

Title (en)

FIBRE-OPTIC INTERFEROMETER BASED ON A MONOFREQUENCY LASER SOURCE AND INTERFEROMETRY METHOD CORRECTED FOR PARASITIC REFLECTIONS

Title (de)

FASEROPTISCHES INTERFEROMETER AUF BASIS EINER MONOFREQUENZ-LASERQUELLE UND AUF PARASITÄRE REFLEXIONEN KORRIGIERTES INTERFEROMETRIEVERFAHREN

Title (fr)

INTERFÉROMÈTRE À FIBRE OPTIQUE BASÉ SUR UNE SOURCE LASER MONOFRÉQUENCE ET PROCÉDÉ D'INTERFÉROMÉTRIE CORRIGÉS DES RÉFLEXIONS PARASITES

Publication

EP 4367475 A1 20240515 (FR)

Application

EP 22737505 A 20220707

Priority

- FR 2107356 A 20210707
- EP 2022068942 W 20220707

Abstract (en)

[origin: WO2023280992A1] The invention relates to an interferometer (100) comprising a light generator (1), a fibre-optic coil (4), an optical coupler/splitter, a photodetector (5) and an electronic signal-processing system (6). The light generator (1) comprises a laser source (8) able to emit a source beam (10) split into two secondary beams (11, 12) passing through the coil with a travel time τ defining a natural frequency (A). According to the invention, the laser source (8) is a monofrequency laser source and the light generator (1) comprises modulation means (7, 9) designed to modulate the source beam (10) at a modulation frequency equal to (B), where n is an integer greater than or equal to 1, and the photodetector (5) and the electronic signal-processing system (6) are configured to acquire and process a signal representative of the interference beam (15) at a demodulation frequency equal to (C).

IPC 8 full level

G01C 19/72 (2006.01)

CPC (source: EP)

G01C 19/727 (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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2023280992 A1 20230112; EP 4367475 A1 20240515; FR 3125120 A1 20230113; FR 3125120 B1 20240119

DOCDB simple family (application)

EP 2022068942 W 20220707; EP 22737505 A 20220707; FR 2107356 A 20210707