

Title (en)

LASER PUMP ARRANGEMENT AND LASER PUMP METHOD WITH BEAM HOMOGENIZATION

Title (de)

LASERPUMPANORDNUNG UND LASERPUMPVERFAHREN MIT STRAHLHOMOGENISIERUNG

Title (fr)

ARRANGEMENT DE POMPAGE LASER ET PROCÉDÉ DE POMPAGE LASER AVEC HOMOGÉNÉISATION DU RAYON

Publication

**EP 2359444 A1 20110824 (DE)**

Application

**EP 09744705 A 20091106**

Priority

- EP 2009064761 W 20091106
- EP 08168736 A 20081110
- EP 09744705 A 20091106

Abstract (en)

[origin: EP2184818A1] The arrangement has an optical coupling unit (2) provided between a laser-pump source (1) and a homogenizer (3). The optical coupling unit is designed such that partial pump radiations are projected or focused directly on or in a laser radiation-amplifying laser medium (4) in a projection direction perpendicular to a through-mixing direction (DA). The homogenizer and the laser medium are designed such that a pump beam emergent from the homogenizer are directly guided on or into the laser medium under beam spread angle preservation for the through-mixing direction. Independent claims are also included for the following: (1) a laser system comprising a resonator for amplifying laser radiation (2) a laser pump method for generating elliptical pump geometry for a laser radiation-amplifying laser medium.

IPC 8 full level

**H01S 3/0941** (2006.01); **G02B 27/09** (2006.01); **H01S 3/06** (2006.01)

CPC (source: EP US)

**G02B 19/0014** (2013.01 - EP US); **G02B 19/0057** (2013.01 - EP US); **G02B 27/0994** (2013.01 - EP US); **H01S 3/09415** (2013.01 - EP US);  
**H01S 3/0612** (2013.01 - EP US); **H01S 3/0621** (2013.01 - EP US); **H01S 3/0625** (2013.01 - EP US); **H01S 3/094057** (2013.01 - EP US);  
**H01S 3/0941** (2013.01 - EP US); **H01S 5/4012** (2013.01 - EP US)

Citation (search report)

See references of WO 2010052308A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

**EP 2184818 A1 20100512**; CN 102246366 A 20111116; CN 102246366 B 20150415; EP 2359444 A1 20110824; US 2012033704 A1 20120209;  
US 8750344 B2 20140610; WO 2010052308 A1 20100514

DOCDB simple family (application)

**EP 08168736 A 20081110**; CN 200980149416 A 20091106; EP 09744705 A 20091106; EP 2009064761 W 20091106;  
US 200913128469 A 20091106