

Title (en)

METHOD AND APPARATUS FOR USE IN PASSIVE Q-SWITCHING

Title (de)

VERFAHREN UND VORRICHTUNG ZUR VERWENDUNG IN EINER PASSIVEN Q-SCHALTUNG

Title (fr)

PROCÉDÉ ET APPAREIL UTILISABLE DANS LA COMMUTATION DU FACTEUR DE QUALITÉ PASSIVE

Publication

**EP 2792034 A1 20141022 (EN)**

Application

**EP 12810412 A 20121212**

Priority

- GB 201121379 A 20111212
- GB 2012053103 W 20121212

Abstract (en)

[origin: GB2497549A] A method for use in controlling a passively Q-switched laser apparatus 120 comprising: triggering pumping of a passively Q-switched laser apparatus 120 at a pump trigger time, measuring an emission delay between the pump trigger time and a time of emission of a Q-switched optical pulse from the laser apparatus 120; using the measured emission delay and a target time for the emission of a further Q-switched optical pulse from the laser apparatus to determine a further pump trigger time. The method may be used for improving the timing of emission of Q switched optical pulses and may, in particular, serve to suppress pulse-to-pulse timing jitter in particular, though not exclusively, for laser target designation. Also disclosed are a controller 140 and a programmable controller 140, in communication with an optical detector 144 and the pump 130 (via pump driver 132) for performing the above method. Further disclosed is a passively Q-switched laser apparatus comprising: a pump 130 for pumping a passively Q-switched laser apparatus 120; an optical detector 144 and a controller 140, where the controller performs the above method.

IPC 8 full level

**H01S 3/113** (2006.01); **H01S 3/0941** (2006.01); **H01S 3/13** (2006.01); **H01S 3/131** (2006.01)

CPC (source: EP GB)

**H01S 3/0014** (2013.01 - GB); **H01S 3/0912** (2013.01 - GB); **H01S 3/11** (2013.01 - GB); **H01S 3/113** (2013.01 - EP); **H01S 3/1312** (2013.01 - EP); **H01S 3/0941** (2013.01 - EP); **H01S 3/10046** (2013.01 - EP); **H01S 3/1305** (2013.01 - EP); **H01S 3/1611** (2013.01 - EP); **H01S 3/1643** (2013.01 - EP)

Citation (search report)

See references of WO 2013088139A1

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

DOCDB simple family (publication)

**GB 201121379 D0 20120125**; **GB 2497549 A 20130619**; EP 2792034 A1 20141022; WO 2013088139 A1 20130620

DOCDB simple family (application)

**GB 201121379 A 20111212**; EP 12810412 A 20121212; GB 2012053103 W 20121212