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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR OPTICAL IMAGING USING EARLY ARRIVING PHOTONS

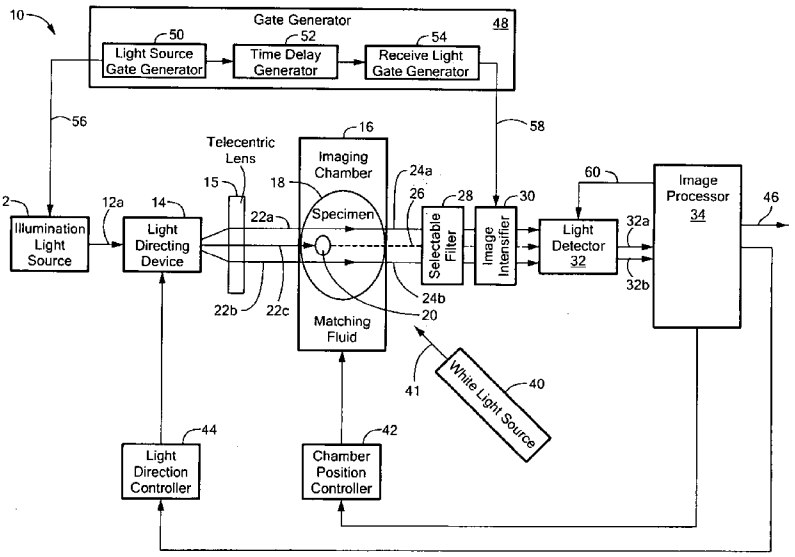


FIG. 1

(57) Abstract: Optical imaging systems and methods use early photons in order to generate processed fluorescent light images of fluorescent material on or within a tissue. The early photons are generated in accordance with a pulsed light source and an early-photon light receiver. The processed fluorescent light images tend to have improved resolution and imaging accuracy compared with fluorescent light images generated with photons beyond the early photons portions.

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A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N21/47 A61B5/00 G01N21/64

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TURNER G M ET AL: "Complete-angle projection diffuse optical tomography by use of early photons" OPTICS LETTERS OPT. SOC. AMERICA USA, [Online] vol. 30, no. 4, 15 February 2005 (2005-02-15), pages 409-411, XP002518463 ISSN: 0146-9592 Retrieved from the Internet: URL:http://www.opticsinfobase.org/DirectPDFAccess/EF9F17ED-BDB9-137E-C1984BC996A8687F_82607.pdf?da=1&id=82607&seq=0&CFID=19582746&CFTOKEN=44899014> [retrieved on 2009-03-10] page 409, column 2, line 19 - page 411, column 2, line 14; figures 1,2	1-64

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NTZIACHRISTOS V ET AL: "Early photon optical tomography" 2005 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (IEEE CAT. NO.05CH37625) IEEE PISCATAWAY, NJ, USA, [Online] vol. 5, 2005, pages v/837-40 Vol. 5, XP002518464 ISBN: 0-7803-8874-7 Retrieved from the Internet: URL:http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1416434&isnumber=30654> [retrieved on 2009-03-10] page V837, column 2, line 17 - page V839, column 1, line 11; figures 1,2 page V840	1-64
X	TURNER GORDON ET AL: "Inversion with early photons" MEDICAL PHYSICS, AIP, MELVILLE, NY, US, vol. 34, no. 4, 21 March 2007 (2007-03-21), pages 1405-1411, XP012103378 ISSN: 0094-2405 page 1405, column 2, line 12 - page 1406, column 2, line 4; figure 1 page 1406, column 2, line 30 - page 1407, column 1, line 13; figure 2	1-64
A	WO 2005/089637 A (GEN HOSPITAL CORP [US]; NTZIACHRISTOS VASILIS [US]; RIPOLL JORGE [GR];) 29 September 2005 (2005-09-29) page 3, line 28 - page 4, line 15 page 8, line 14 - line 27; figure 1 page 15, line 1 - page 21, line 3 page 23, line 23 - page 27, line 15; figures 4,8-11 page 28, line 27 - last line	1-64
A	US 6 321 111 B1 (PERELMAN LEV T [US] ET AL) 20 November 2001 (2001-11-20) column 7, line 8 - line 65; figures 5A,7-10B	1-64

INTERNATIONAL SEARCH REPORT

Information on patent family members

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