

Title (en)  
LASER ARCHITECTURES

Title (de)  
LASERARCHITEKTUREN

Title (fr)  
ARCHITECTURES LASER

Publication  
**EP 2834890 A1 20150211 (EN)**

Application  
**EP 13772122 A 20130405**

Priority  
• US 201261621067 P 20120406  
• US 201313764770 A 20130211  
• US 2013035485 W 20130405

Abstract (en)  
[origin: WO2013152310A1] Disclosed herein are architectures for an external cavity laser. In some embodiments, the external cavity laser includes vertical cavity surface emitting laser (VCSEL) elements, a Brewster plate, frequency doubling chips, and a microlens array. The Brewster plate is arranged at an angle relative to the light path, and is configured to polarize at least the light received from the VCSELs and propagating on the light path in a first direction, and extract, from the external cavity, frequency-doubled light propagating on the light path in a second direction opposite to the first direction. The doubling chips are operable to receive the light and double the frequency of a portion of the received light. The microlens array is aligned with the VCSEL elements. A mount may be employed to mount the side stack of doubling chips by either side mounting or end mounting.

IPC 8 full level  
**H01S 5/14** (2006.01); **H01S 3/109** (2006.01); **H01S 5/42** (2006.01); **G02F 1/35** (2006.01); **H01S 3/08** (2006.01); **H01S 5/024** (2006.01); **H01S 5/183** (2006.01)

CPC (source: EP)  
**H01S 3/109** (2013.01); **H01S 5/141** (2013.01); **H01S 5/423** (2013.01); **H01S 3/08054** (2013.01); **H01S 5/02446** (2013.01); **H01S 5/183** (2013.01)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2013152310 A1 20131010**; CN 104364984 A 20150218; EP 2834890 A1 20150211; EP 2834890 A4 20151216; KR 20140140637 A 20141209; RU 2014144472 A 20160527

DOCDB simple family (application)  
**US 2013035485 W 20130405**; CN 201380029977 A 20130405; EP 13772122 A 20130405; KR 20147030739 A 20130405; RU 2014144472 A 20130405