

**Docket #:** S06-165

# **Generation and application of asymmetric Fabry-Perot resonances**

A method for utilizing an optical resonator, the method comprising: providing an optical resonator comprising a reflective element and an optical fiber positioned relative to the reflective element such that light emitted from the optical fiber is reflected by the reflective element, wherein the optical resonator has an optical resonance with a resonance lineshape that is asymmetric as a function of wavelength, wherein the resonance lineshape has a minimum reflectivity at a resonance wavelength, a first side with wavelengths below the resonance wavelength, and a second side with wavelengths above the resonance wavelength, the second side less steep than the first side; emitting a first light signal from the optical fiber and reflecting the first light signal from the reflective element, the first light signal having a first wavelength on the first side of the resonance lineshape; and emitting a second light signal from the optical fiber and reflecting the second light signal from the reflective element, the second light signal having a second wavelength on the second side of the resonance lineshape.

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## **Patents**

- Published Application: [WO2007130152](#)
- Published Application: [20080034866](#)
- Published Application: [20110088470](#)
- Published Application: [20120182557](#)
- Published Application: [20130141729](#)
- Issued: [7,881,565 \(USA\)](#)
- Issued: [8,139,227 \(USA\)](#)
- Issued: [8,373,865 \(USA\)](#)

- Issued: [8,537,368 \(USA\)](#)

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