

Title (en)
DEVICE AND METHOD FOR HIGH-INTENSITY UNIFORM ILLUMINATION WITH MINIMAL LIGHT REFLECTION FOR USE IN MICROSCOPES

Title (de)
VORRICHTUNG UND VERFAHREN ZUR LICHTSTARKEN HOMOGENEN BELEUCHTUNG MIT MINIMISIERTEN LICHTREFLEXEN ZUR ANWENDUNG IN MIKROSKOPEN

Title (fr)
DISPOSITIF ET PROCÉDÉ D'ILLUMINATION HOMOGENE À GRANDE LUMINOSITÉ ET À MINIMISATION DES REFLETS LUMINEUX POUR L'UTILISATION DANS DES MICROSCOPES

Publication
EP 2010953 A1 20090107 (DE)

Application
EP 07722192 A 20070413

Priority
• DE 2007000634 W 20070413
• DE 102006018721 A 20060420

Abstract (en)
[origin: WO2007121705A1] The invention relates to a device for high-intensity uniform illumination with minimal light reflection for use in reflective-type microscopes. Said invention is characterised by a light source (1) with a uniform emission and the following components, arranged in succession in the emission direction: a lens combination (2) with a short focal length, said length $f_{₁}$ being adjusted in such a way that the light source is projected to infinity; a rectangular diaphragm aperture (3), which is located on the rear plane of said lens combination, the Fourier plane of the lens combination being situated on said plane; an additional lens (4) with a focal length $f_{₂}$, through which the rectangular diaphragm aperture (3) is projected onto the intermediate image plane (6) of the microscope; and a circular diaphragm (5), onto which the light source (1) is projected in sharp focus and which is located on the rear plane of said additional lens.

IPC 8 full level
G02B 21/06 (2006.01); **G02B 21/00** (2006.01)

CPC (source: EP US)
G02B 21/0032 (2013.01 - EP US); **G02B 21/06** (2013.01 - EP US)

Citation (search report)
See references of WO 2007121705A1

Citation (examination)
• US 6313943 B1 20011106 - IKADO KAZUYOSHI [JP], et al
• "Catalog 2003", LINOS, pages: A36

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

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
WO 2007121705 A1 20071101; DE 202007018683 U1 20090212; EP 2010953 A1 20090107; JP 2009534694 A 20090924; US 2009103175 A1 20090423; US 8023184 B2 20110920

DOCDB simple family (application)
DE 2007000634 W 20070413; DE 202007018683 U 20070413; EP 07722192 A 20070413; JP 2009505712 A 20070413; US 22640407 A 20070413