

Title (en)

SEAMLESSLY INTEGRATED OPTICAL WAVE GUIDE FOR LIGHT GENERATED BY A SEMICONDUCTOR LIGHT SOURCE

Title (de)

NAHTLOS INTEGRIERTER OPTISCHER WELLENLEITER FÜR DURCH EINE HALBLEITERLICHTQUELLE ERZEUGTES LICHT

Title (fr)

GUIDE D'ONDES OPTIQUES INTEGRE DE MANIERE TRANSPARENTE POUR LUMIERE PRODUITE PAR UNE SOURCE LUMINEUSE A SEMICONDUCTEUR

Publication

EP 1711850 A1 20061018 (EN)

Application

EP 05702754 A 20050122

Priority

- IB 2005050260 W 20050122
- US 53891004 P 20040123

Abstract (en)

[origin: WO2005071452A1] A seamlessly integrated hybrid optical network device. The device comprises: a semiconductor light source (10) mounted in a cavity in a silicon substrate (11), wherein the semiconductor light source (10) is fabricated from a non-silicon material; and a photonic bandgap (PBG) structure (22) seamlessly integrated with the semiconductor light source (10) to act as an optical wave guide for the photons emitted by the semiconductor light source (10), wherein the PBG structure (22) is etched directly in the silicon substrate.

IPC 8 full level

G02B 6/122 (2006.01); **G02B 6/43** (2006.01); **H01S 5/02** (2006.01); **G02B 6/12** (2006.01)

CPC (source: EP KR)

B82Y 20/00 (2013.01 - EP); **G02B 6/122** (2013.01 - KR); **G02B 6/1225** (2013.01 - EP); **G02B 6/43** (2013.01 - KR)

Citation (search report)

See references of WO 2005071452A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005071452 A1 20050804; CN 1910487 A 20070207; EP 1711850 A1 20061018; JP 2007519049 A 20070712; KR 20060132658 A 20061221

DOCDB simple family (application)

IB 2005050260 W 20050122; CN 200580002870 A 20050122; EP 05702754 A 20050122; JP 2006550437 A 20050122; KR 20067014759 A 20060721