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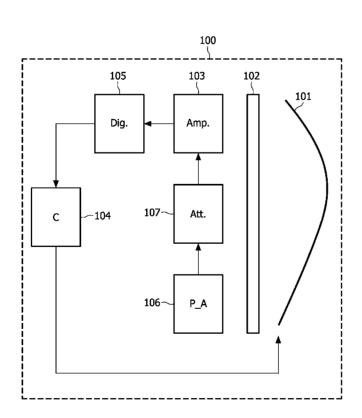
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[Continued on next page]

(54) Title: AN ULTRASOUND DEVICE FOR DETECTING PRESENCE OR ABSENCE OF CAVITATION EVENTS



(57) Abstract: This invention relates to an ultrasound device for detecting presence or absence of cavitation events. An ultrasound transducer receives emitted and reflected ultrasound waves from tissues within a specific target volume and the received ultrasound waves are subsequently converted into a detection signal. A control unit then processes the detected signal for determining whether a cavitation event is detected. A liquid lens having an adjustable focal point is placed in front of the ultrasound transducer such that the received ultrasound waves go through the liquid lens prior to be received by the ultrasound transducer. The lens is controlled by the control unit such that in response to a detection of a cavitation event the focal position of the lens is adjusted substantially closer to the spatial location of the detected cavitation event.

FIG. 1

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 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{A61N} & \mbox{A61B} & \mbox{G10K} & \mbox{G01S} \\ \end{array}$

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)

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X	US 2006/074314 A1 (SLAYTON MICHAEL H [US] ET AL) 6 April 2006 (2006-04-06)	1,8,9
Y	abstract paragraphs [0027], [0029], [0041] - [0043], [0045], [0053], [0054], [0059], [0060] figures 4A,11	2-7
Υ.	WO 03/069380 A (KONINKL PHILIPS ELECTRONICS NV [NL]; FEENSTRA BOKKE J [NL]; KUIPER STE) 21 August 2003 (2003-08-21) cited in the application figures 1-3 abstract page 3, line 10 - page 4, line 10	2-7
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X Further documents are listed in the continuation of Box C.	X See patent family annex.
A document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family
Date of the actual completion of the international search 28 January 2009	Date of mailing of the international search report $10/02/2009$
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Jansen, Birte

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