Abstracts

Practical Three-Dimensional Profiling of Optical Fiber Preforms

P.-L. Francois, I. Sasaki and M.J. Adams. "Practical Three-Dimensional Profiling of Optical Fiber Preforms." 1982 Transactions on Microwave Theory and Techniques 30.4 (Apr. 1982 [T-MTT] (Joint Special Issue on Optical Guided Wave Technology)): 370-381.

The spatial filtering technique has been used in the practical implementation of three-dimensional profile reconstruction for preforms of arbitrary cross section. An interpolation algorithm has been developed which enables accurate three-dimensional profiles to be obtained with a relatively modest number of azimuthal projections of the preform. With the aid of this algorithm it has been found, for both simulated and measured profiles, that for the majority of near-circular preforms only three projections need to be used; the storage requirements are now within the range of a minicomputer and the procedure is thus a practical tool for routine preform assessment.

❑ Return to main document.