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— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: HYDROGEL ULTRASOUND COUPLING DEVICE

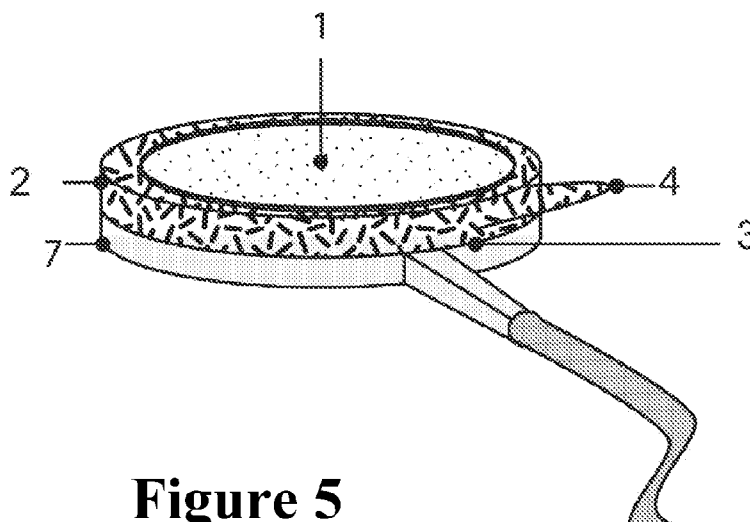


Figure 5

(57) Abstract: The present invention relates to an ultrasound coupling device that includes a gel component and a coupling compartment. The present invention also relates to various kits and methods for using the ultrasound coupling device with low-intensity ultrasound transducers and therapy. The present invention also relates to methods of making the ultrasound coupling device of the present invention. The present invention further relates to an array that includes a plurality of ultrasound coupling devices of the present invention, and methods of using the array.



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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 (Rule 48.2(h))*

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/041787**A. CLASSIFICATION OF SUBJECT MATTER***A61B 8/00(2006.01)i, A61N 7/00(2006.01)i*

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 8/00; A61B 17/20; A61N 7/00; A61F 5/00; G01N 29/28; A61N 7/02; A61B 8/02; A61B 5/00

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

Korean utility models and applications for utility models
Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: ultrasound, transducer, gel, compartment

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 2010-0152624 A1 (TANIS KEVIN J. et al.) 17 June 2010 See abstract, paragraphs 113-119, 164, and figures 7-9.	1-5, 9-10, 15, 17 , 20-23 6-8, 11-14, 16, 18-19 27-28
Y A	JP 05-309092 A (FUJITSU LTD) 22 November 1993 See paragraph 24.	6-8 1-5, 9-23, 27-28
Y A	JP 2009-528111 A (SAMUEL GEORGE et al.) 06 August 2009 See paragraph 67, fig 5.	11-14, 16, 28 1-10, 15, 17-23, 27
Y A	US 6234990 B1 (STEPHEN ROWE et al.) 22 May 2001 See abstract, column 4, lines 41-62, column 6, line 26-column 8, line 24, and figures 1-6.	18-19 1-17, 20-23, 27-28
X Y	US 2009-0198157 A1 (BABAEV EILAZ) 06 August 2009 See abstract, paragraphs 19-25, and figures 1-3.	1, 27 28

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"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

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INTERNATIONAL SEARCH REPORT

International 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		2-23
X	US 2006-0184024 A1 (LUIZ B. DA SILVA et al.) 17 August 2006	1
A	See abstract, paragraphs 27-30, and figure 1.	2-23,27-28

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2011/041787**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: 24-26, 29
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 24-26 and 29 pertain to methods for treatment of human or animal body by therapy, as well as diagnostic methods, and thus relate to a subject matter which this International Searching Authority is not required to search under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT.
2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/041787

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010-0152624 A1	17.06.2010	AT 439165 T AU 2006-311299 A1 CA 2628824 A1 DE 602006008492 D1 EP 1948315 A1 ES 2329722 T3 JP 2009-514616 A WO 2007-056734 A1	15.08.2009 18.05.2007 18.05.2007 24.09.2009 30.07.2008 30.11.2009 09.04.2009 18.05.2007
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