

Title (en)

SOLID-STATE LASER GYRO HAVING ORTHOGONAL COUNTER-PROPAGATING MODES

Title (de)

HALBLEITER-LASER-KREISEL MIT ORTHOGONALEN, SICH ENTGEGENGESETZT AUSBREITENDEN MODEN

Title (fr)

GYROLASER A ETAT SOLIDE A MODES CONTRE-PROPAGATIFS ORTHOGONAUX

Publication

EP 1960737 A1 20080827 (FR)

Application

EP 06830453 A 20061207

Priority

- EP 2006069449 W 20061207
- FR 0512604 A 20051213

Abstract (en)

[origin: WO2007068654A1] The invention concerns solid-state laser gyros used in inertial navigation unit. However, the design of this type of laser gyros involves some technical difficulties related partly to the fact that the counter-propagating waves interfere in the amplifying medium. The inventive laser gyro comprises at least one solid-state amplifying medium (2) and one ring optical cavity (1) including first optical means (4) enabling a first common linear polarization state to be imparted to the two counter-propagating optical waves in input and output of the zone containing the amplifying medium and second optical means (30, 31) enabling, inside the amplifying medium, a second linear polarization state to be imparted to the first optical wave and a third linear polarization state to the second optical wave, said polarization states being perpendicular, thereby eliminating all the inconveniences related to interferences.

IPC 8 full level

G01C 19/66 (2006.01)

CPC (source: EP US)

G01C 19/66 (2013.01 - EP US)

Citation (search report)

See references of WO 2007068654A1

Designated contracting state (EPC)

DE

DOCDB simple family (publication)

FR 2894662 A1 20070615; FR 2894662 B1 20080125; CN 101331382 A 20081224; EP 1960737 A1 20080827; RU 2008128484 A 20100120; US 2009116031 A1 20090507; US 7710575 B2 20100504; WO 2007068654 A1 20070621

DOCDB simple family (application)

FR 0512604 A 20051213; CN 200680047080 A 20061207; EP 06830453 A 20061207; EP 2006069449 W 20061207; RU 2008128484 A 20061207; US 9736706 A 20061207