



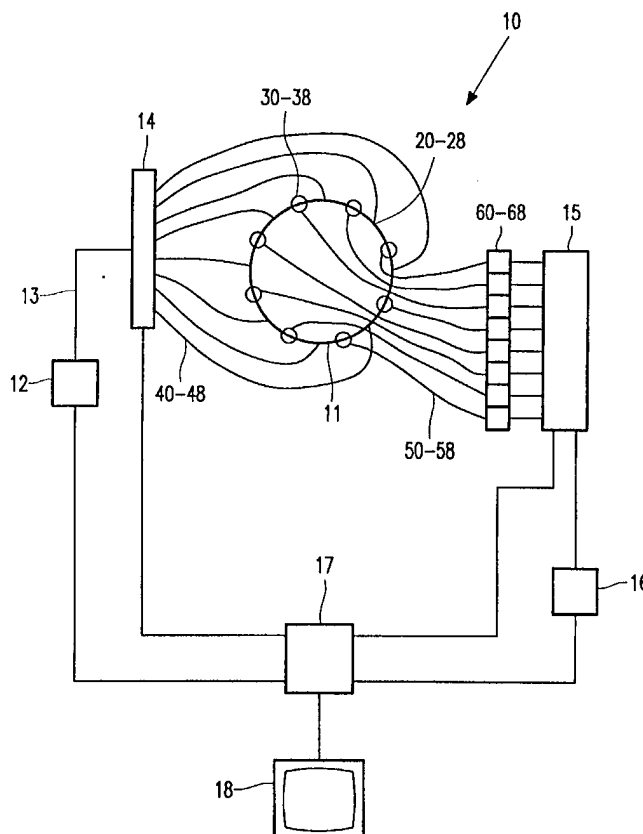
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/IB97/01439 (22) International Filing Date: 13 November 1997 (13.11.97) (30) Priority Data: 96203419.5 3 December 1996 (03.12.96) EP <i>(34) Countries for which the regional or international application was filed:</i> NL et al. (71) Applicant: PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS NORDEN AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventor: COLAK, Sel, Brian; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). (74) Agent: SCHOUTEN, Marcus, M.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).		(81) Designated States: JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 13 August 1998 (13.08.98)

(54) Title: METHOD AND APPARATUS FOR IMAGING AN INTERIOR OF A TURBID MEDIUM

(57) Abstract

The invention relates to a method of imaging an interior of a turbid medium, for example a part of a breast of a human female. In the method a turbid medium is irradiated with light and measurement of the intensity of light propagated along a plurality of light paths through the turbid medium is measured. An image of the interior of the turbid medium is reconstructed from the intensities measured. Furthermore, the method according to the invention comprises the determination of possible strengths assignable to each pixel of the image from combinations of weighting functions and differences between expected photon fluences and measured photo fluences from the intensities measured. A distribution function is made up from the possible strength determined. In a last step the image is determined from the distribution function. Further steps can be carried out to correct objects of high strength in the image.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 97/01439

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: A61B 5/00, G01N 21/49

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)

IPC6: A61B, G01N, G06T

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

SE,DK,FI,NO classes as above

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

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0627698 A1 (HAMAMATSU PHOTONICS K.K.), 7 December 1994 (07.12.94) --	1-6
A	EP 0633527 A1 (HAMAMATSU PHOTONICS K.K.), 11 January 1995 (11.01.95) -- -----	1-6

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25 June 1998

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INTERNATIONAL SEARCH REPORT

Information on patent family members

09/06/98

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0627698 A1	07/12/94	NONE	
EP 0633527 A1	11/01/95	NONE	