

Title (en)

INCLINED-PLANE MICROSCOPE HAVING IMPROVED COLLECTION EFFICIENCY

Title (de)

SCHIEFE EBENEMIKROSKOP MIT VERBESSERTER SAMMELEFFIZIENZ

Title (fr)

MICROSCOPE À PLAN INCLINÉ AYANT UNE EFFICACITÉ DE COLLECTE AMÉLIORÉE

Publication

EP 4133322 A1 20230215 (DE)

Application

EP 21718825 A 20210408

Priority

- DE 102020204615 A 20200409
- EP 2021059204 W 20210408

Abstract (en)

[origin: WO2021204956A1] The invention relates to an inclined-plane microscope (101) comprising: a detection assembly (103) for collecting scattered light and/or fluorescent light (105) from regions (109) of a sample volume (111) that are illuminated by a light sheet (107), the detection assembly (103), on its side (113) facing away from the sample volume (111), imaging a real intermediate image (115) of the regions (109) of a sample (111b), and the real intermediate image (115) being tilted in relation to a focal plane (117) of the detection assembly (103); and an optical alignment unit (119) for imaging a predefined image field (121) of the real intermediate image (115) onto a detector (123), the alignment unit (119) having a depth-of-field region (129). The invention also relates to a method which uses such an inclined-plane microscope (101). Known solutions are limited in terms of positioning between the detection assembly (103) and the alignment unit (119), and replacing the detection assembly (103) and/or the alignment unit (119) is not readily possible. This is improved by a focal plane (125) of the alignment unit (119) being tilted by an offset angle (127) in relation to the intermediate image (115), and by the predefined image field (121) of the real intermediate image (115) lying completely in the depth-of-field region (129).

IPC 8 full level

G02B 21/00 (2006.01); **G02B 21/36** (2006.01)

CPC (source: EP US)

G02B 21/0032 (2013.01 - EP US); **G02B 21/0076** (2013.01 - US); **G02B 21/367** (2013.01 - EP US); **G02B 21/0076** (2013.01 - EP)

Citation (search report)

See references of WO 2021204956A1

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)

DE 102020204615 A1 20211014; EP 4133322 A1 20230215; US 2023185068 A1 20230615; WO 2021204956 A1 20211014

DOCDB simple family (application)

DE 102020204615 A 20200409; EP 2021059204 W 20210408; EP 21718825 A 20210408; US 202117917003 A 20210408