

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

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EP 22737505 A 20220707

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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).

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