

ABSTRACT OF THE DISCLOSURE

A tunable laser (100), comprising: a channel selection assembly (20), a plurality of optical amplifiers (10), a micro-ring filtering assembly (30) and a reflection assembly (40). The micro-ring filtering assembly (30) is coupled to the reflection assembly (40); working wavelength ranges of the optical amplifiers (10) are different; the channel selection assembly (20) is used for selecting any optical amplifier (10) to input a gain optical signal to the micro-ring filtering assembly (30); the micro-ring filtering assembly (30) is used for filtering the gain optical signal under a vernier caliper effect to obtain filtered optical signals, and then inputting same into the reflection assembly (40); the reflection assembly (40) is used for outputting some of the filtered optical signal outwards, and reflecting, after the remaining optical signals pass through the micro-ring filtering assembly (30), the remaining optical signals to an optical amplifier (10) currently selected by the channel selection assembly (20). Therefore, a wavelength range of laser tuning is large.

FIG. 1