Abstract

Moustafa Hussein Aly

Tunable Multi-wavelength Erbium Doped Laser Using Cascaded Apodized Fiber Bragg Gratings

A novel tunable multi-wavelength laser using an erbium doped fiber (EDF) as a gain medium is proposed theoretically. The laser source is terminated by a chirped fiber Bragg grating (CFBG) on one side and cascaded apodized FBGs on the other side. Three and five-wavelength tunable EDF laser (EDFL) are demonstrated using applied strains and temperature variations to tune the lasing wavelengths.