

Title (en)
ENDOSCOPIC SYSTEM FEATURING FIBER-PUMPED FLUORESCENT ILLUMINATION

Title (de)
ENDOSKOPISCHES SYSTEM MIT FASERGEPUMPTER FLUORESZENZBELEUCHTUNG

Title (fr)
SYSTÈME ENDOSCOPIQUE À ÉCLAIRAGE PAR FLUORESCENCE À POMPAGE DE FIBRES

Publication
EP 2089752 A1 20090819 (DE)

Application
EP 07819267 A 20071024

Priority
• EP 2007009208 W 20071024
• DE 102006053487 A 20061114

Abstract (en)
[origin: WO2008058612A1] Disclosed is an endoscopic system (1) comprising a excitation beam source (5) located in a proximal supply unit (4), an optical radiation transmission path in an insertion piece (3), and a fluorescence converter at the distal end. A laser diode (6) that emits in the shortwave visible spectral range is used as an excitation beam source (5) while a glass fiber (8) is used as an optical transmission path. The fluorecence converter is suitable for converting into white light and is embodied as a fluorescent element (12, 22) that is mounted downstream of the light emergence surface of the glass fiber (8) as a separate, interchangeable part. Said endoscopic system (1) is characterized in that the distal end of the glass fiber (8) and the fluorescent element (12, 22) are inserted into a lighting fixture (10) which has a light emergence opening (13) that widens in a funnel-shaped manner. Alternatively, the fluorescent element (12, 22) is disposed in a replaceable head (16) which can be coupled to the insertion piece (3) and encompasses additional optical and heat-dissipating components in order to generate an illumination beam and/or measurement beam.

IPC 8 full level
G02B 23/24 (2006.01); **A61B 1/04** (2006.01); **A61B 5/00** (2006.01)

CPC (source: EP US)
A61B 1/00096 (2013.01 - EP US); **A61B 1/00101** (2013.01 - EP US); **A61B 1/00177** (2013.01 - EP US); **A61B 1/0615** (2013.01 - EP US); **A61B 1/063** (2013.01 - EP US); **A61B 1/0653** (2013.01 - EP US); **A61B 1/07** (2013.01 - EP US); **G02B 23/2469** (2013.01 - EP US); **A61B 1/0638** (2013.01 - EP US); **G02B 2207/113** (2013.01 - EP US)

Citation (search report)
See references of WO 2008058612A1

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

DOCDB simple family (publication)
DE 102006053487 A1 20080521; **DE 102006053487 B4 20131219**; EP 2089752 A1 20090819; EP 2336818 A1 20110622; US 2010010314 A1 20100114; WO 2008058612 A1 20080522

DOCDB simple family (application)
DE 102006053487 A 20061114; EP 07819267 A 20071024; EP 11002427 A 20071024; EP 2007009208 W 20071024; US 46597209 A 20090514