عنوان مقاله:

Multiple Wavelength Laser Source Generation Using a Bismuth-Based Erbium-Doped Fiber in a Linear Cavity

محل انتشار:

هفدهمین کنفرانس اپتیک و فوتونیک ایران و سومین کنفرانس مهندسی فوتونیک ایران (سال: 1389)

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خلاصه مقاله:

A compacted optical amplifier is demonstrated for multi-wavelength laser source generation in a linear cavity. A 25 km single mode fiber (SMF) is used as the non-linear Brillouin gain medium for the generation of Brillouin Stokes whereas a 2.15 m of Bismuth-based Erbium doped fiber (Bi-EDF) is used to yield Bi-EDF optical amplifier for the cascaded multi-wavelength generation. Unlike conventional multi-wavelength Brillouin/Erbium fiber laser systems, Brillouin pump seed wavelength is near but out of the free-running Bi-EDFA wavelength region. However, the number of the .lines is about 20 more due to using simultaneously Raman and EDF amplification

کلمات کلیدی:

Stimulated Brillouin Scattering, Raman amplifier, Erbium-Doped Amplifier, Multiple wavelength generation