

Title (en)

WAVELENGTH STABILIZED DIODE LASER MODULE WITH LIMITED BACK REFLECTION

Title (de)

WELLENLÄNGENSTABILISIERTES DIODENLASERMODUL MIT BEGRENZTER RÜCKSTRAHLUNG

Title (fr)

MODULE DE DIODE LASER À STABILISATION DE LONGUEUR D'ONDE AYANT UNE RÉFLEXION ARRIÈRE LIMITÉE

Publication

EP 3061167 A4 20170531 (EN)

Application

EP 13896025 A 20131023

Priority

US 2013066269 W 20131023

Abstract (en)

[origin: WO2015060834A1] A module is configured with a housing enclosing a diode laser. Fast and slow axes collimators are located behind the rear facet of the laser, which along with a front facet, defines an intra- cavity of the laser. The facets are partially transmissive to light and therefore emit laser light. A wavelength selective optical element is aligned with the collimators and configured to reflect light emitted through the back facet and processed by collimators back into the intra-cavity. As a result, the laser beam is emitted through the front facet at a wavelength locked on the desired wavelength of the optical element. A delivery fiber is mechanically coupled to the front facet of diode laser and configured to receive and guide the emitted laser beam along the path of light.

IPC 8 full level

H01S 5/068 (2006.01); **H01S 5/14** (2006.01); **H01S 5/00** (2006.01); **H01S 5/022** (2006.01)

CPC (source: EP)

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Citation (search report)

- [X] US 6115401 A 20000905 - SCOBEE MICHAEL A [US], et al
- [A] US 2010135350 A1 20100603 - OVTCHINNIKOV ALEX [US], et al
- [A] US 2003161379 A1 20030828 - WOLAK EDMUND L [US], et al
- [X] LIU A Q ET AL: "Single-/multi-mode tunable lasers using MEMS mirror and grating", SENSORS AND ACTUATORS A: PHYSICAL, ELSEVIER BV, NL, vol. 108, no. 1-3, 15 November 2003 (2003-11-15), pages 49 - 54, XP004475520, ISSN: 0924-4247, DOI: 10.1016/S0924-4247(03)00368-6
- See references of WO 2015060834A1

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