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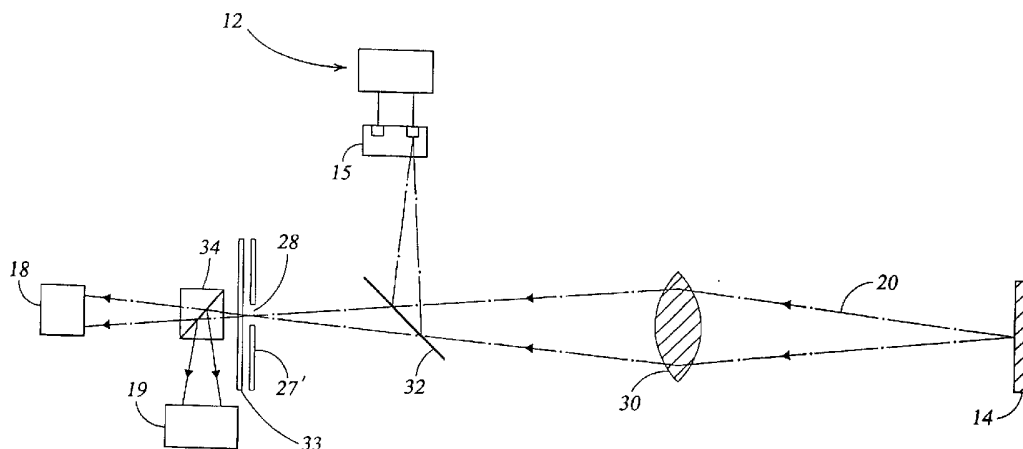
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(54) Title: IMAGING APPARATUS AND METHODS FOR NEAR SIMULTANEOUS OBSERVATION OF DIRECTLY SCATTERED LIGHT AND MULTIPLY SCATTERED LIGHT



(57) Abstract: An apparatus and a method are disclosed for separating light remitted by a target into a directly scattered light component and at least one multiply scattered light component, detecting the components at least substantially simultaneously, and forming independent sets of image information from each component. The apparatus and the method can be employed in conjunction with techniques such as scanning and tomography to attain precise imaging of biological tissue, including the retina of the eye.



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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.

INTERNATIONAL SEARCH REPORT

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PCT/US 02/24254

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B3/12 G01N21/47 G02B27/10

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)
IPC 7 A61B G01N G02B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 02 088818 A (SCHEPENS EYE RES INST) 7 November 2002 (2002-11-07) claims 1-51; figures 1-14 ---	1-63
Y	US 6 236 877 B1 (WEBB ROBERT H ET AL) 22 May 2001 (2001-05-22) column 4, line 25 -column 6, line 63; figures 1-3 ---	1-63
Y	US 6 003 993 A (WEBB ROBERT) 21 December 1999 (1999-12-21) page 5, line 46 -page 6, line 19; claim 1; figures 1,7 ---	1-63
A	US 5 303 709 A (REITER KLAUS ET AL) 19 April 1994 (1994-04-19) the whole document ---	1, 25, 39, 41, 43, 46, 48, 52
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Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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* & * document member of the same patent family

Date of the actual completion of the international search 20 March 2003	Date of mailing of the international search report 27/03/2003
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Name and mailing address of the ISA 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	Authorized officer THEOPISTOU, P
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Application No
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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.
A	<p>ELSNER A E ET AL: "Multiply scattered light tomography and confocal imaging: detecting neovascularization in age-related macular degeneration" OPTICS EXPRESS, OPTICAL SOCIETY OF AMERICA, WASHINGTON, DC,, US, vol. 7, no. 2, 10 July 2000 (2000-07-10), pages 95-106, XP002186422 ISSN: 1094-4087 page 96 -page 100 -----</p>	1-63

INTERNATIONAL SEARCH REPORT

Information on patent family members

Original Application No

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