

(43) International Publication Date
7 September 2012 (07.09.2012)

(51) International Patent Classification:

A61B 5/00 (2006.01) G01B 9/02 (2006.01)
A61B 17/24 (2006.01)

(21) International Application Number:

PCT/US2012/027261

(22) International Filing Date:

1 March 2012 (01.03.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/448,345 2 March 2011 (02.03.2011) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(88) Date of publication of the international search report:

27 December 2012

(54) Title: HAND-HELD FIXED-FOCUS OPTICAL PROBE

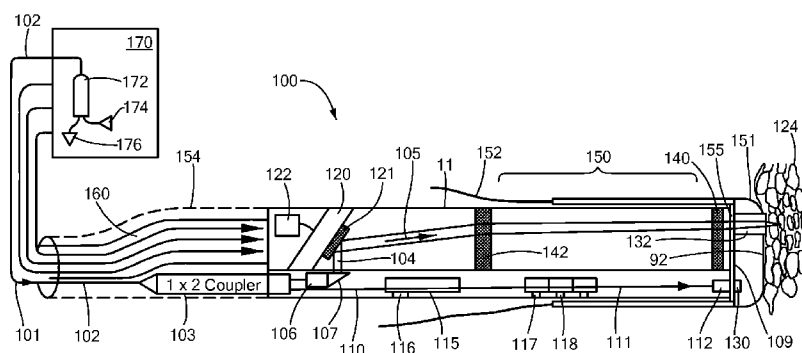


FIG. 1

(57) Abstract: An intraoperative probe and a system for optically imaging a surgically significant volume of tissue or other scattering medium. An illumination source generates an illuminating beam that is conveyed to the vicinity of the tissue and a beam splitter, that may be no more than an optical phase reference, splits the illuminating beam into a sample beam along a sample beam path and a reference beam along a reference beam path. A scanning mechanism scans a portion of the sample beam across a section of the scattering medium, while a detector detects return beams from both the reference beam path and the sample beam path and generates an interference signal. A processor computationally moves an effective focus of the sample beam without physical variation of focus of the sample beam. The probe may have a sterilizable fairing that may be detachable.

A. CLASSIFICATION OF SUBJECT MATTER*A61B 5/00(2006.01)i, A61B 17/24(2006.01)i, G01B 9/02(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61B 5/00; G02B 21/00; G01B 11/02; A61B 6/00; G01B 9/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: OCT, transverse, transparent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002-0183625 A1 (ISAAC OSTROVSKY) 05 December 2002 See abstract, paragraphs [0033],[0036]-[0038], claim 1, and figure 3.	1-43
A	US 2009-0086216 A1 (MARKS DANIEL L. et al.) 02 April 2009 See abstract, paragraphs [0024],[0047]-[0054], claims 1,13, and figure 1.	1-43
A	US 6307633 B1 (MANDELLA; MICHAEL J. et al.) 23 October 2001 See abstract, column 6, line 10 - column 12, line 65, claim 1, and figures 2, 6,8A-8C.	1-43
A	US 2009-0323076 A1 (LI XINGDE et al.) 31 December 2009 See abstract, paragraphs [0063]-[0065],[0082], claim 1, and figures 4,6.	1-43



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

28 AUGUST 2012 (28.08.2012)

Date of mailing of the international search report

29 AUGUST 2012 (29.08.2012)

Name and mailing address of the ISA/KR

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Facsimile No. 82-42-472-7140

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/027261

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