

Title (en)  
LASER AMPLIFIER SYSTEM

Title (de)  
LASERVERSTÄRKERSYSTEM

Title (fr)  
SYSTÈME AMPLIFICATEUR LASER

Publication  
**EP 2165395 A2 20100324 (DE)**

Application  
**EP 08760802 A 20080610**

Priority  
• EP 2008057243 W 20080610  
• DE 102007029257 A 20070615

Abstract (en)  
[origin: WO2008152041A2] The invention relates to a laser amplifier system comprising a solid element thermally coupled to a heat sink that has a laser-active volume area in which at least one respective laser-active quantum structure made of semiconducting material is arranged on several parallel surfaces and in which the quantum structures are separated from one another by means of barrier structures, a pump radiation source that generates a pump radiation field, and an amplifier lens system that defines a laser amplifier radiation field. In order to improve said laser amplifier system in such a way that the quantum structures can be arranged in a less accurate manner, the quantum structures form at least one group, within which the barrier structures located between two of the quantum structures are designed as tunnel barrier structures and allow charge carriers to be tunneled between the quantum structures bordering said tunnel barrier structures.

IPC 8 full level  
**H01S 5/343** (2006.01); **H01S 5/183** (2006.01)

CPC (source: EP)  
**B82Y 20/00** (2013.01); **H01S 5/18375** (2013.01); **H01S 5/024** (2013.01); **H01S 5/041** (2013.01); **H01S 5/14** (2013.01); **H01S 5/18377** (2013.01); **H01S 5/3416** (2013.01); **H01S 5/34313** (2013.01)

Citation (search report)  
See references of WO 2008152041A2

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA MK RS

DOCDB simple family (publication)  
**DE 102007029257 A1 20081218**; EP 2165395 A2 20100324; WO 2008152041 A2 20081218; WO 2008152041 A3 20090625

DOCDB simple family (application)  
**DE 102007029257 A 20070615**; EP 08760802 A 20080610; EP 2008057243 W 20080610