

Title (en)
COHERENCE MICROSCOPE

Title (de)
KOHÄRENZMIKROSKOP

Title (fr)
MICROSCOPE COHERENT

Publication
EP 1576405 A2 20050921 (DE)

Application
EP 03789300 A 20031216

Priority
• DE 10260887 A 20021217
• EP 0314323 W 20031216

Abstract (en)
[origin: WO2004055570A2] The invention relates to a coherence microscope which comprises a light source (1) that emits time-incoherent light. The confocal coherence microscope further comprises a divider (3) for dividing up the light emitted by the light source (1) into a measuring light which is supplied to a sample (13) and is reflected by the same, and into a reference light. A superposition device (25, 31) spatially superimposes the measuring light reflected by the sample (13) with the reference light. A linear array (41) is used to detect the light resulting from said superposition and is adapted to allow for a read-out rate of at least approximately 60 kHz. In order to obtain read-out rates of said order, especially short linear arrays (41) comprising not more than approximately 1000 sensor elements, for example CCD elements, and especially ultra-short linear arrays (41) comprising not more than approximately 500 sensor elements are used. The superposition device is provided with an emission device (25, 31) for emitting the measuring light and the reference light, which is adapted and disposed relative to the sensor array (41) in such a manner that at least a part of the sensor array (41) is irradiated with superimposed light over a prolonged period of time. The ratio of the distances covered by the measuring light and the reference light from the emission device (25, 31) to the respective point of incidence on the sensor array (41) varies in the section of the sensor array (41) that is irradiated with superimposed light.

IPC 1-7
G02B 21/00; **G01B 9/02**

IPC 8 full level
G01B 9/02 (2006.01); **G02B 21/00** (2006.01)

CPC (source: EP US)
G01B 9/02091 (2013.01 - EP US); **G02B 21/0004** (2013.01 - EP US); **G01B 2290/65** (2013.01 - EP US)

Citation (search report)
See references of WO 2004055570A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2004055570 A2 20040701; **WO 2004055570 A3 20040826**; DE 10260887 A1 20040701; EP 1576405 A2 20050921; JP 2006510932 A 20060330; US 2006056784 A1 20060316; US 7400409 B2 20080715

DOCDB simple family (application)
EP 0314323 W 20031216; DE 10260887 A 20021217; EP 03789300 A 20031216; JP 2004560435 A 20031216; US 53858705 A 20051003