phosphosilicate claddings.

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