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عنوان مقاله:

Effectiveness of nonlinear amplifying loop mirrors in switchable wavelength spacing multi-wavelength Brillouin-Raman fiber laser

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خلاصه مقاله:

A new arrangement for 10 and 20 GHz spacing Brillouin-Raman fiber laser that permits efficient exploitation of nonlinear amplifying loop mirror (NALM) is presented. The design is based on a distributed Raman amplification together with different ratio of couplers inside the loop. Its detailed theoretical analysis is developed that represents a good foundation in which this operation is fulfilled. By proper modifications of splitting ratio, the wavelength interval can be adjusted, thus improving the laser performance. From the obtained results, employment 50/50 and 98/2 couplers offer 10 and 20 GHz spacing between Stokes lines, respectively

كلمات كليدى:

Nonlinear optics, Stimulated Raman scattering, Stimulated Brillouin scattering

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