

Polymer optical waveguides based on wet-chemical fabrication process

Abstract

The wet-chemical fabrication process of BenzoCyclobutene (BCB 4024-40) polymer waveguides are described. The method of prism coupling is adopted in the characterization process of the polymer film. A cost effective chemical etching technique is used in the waveguide fabrication process to take advantage of the photosensitive nature of the polymer. The waveguide loss is measured using the conventional cut back method which results on an average loss of 3.5 dB/cm.