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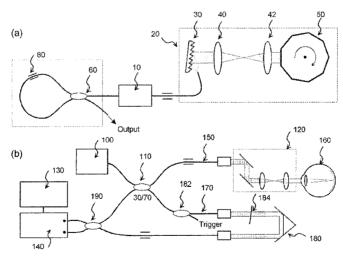
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(54) Title: PROCESSES, ARRANGEMENTS AND SYSTEMS FOR PROVIDING FREQUENCY DOMAIN IMAGING OF A SAMPLE



(57) Abstract: Apparatus, arrangement and method are provided for obtaining information associated with an anatomical structure or a sample using optical microscopy. For example, a radiation can be provided which includes at least one first electro-magnetic radiation directed to be provided to an anatomical sample and at least one second electro-magnetic radiation directed to a reference. A wavelength of the radiation can vary over time, and the wavelength is shorter than approximately 1150 nm. An interference can be detected between at least one third radiation associated with the first radiation and at least one fourth radiation associated with the second radiation. At least one image corresponding to at least one portion of the sample can be generated using data associated with the interference. In addition, at least one source arrangement can be provided which is configured to provide an electro-magnetic radiation which has a wavelength that varies over time. A period of a variation of the wavelength of the first electro-magnetic radiation can be shorter than 1 millisecond, and the wavelength is shorter than approximately 1150 nm.





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 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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International application No PCT/US2007/068214 A. CLASSIFICATION OF SUBJECT MATTER INV. A61B3/12 A61B5/00 G01N21/45 G01B9/02 G01N21/47 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 G01B GO1N 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, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Category* Citation of document, with indication, where appropriate, of the relevant passages WO 02/37075 A (FORSKNINGSCT RISOE [DK]; 1,3-5,7,X 8,10-18, ANDERSEN PETER E [DK]; BJARKLEV ANDERS 26,27, [DK];) 10 May 2002 (2002-05-10) 37-39 Υ abstract 20, 29-33, 35,36, 48,49 figures 1-4,13 page 3, line 8 - page 5, line 12 page 8, line 18 - line 33 page 4, line 1 - line 2 page 10, line 18 - line 27 claims 2,24,26 -/--V Surther decuments are listed in the continuation of Boy C

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European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Tommaseo, Giovanni				

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