

ABSTRACT OF THE DISCLOSURE

A laser capable of reducing the difficulty of a wavelength tuning process, a fabrication method therefor, and a laser device. The laser comprises: an active light-emitting structure (100) used for emitting light; a silicon-based structure (200) which is bonded to the active
5 light-emitting structure (100), and which comprises a silicon-based waveguide (210) and at least two composite gratings (211), wherein the composite gratings (211) are opposite to the active light-emitting structure (100) and are formed in the silicon-based waveguide (210). Each composite grating (211) comprises one primary grating and a plurality of secondary gratings (2111), the secondary gratings (2111) are periodically arranged to form the primary grating, and
10 the primary gratings in at least a portion of the composite gratings (211) have different grating periods (T) from that of the primary gratings in other composite gratings (211). The silicon-based structure (200) and the active light-emitting structure (100) form at least two laser units, and each laser unit corresponds to one composite grating (211).