

PUBLISHED PAPER

Journal: Microwave and Optical Technology Letters

Paper: Brillouin gain spectrum tailoring technique by using fiber concatenation and train for fiber devices

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Abstracts:

A technique to develop all-fiber devices based on the customization of Brillouin gain spectrum is proposed in this article. It is based on the proper concatenation and elongation of optical fibers. To check experimentally the proposed technique, an optical device with a π -like W stimulated Brillouin scattering shape was implemented. Our experiment shows a bandwidth of 219 MHz with two reject bands placed at 10.7855 and 10.876 GHz, respectively, from the pump wavelength. Optical devices such as Brillouin amplifiers or Brillouin filters can be developed using the proposed technique. VC 2010 Wiley Periodicals, Inc. Microwave Opt Technol Lett 52: 787–790, 2010; Published online in Wiley InterScience (www.interscience.wiley.com). DOI 10.1002/mop.25033