Title (en)

MICROSCOPE, IN PARTICULAR LIGHT SHEET MICROSCOPE OR CONFOCAL MICROSCOPE, AND RETROFIT KIT FOR A MICROSCOPE

Title (de)

MIKROSKOP, INSBESONDERE LICHTSCHEIBEN- ODER KONFOKALMIKROSKOP UND NACHRÜSTSATZ FÜR EIN MIKROSKOP

Title (fr)

MICROSCOPE, EN PARTICULIER MICROSCOPE À FEUILLET DE LUMIÈRE OU MICROSCOPE CONFOCAL, ET ÉQUIPEMENT COMPLÉMENTAIRE POUR MICROSCOPE

Publication

EP 3494429 A1 20190612 (DE)

Application

EP 17749427 A 20170802

Priority

- DE 102016114270 A 20160802
- EP 2017069567 W 20170802

Abstract (en)

[origin: WO2018024786A1] The invention relates to a microscope (1), in particular a light sheet microscope (2) or a confocal microscope (3), and to an optical retrofit kit (150) for a microscope (1), in particular for a light sheet microscope (2) or confocal microscope (3), having illumination optics (5) for transmitting light of at least two wavelengths (27a, 27b) from at least one light source (11), along respective wavelength-dependent beam paths (23a, 23b), from an illumination side (29) of the illumination optics (5) to a specimen side (83) of the illumination optics (5). Prior art microscopes (1) exhibit a longitudinal chromatic aberration (37a) and/or a lateral chromatic aberration (37b) which reduce the imaging quality of the microscope (1). The microscope (1) and the optical retrofit kit (150) according to the invention solve this problem in that the microscope (1) and optical retrofit kit (150) comprise a lateral chromatic correction system (65) with at least one optical lateral chromatic correction element (67), wherein the beam paths (23a, 23b) of the at least two different wavelengths (27a, 27b) have, at the output (84) of the lateral chromatic correction element (65) on the specimen side, a parallel offset (43) relative to each other and/or are inclined relative to each other in relation to the illumination side (29), causing on the specimen side (83) of the illumination optics (5) an offset (43) between the focal points (31a, 31b) of the at least two wavelengths (27a, 27b) transversely to an optical axis (41) of the illumination optics (5).

IPC 8 full level

G02B 21/00 (2006.01); **G01N 21/64** (2006.01); **G02B 21/36** (2006.01); **G02B 27/00** (2006.01)

CPC (source: EP US)

G01N 21/6458 (2013.01 - US); **G02B 21/0032** (2013.01 - EP US); **G02B 21/0076** (2013.01 - EP US); **G02B 21/367** (2013.01 - EP US); **G02B 27/0031** (2013.01 - EP US); **G02B 27/0037** (2013.01 - EP US); **G02B 27/0068** (2013.01 - EP US)

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

DOCDB simple family (publication)

WO 2018024786 A1 20180208; EP 3494429 A1 20190612; JP 2019523456 A 20190822; JP 7184752 B2 20221206; US 11048078 B2 20210629; US 2019258052 A1 20190822

DOCDB simple family (application)

EP 2017069567 W 20170802; EP 17749427 A 20170802; JP 2019505385 A 20170802; US 201716322157 A 20170802